

上海康阔光智能技术有限公司

Comcore Optical Intelligence Technologies Co., Ltd.



2019

Product Catalog



# CERTIFICATE

The Certification Body  
of TÜV SÜD Management Service GmbH  
certifies that

**Comcore Optical Intelligence Technologies Co., Ltd.**  
No.1279, Huadong Road, Pudong District, Shanghai City, P. R. China  
Post Code: 201209

Unified social credit code / Organization code: 91310115MA1HA7294Y

has established and applies  
a Quality Management System for

**Design, Development, Manufacture and Sales of Optical Communication  
Equipment, Fiber Optical Passive Devices and Fiber Optic Sensors.**

An audit was performed, Report No. **70013692**.  
Proof has been furnished that the requirements  
according to

**ISO 9001:2015**

are fulfilled.

The certificate is valid in conjunction

with the main-certificate from **2018-10-01** until **2020-08-02**.

The certified organization shall undergo and pass  
the regular surveillance audit to maintain the validity of this certificate.

Certificate Registration No.: **12 100 14700/03 TMS**.

Information about this certificate can be inquired at the official website  
of Certification and Accreditation Administration of the People's Republic of China ([www.cnca.gov.cn](http://www.cnca.gov.cn)).

*M. Wegmann*

Product Compliance Management  
Munich, 2018-10-25



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# Company Profile

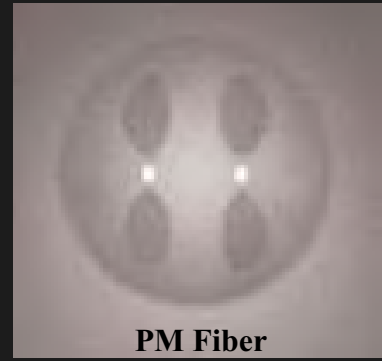
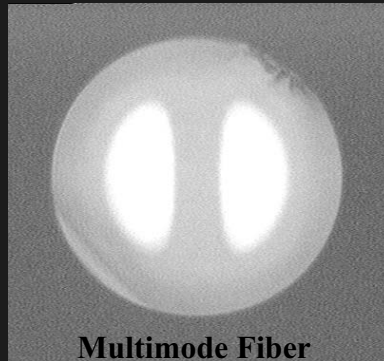
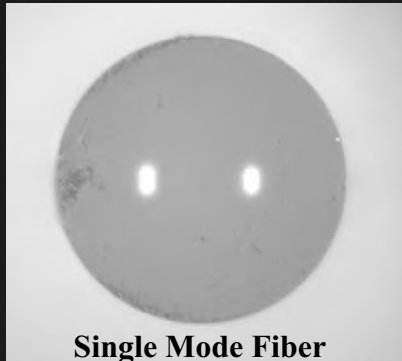
Comcore Technologies located in Shanghai has been founded by Dr. Huang Yong who is a well-known expert in fiber optic technologies. The company mainly provides several different product families, including ultra-high reliability fused fiber devices to be used in high-end optical instrumentation, optical communication systems, data centers, optical sensing systems and other areas of scientific and technological development, also including high performance fiber optic current sensors (FOCS) to be used in smart electrical power grids, nuclear power systems, metallurgy, high-speed trains and other fields. More important, the company developed the current sensing fiber so-called special high-birefringence elliptical-polarization maintaining fiber using their unique intellectual property rights to ensure the long-term stability of FOCS. In addition, Comcore invented a universal PM fiber splicer by using self-owned intellectual property, and the success of developing this splicer broke the decades-long monopoly of imported splicers in the nation. This PM fiber splicer became the first choice in the industry as its high cost performance, and had been used in many universities, research institutes and manufacturing enterprises.

Comcore Technologies will serve the national strategy by taking science and technology innovation as the driving force, concentrating on the industry, striving and winning by quality, open and cooperative and common development as the business philosophy.

# Comcore Technologies' Platform

## Superfusion™ Process

### •The Cross-Sectional Shapes in Fused Region



### •Product Features

- Enhance the sturdiness of coupling region due to unitary cross section.
- Insensitive optical characteristics of devices to the environment variation.
- Minimize the twisted effect by cylindrical structure of coupling region.
- Minimize the possibility of device degradation and ultimate failure due to moisture enters these micro-cracks and proliferates them by eliminating micro-cracks on the surface of fibers in both coupling and non-coupling region.
- Reduce the polarization dependent loss for all of related products.

### •Related Unique Products in the World

- Ultra-low insertion loss (<0.05dB) 980/1550nm dissimilar fiber WDMs
- PDL-free (<0.01dB) broadband splitters / couplers (mixers)
- Ultra-low loss multimode couplers / splitters from 850nm to 1600nm
- 1x3 (3x3) polarization-maintaining fiber splitters / couplers (Mixers)

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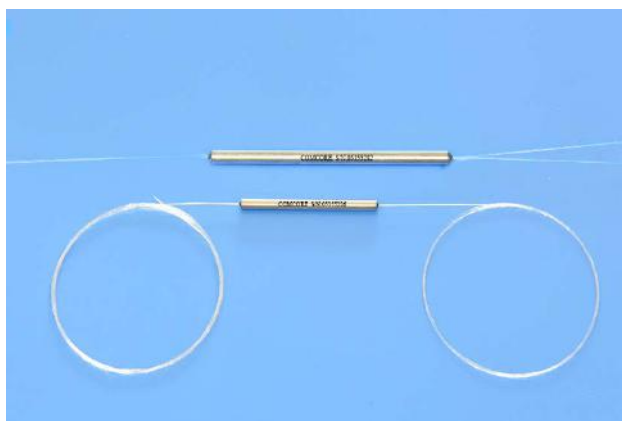
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**Comcore's Fused Polarization-  
Maintaining Fiber Products Are  
Your Foundation To Success**

# 1x2(2x2) Compact Fused Hybrid PM Fiber Tap



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifiers
- Power Monitoring
- Telecomm Systems
- Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.6	0.8	0.3	0.5
Excess Loss	Max.	0.8	1.0	0.5	0.7
PER for Through Port	Min.	20	17	20	17
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S4=Ø3x35mm / S5= Ø3x40mm / S6=Ø3x54mm			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99.5/0.5	±0.2	±0.3
99/1	±0.4	±0.5
98/2	±0.7	±1.0
95/5	±1.8	±2.1
90/10	±2.5	±3.0
80/20	±3.0	±4.0

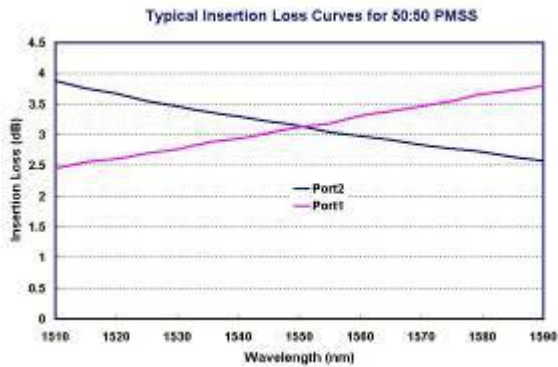
Fiber Type	PM Fiber Port	SM Fiber Port
Type 1	Panda Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Large Mode Area Panda Fiber	HI1060 Fiber or Equivalent Fiber

## Ordering Information

P	M	C	T						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector		
4=1550nm	1=1x2	05=99.5:0.5	P=Premium	3=S4 with	1=Type 1	0=0.5m	0=None		
5=1480nm	2=2x2	99=99:1	A=A grade	250µm bare	2=Type 2	1=0.75m	1=FC/PC		
7=1310nm		98=98:2		fiber pigtail	3=Type 3	2=1.0m	2=FC/APC		
8=1064nm		95=95:5		4=S5 with	4=Type 4	3=1.5m	3=FC/APC		
9=980nm		90=90:10		0.9mm loose		4=2.0m	7=FC/U/PC		
L=780nm		80=80:20		tube		S=Specify			
K=830nm		...		5=S6 with					
P=2000nm		...		0.9mm loose					
S=Specify		...		tube					

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Fused Hybrid PM Fiber Standard Tap



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifiers
- Power Monitoring
- Telecomm Systems
- Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ. dB	0.4	0.6	0.2	0.3
Excess Loss	Max. dB	0.6	0.8	0.4	0.6
PER for Through Port	Min. dB	20	17	20	17
Operating power	Max. W	2			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S5= Ø3x40 / S6=Ø3x54 / S8=Ø3x76 / M1=9x16x90			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99.5/0.5	±0.2	±0.3
99/1	±0.4	±0.5
98/2	±0.6	±0.8
95/5	±1.5	±1.8
90/10	±2.0	±2.5
80/20	±2.5	±3.0

Fiber Type	PM Fiber Port	SM Fiber Port
Type 1	Panda Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Large Mode Area Panda Fiber	HI1060 Fiber or Equivalent Fiber

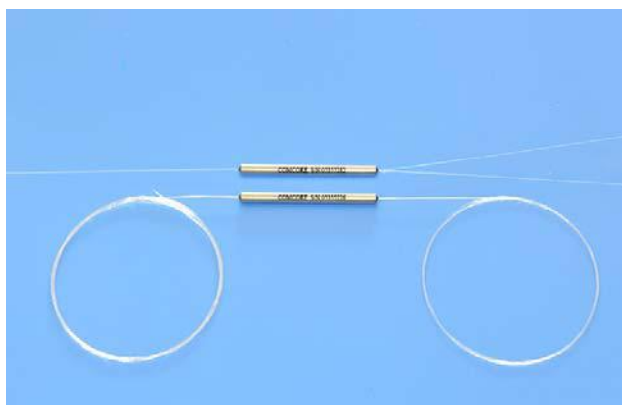
## Ordering Information

P	M	S	T						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector		
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 ...	P=Premium A=A grade	4=S5 with 250µm bare fiber pigtail 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	1=Type 1 2=Type 2 3=Type 3 4=Type 4	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UFC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x2(2x2) Polarization-Insensitive Fused Hybrid PM Fiber Tap



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifiers
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.5	0.7	0.4	0.6
Excess Loss	Max.	0.7	0.9	0.6	0.8
Polarization Dependent Loss	Max.	0.1	0.2	0.1	0.2
PER for Through Port	Min.	20	18	20	18
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S5= Ø3x40 / S6=Ø3x54 / S8=Ø3x76			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99.5/0.5	±0.2	±0.3
99/1	±0.4	±0.5
98/2	±0.6	±0.8
95/5	±1.5	±1.8
90/10	±2.0	±2.5
80/20	±2.5	±3.0

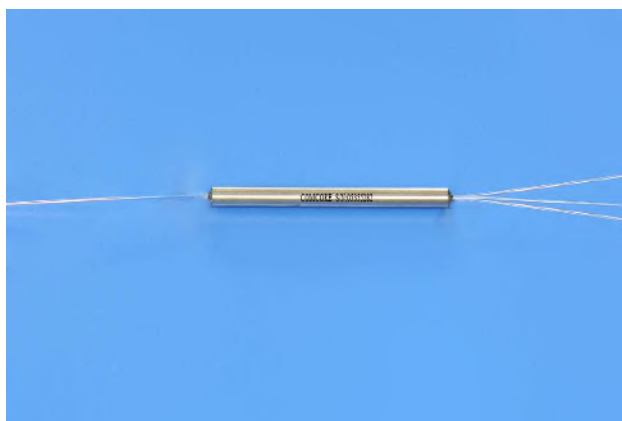
Fiber Type	PM Fiber Port	SM Fiber Port
Type 1	Panda Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Large Mode Area Panda Fiber	HI1060 Fiber or Equivalent Fiber

## Ordering Information

P	I	B	T						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector		
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 ... ...	P=Premium A=A grade	4=S5 with 250µm bare fiber pigtail 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube	1=Type 1 2=Type 2 3=Type 3 4=Type 4	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UJPC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3 Fused Hybrid PM Fiber Standard Tap



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Telecomm System
- Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade	
Port Configuration		1x3				
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000		
Bandwidth	nm	±20				
Excess Loss	Typ.	dB	0.5	0.7	0.3	0.4
Excess Loss	Max.	dB	0.7	0.9	0.5	0.8
PER for Through Port	Min.	dB	18	15	20	17
Operating power	Max.	W	2			
Operating Temperature	°C	-40 to +85				
Storage Temperature	°C	-50 to +85				
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90				

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)			
	Premium		A grade	
	Main Port	Tap Port	Main Port	Tap Port
0.5/99/0.5	±0.4	±0.2	±0.5	±0.3
1/98/1	±0.6	±0.4	±0.8	±0.5
2.5/95/2.5	±1.5	±0.8	±1.8	±1.0
5/90/5	±2.0	±1.2	±2.5	±1.3
10/80/10	±2.5	±1.5	±3.0	±1.8

Fiber Type	Common Port	Through Port	Coupling Port 1	Coupling Port 2
Type 1	Panda Fiber	Panda Fiber	SMF-28e Fiber or Equivalent Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Panda Fiber	Panda Fiber	SMF-28e Fiber or Equivalent Fiber	Panda Fiber
Type 5	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber
Type 6	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	M	S	T								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	3=1x3	99=0.5:99:0.5 98=1:98:1 95=2.5:95:2.5 90=5:90:5 80=10:80:10	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	1=Type 1 2=Type 2 3=Type 3 4=Type 4 5=Type 5 6=Type 6	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x3 Polarization-Insensitive Fused Hybrid PM Fiber Tap



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifiers
- Power Monitoring
- Telecomm System
- Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade	
Port Configuration		1x3				
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000		
Bandwidth	nm	±20				
Excess Loss	Typ.	dB	0.5	0.7	0.4	0.6
Excess Loss	Max.	dB	0.7	0.9	0.6	0.8
Polarization Dependent Loss	Max.	dB	0.1	0.2	0.1	0.2
PER for Through Port	Min.	dB	18	15	20	17
Operating power	Max.	W	2			
Operating Temperature	°C		-40 to +85			
Storage Temperature	°C		-50 to +85			
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90				

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)			
	Premium		A grade	
	Main Port	Tap Port	Main Port	Tap Port
0.5/99/0.5	±0.4	±0.2	±0.5	±0.3
1/98/1	±0.6	±0.4	±0.8	±0.5
2.5/95/2.5	±1.5	±0.8	±1.8	±1.0
5/90/5	±2.0	±1.2	±2.5	±1.3
10/80/10	±2.5	±1.5	±3.0	±1.8

Fiber Type	Common Port	Through Port	Coupling Port 1	Coupling Port 2
Type 1	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber	Panda Fiber
Type 5	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber
Type 6	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	I	B	T	Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm	3=1x3	99=0.5:99:0.5 98=1:98:1 95=2.5:95:2.5 90=5:90:5 80=10:80:10	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	1=Type 1 2=Type 2 3=Type 3 4=Type 4 5=Type 5 6=Type 6	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) 80µm Fused PM Fiber Splitter



## Product Features

- Compact Size
- Low Excess Loss
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Ultra-P	Premium	A grade	Ultra-P	Premium	A grade	
Port Configuration		1x2 or 2x2						
Central Wavelength	nm	780, 830, 850, 980, 1030, 1064			1310, 1480, 1550, 2000			
Bandwidth	nm	±20						
Excess Loss	Typ.	dB	0.4	0.6	0.8	0.2	0.4	0.7
Excess Loss	Max.	dB	0.6	0.8	1.0	0.35	0.6	0.9
Polarization Extinction Ratio	Min.	dB	18	17	15	20	18	16
Operating power	Max.	W	2					
Operating Temperature	°C	-40 to +85						
Storage Temperature	°C	-50 to +85						
Package Type	mm	S2=Ø3x25.4/ S3=Ø3x30						

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

## Splitting Ratio & Its Tolerance

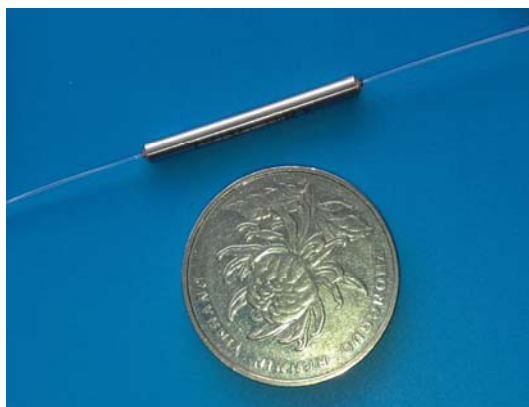
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)		
	Ultra-Premium	Premium	A grade
99/1	±0.3	±0.5	±0.7
98/2	±0.6	±0.8	±1.0
95/5	±1.2	±1.5	±1.7
90/10	±2.0	±2.2	±2.8
80/20	±2.2	±2.5	±3.3
70/30	±2.7	±3.0	±4.5
60/40	±3.5	±4.0	±6.0
50/50	±4.0	±5.0	±8.0

## Ordering Information

P	M	C	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm L=780nm K=830nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	U=Ultra- P P=Premium A=A grade	1=S2 with 165µm bare fiber pigtail 2=S3 with 165µm bare fiber pigtail	F=80/165µm bare Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

## 1x2(2x2) Mini Fused PM Fiber Splitter (Mixer)



### Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

### Product Applications

- Fiber Gyroscope
- Power Monitoring
- Coherent Communication

### Specifications

Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Central Wavelength	nm	1310,1550	
Bandwidth	nm	±20	
Excess Loss	Typ. dB	0.3	0.4
Excess Loss	Max. dB	0.5	0.6
Polarization Extinction Ratio (23°C)	Min. dB	20	18
Polarization Extinction Ratio (-40~85°C)	Min. dB	17	16
Operating power	Max. W	2	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S1=Ø2.4x25	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

### Splitting Ratio & Its Tolerance

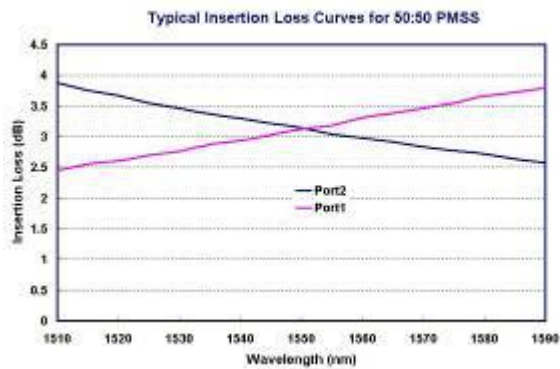
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.7
98/2	±0.8	±1.0
95/5	±1.0	±1.5
90/10	±1.5	±2.0
80/20	±2.0	±2.5
70/30	±2.5	±3.0
60/40	±2.8	±3.5
50/50	±3.0	±4.0

### Ordering Information

P	M	C	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 7=1310nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	0=S1 with 250µm bare fiber pigtail	E=Panda Fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) 400µm Fused PM Fiber Standard Splitter (Mixer)



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Central Wavelength	nm	1480, 1550, 2000	
Bandwidth	nm	±20	
Excess Loss	Typ. dB	0.2	0.3
Excess Loss	Max. dB	0.4	0.6
Polarization Extinction Ratio	Min. dB	20	17
Operating power	Max. W	2	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6=Ø3x54	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

## Splitting Ratio & Its Tolerance

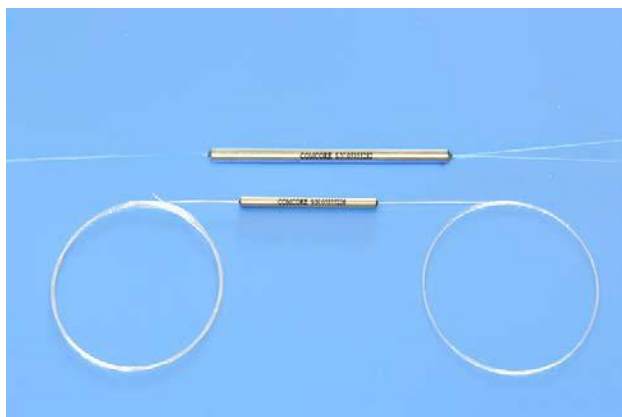
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±4.8
50/50	±5.0	±6.0

## Ordering Information

P	M	S	S						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector		
4=1550nm 5=1480nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 with 400µm bare fiber pigtail	G=400µm Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Compact Fused PM Fiber Splitter (Mixer)



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1030,1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.6	0.8	0.4	0.6
Excess Loss	Max.	0.8	1.0	0.6	0.8
Polarization Extinction Ratio	Min.	18	15	20	17
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S2=Ø3x25.4 / S4=Ø3x35 / S5= Ø3x40 / S6=Ø3x54			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

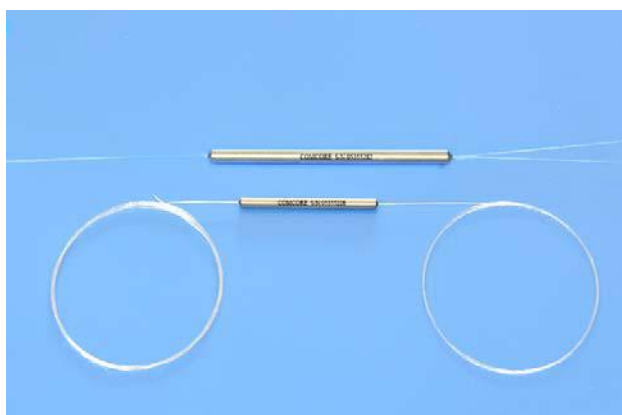
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±4.8
50/50	±5.0	±6.0

## Ordering Information

P	M	C	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	1=S2 with 250µm bare fiber pigtail 3=S4 with 250µm bare fiber pigtail 4=S5 with 0.9mm loose tube 5=S6 with 0.9mm loose tube	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Compact Polarization-Insensitive Fused PM Fiber Splitter



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Operating on both Fast and Slow Axis
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.6	0.8	0.4	0.6
Excess Loss	Max.	0.8	1.0	0.6	0.8
Polarization Extinction Ratio	Min.	18	15	20	17
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S4=Ø3x35 / S5=Ø3x40 / S6=Ø3x54			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±4.8
50/50	±5.0	±6.0

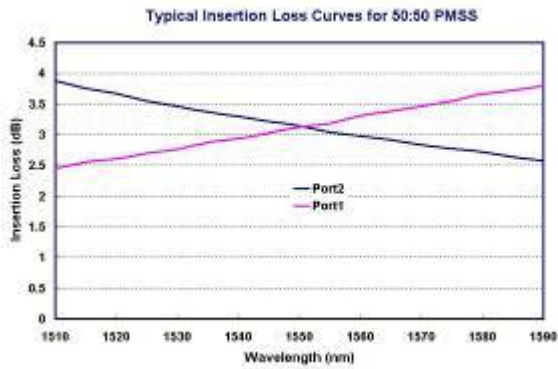
## Ordering Information

P	I	C	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	3=S4 with 250µm bare fiber pigtail 4=S5 with 0.9mm loose tube 5=S6 with 0.9mm loose tube	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x2(2x2) Fused PM Fiber Standard Splitter (Mixer)



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2					
Central Wavelength	nm	450~685		780~1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20					
Excess Loss	Typ. dB	1.0	1.2	0.6	0.8	0.2	0.3
Excess Loss	Max. dB	1.4	1.6	0.8	1.0	0.4	0.6
Polarization Extinction Ratio	Min. dB	15	12	18	15	20	17
Operating power	Max. W	2					
Operating Temperature	°C	-40 to +85					
Storage Temperature	°C	-50 to +85					
Package Type	mm	S5=Ø3x40 / S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90					

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

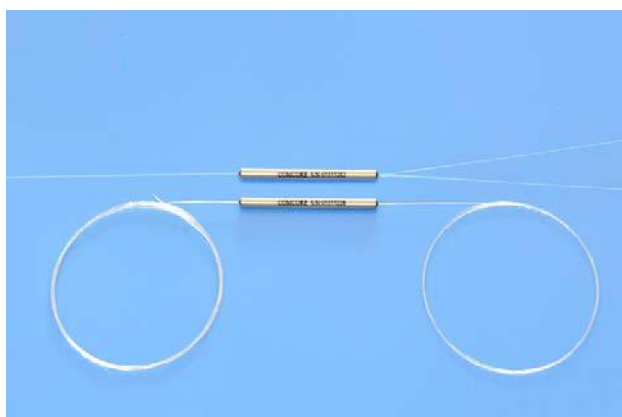
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±4.8
50/50	±5.0	±6.0

## Ordering Information

P	M	S	S						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector		
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm I=685nm E=650nm B=633nm C=532nm D=450nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	4=S5 with 250µm bare fiber pigtail 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Polarization-Insensitive Fused PM Fiber Splitter (Mixer)



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 850, 980, 1030,1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.6	0.8	0.4	0.6
Excess Loss	Max.	0.8	1.0	0.6	0.8
Polarization Dependent Loss	Max.	0.1	0.2	0.1	0.2
Polarization Extinction Ratio	Min.	18	15	20	17
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S5=Ø3x40 / S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

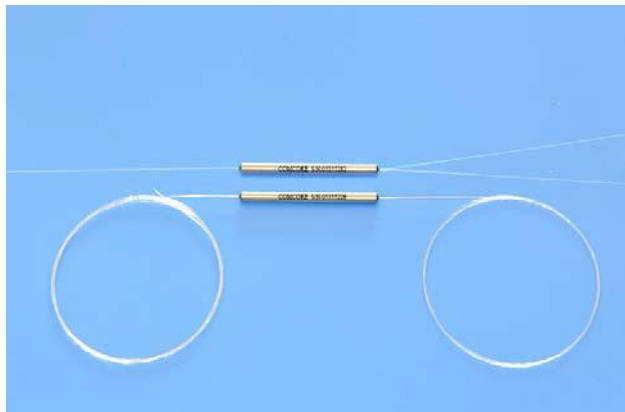
Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±5.0
50/50	±5.0	±7.0

## Ordering Information

P	I	N	S							
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector			
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm P=2000nm S=Specify	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	4=S5 with 250µm bare fiber pigtail 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive Fused PM Fiber Broadband Splitter



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	A grade
Port Configuration			1x2	
Central Wavelength	nm		1310, 1480, 1550, 2000	
Bandwidth	nm		±40	
Excess Loss	Typ.	dB	0.4	0.6
Excess Loss	Max.	dB	0.6	0.8
Polarization Dependent Loss	Max.	dB	0.1	0.2
Polarization Extinction Ratio	Min.	dB	20	17
Splitting Ratio Tolerance	Max.	%	±5	±7
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

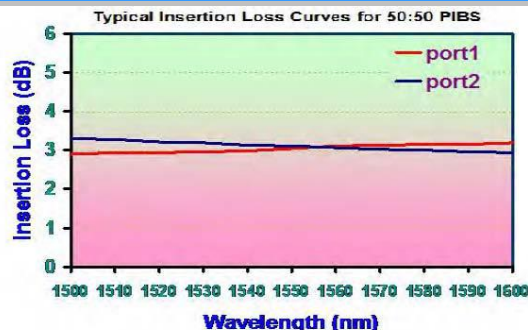
Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
70/30	±3.0	±4.7
60/40	±4.0	±5.8

## Typical Spectrum

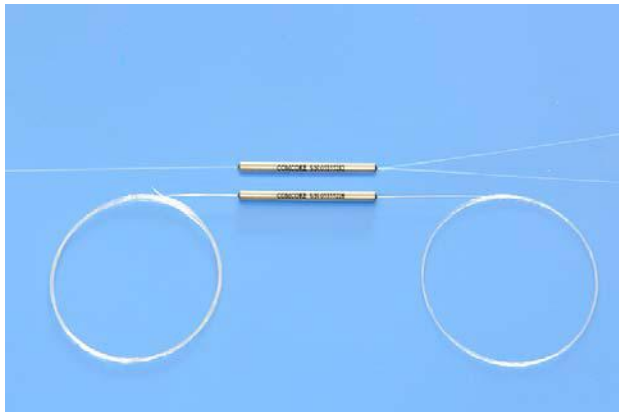


## Ordering Information

P	I	B	S		1						
Wavelength 4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	Structure 1=1x2	Splitting Ratio 50=50:50 60=60:40 70=70:30	Grade P=Premium A=A grade	Package 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	Fiber Type E=Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Polarization-Insensitive Dual-Window PM Fiber Splitter



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Central Wavelength	nm	1310±20 & 1550±20	
Excess Loss	Typ.	0.4	0.6
Excess Loss	Max.	0.6	0.8
Polarization Dependent Loss	Max.	0.1	0.2
Polarization Extinction Ratio	Min.	20	17
Splitting Ratio Tolerance	Max.	±5	±7
Operating power	Max.	2	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)	
	Premium	A grade
99/1	±0.5	±0.6
98/2	±0.8	±1.0
95/5	±1.5	±1.7
90/10	±2.2	±2.4
80/20	±2.5	±3.0
70/30	±3.0	±3.7
60/40	±4.0	±5.0
50/50	±5.0	±7.0

## Ordering Information

P	I	D	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				0=1310&1550	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber	0=0.5m 1=1.0m 2=1.5m 3=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Ultra-Low Ratio Fused PM Fiber Splitter (Mixer)



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Insertion Loss for Through Port	Max. dB	0.2	0.3	0.1	0.15
Insertion Loss for 0.1% Tap Port	dB	30±3	30±3	30±3	30±3
Insertion Loss for 0.01% Tap Port	dB	40±4	40±4	40±4	40±4
Insertion Loss for 0.001% Tap Port	dB	50±5	50±5	50±5	50±5
Polarization Extinction Ratio (Through Port)	dB	18	15	20	17
Operating power	Max. W	2			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S5=Ø3x40 / S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90			

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Ordering Information

P	L	S	T								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector
				4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm P=2000nm S=Specify	1=1x2 2=2x2	01=0.1% 02=0.01% 03=0.001%	P=Premium A=A grade	4=S5 with 250um bare fiber pigtail 5=S6 with 250um bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3 Fused PM Fiber Standard Splitter



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

Specifications		Splitting Ratio: 33:33:33			
Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x3			
Central Wavelength	nm	780, 830, 850, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ. dB	0.8	1.0	0.3	0.5
Excess Loss	Max. dB	1.0	1.2	0.6	0.8
Polarization Extinction Ratio	Min. dB	16	14	18	16
Splitting Ratio Tolerance	Max. %	±6	±8	±6	±8
Operating power	Max. W	2			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)			
	Premium		A-Grade	
	Through Port	Coupling Port	Through Port	Coupling Port
5:90:5	±2.5	±1.5	±3.0	±1.8
10:80:10	±2.8	±1.6	±3.2	±2.0
15:70:15	±3.0	±1.8	±3.5	±2.4
20:60:20	±3.3	±2.0	±3.7	±2.5
25:50:25	±3.5	±2.4	±4.0	±3.0
30:40:30	±4.0	±3.0	±5.0	±4.0
33:33:33	±6.0	±6.0	±8.0	±8.0
35:30:35	±4.0	±5.0	±5.0	±6.0
40:20:40	±5.0	±6.0	±6.0	±7.0

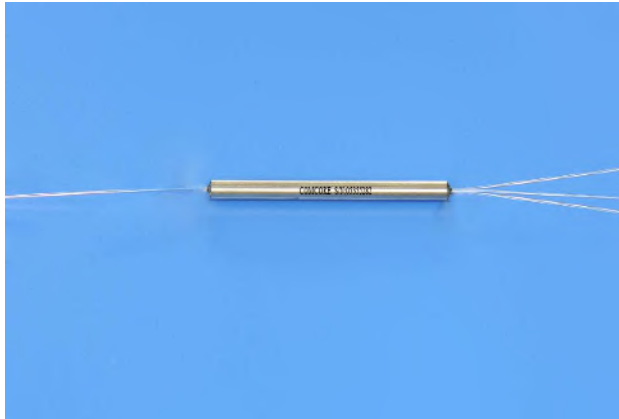
## Ordering Information

P	M	S	S		3						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector				
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm L=780nm K=830nm P=2000nm S=Specify	3=1x3	90=5:90:5 80=10:80:10 70=15:70:15 60=20:60:20 50=25:50:25 40=30:40:30 33=33:33:33 30=35:30:35 20=40:20:40 ...	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x3 Polarization-Insensitive Fused Hybrid PM Fiber Splitter



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x3			
Central Wavelength	nm	780, 830, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.5	0.7	0.4	0.6
Excess Loss	Max.	0.7	0.9	0.6	0.8
PDL for PM Channel	Max.	0.1	0.2	0.1	0.2
PER for PM Channel	Min.	18	15	18	16
Operating power	Max.	2			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)			
	Premium		A-Grade	
	Through Port	Coupling Port	Through Port	Coupling Port
5:90:5	±2.5	±1.5	±3.0	±1.8
10:80:10	±2.8	±1.6	±3.2	±2.0
20:60:20	±3.3	±2.0	±3.7	±2.5
25:50:25	±3.5	±2.4	±4.0	±3.0
33:33:33	±6.0	±6.0	±8.0	±8.0
40:20:40	±5.0	±6.0	±6.0	±7.0

Fiber Type	Common Port	Through Port	Coupling Port 1	Coupling Port 2
Type 1	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	HI1060 Fiber or Equivalent Fiber
Type 3	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	HI780C Fiber or Equivalent Fiber
Type 4	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber	Panda Fiber
Type 5	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber
Type 6	Panda Fiber	Panda Fiber	HI780C Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	I	B	S		3						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector				
4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	3=1x3	90=5:90:5 80=10:80:10 60=20:60:20 50=25:50:25 33=33:33:33 20=40:20:40	P=Premium A=A grade	5=S6 with 250um bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	1=Type 1 2=Type 2 3=Type 3 4=Type 4 5=Type 5 6=Type 6	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m 5=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3 Polarization-Insensitive Fused PM Fiber Splitter



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x3			
Central Wavelength	nm	780, 830, 850, 980, 1030, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±20			
Excess Loss	Typ.	0.8	1.0	0.4	0.6
Excess Loss	Max.	1.0	1.2	0.6	0.8
Polarization Dependent Loss	Max.	0.1	0.2	0.1	0.2
Polarization Extinction Ratio	Min.	16	14	18	16
Operating power	Max.	2 W			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90			

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)			
	Premium		A-Grade	
	Through Port	Coupling Port	Through Port	Coupling Port
5:90:5	±2.5	±1.5	±3.0	±1.8
10:80:10	±2.8	±1.6	±3.2	±2.0
15:70:15	±3.0	±1.8	±3.5	±2.4
20:60:20	±3.3	±2.0	±3.7	±2.5
25:50:25	±3.5	±2.4	±4.0	±3.0
30:40:30	±4.0	±3.0	±5.0	±4.0
33:33:33	±6.0	±6.0	±8.0	±8.0
35:30:35	±4.0	±5.0	±5.0	±6.0
40:20:40	±5.0	±6.0	±6.0	±7.0

## Ordering Information

P	I	N	S		3						
Wavelength	4=1550nm	5=1480nm	7=1310nm	8=1064nm	R=1030nm	9=980nm	A=850nm	L=780nm	K=630nm	F=2000nm	S=Specify
Structure	3=1x3										
Splitting Ratio	90=5:90:5	80=10:80:10	70=15:70:15	60=20:60:20	50=25:50:25	40=30:40:30	33=33:33:33	30=35:30:35	20=40:20:40	...	
Grade	P=Premium A=A grade										
Package	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable										
Fiber Type	E=Panda fiber L=Large mode area panda fiber										
Fiber Length	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify										
Connector	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC										

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3 33:33:33 Fused PM Fiber Broadband Splitter



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

Specifications		Splitting Ratio: 33:33:33	
Parameter	Unit	Premium	A grade
Port Configuration		1x3	
Central Wavelength	nm	1310, 1480, 1550, 2000	
Bandwidth	nm	±30	
Excess Loss	Typ. dB	0.3	0.5
Excess Loss	Max. dB	0.6	0.8
Polarization Extinction Ratio	Min. dB	20	17
Splitting Ratio Tolerance	Max. %	±8	±10
Operating power	Max. W	2	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

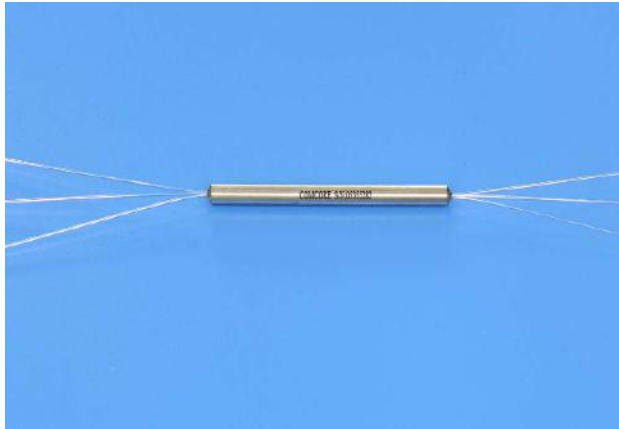
All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Ordering Information

P	M	B	S		3	3	3					
Wavelength				Structure	Splitting Ratio			Grade	Package	Fiber Type	Fiber Length	Connector
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify				3=1x3	33=33:33:33			P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UFC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 3x3 Fused PM Fiber Standard Splitter (Mixer)



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

Specifications			Splitting Ratio: 33:33:33	
Parameter	Unit		Premium	A grade
Port Configuration			3x3	
Central Wavelength	nm		1310, 1480, 1550, 2000	
Bandwidth	nm		±20	
Excess Loss	Typ.	dB	0.6	0.8
Excess Loss	Max.	dB	0.8	1.0
Polarization Extinction Ratio	Min.	dB	17	15
Splitting Ratio Tolerance	Max.	%	±10	±13
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

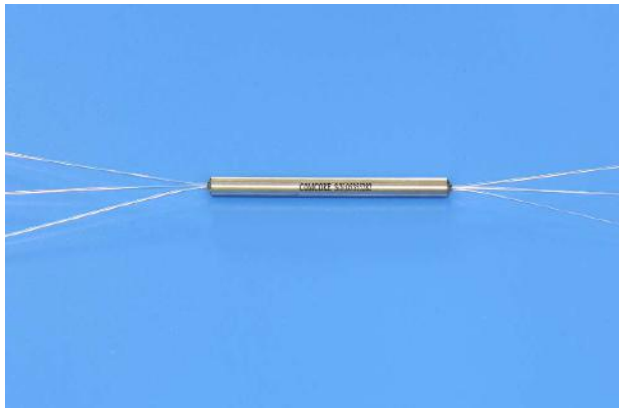
All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Ordering Information

P	M	S	S			3	3					
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Fiber Length	Connector					
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	A=3x3	33=33:33:33	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 3x3 Polarization-Insensitive Fused PM Fiber Splitter (Mixer)



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Optical Sensor
- Coherent Optical System
- Optical Testing Equipment

Specifications			Splitting Ratio: 33:33:33	
Parameter	Unit		Premium	A grade
Port Configuration			3x3	
Central Wavelength	nm		1310, 1480, 1550, 2000	
Bandwidth	nm		±20	
Excess Loss	Typ.	dB	0.7	0.9
Excess Loss	Max.	dB	0.9	1.1
Polarization Dependent Loss	Max.	dB	0.1	0.2
Polarization Extinction Ratio	Min.	dB	17	15
Splitting Ratio Tolerance	Max.	%	±10	±13
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S6=Ø3x54 / S12=Ø4x70 / M2=7.5x18x90	

Above PER is for more than 10%(CR) port, it's 2dB lower for no more than 10%(CR) port, and 4dB lower for no more than 5%(CR) port.

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Ordering Information

P	I	B	S	3	3														
Wavelength	4=1550nm	5=1480nm	7=1310nm	P=2000nm	S=Specify	Structure	A=3x3	Splitting Ratio	33=33:33:33	Grade	P=Premium A=A grade	Package	5=S6 with 250µm bare fiber pigtail B=S12 with 0.9mm loose tube E=M2 with 3mm cable	Fiber Type	E=Panda fiber	Fiber Length	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x4(2x4) & 1x8(2x8) Fused PM Fiber Splitter Module



## Product Features

- Low Excess Loss
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifier
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter		Unit	Nx4(N=1,2)						Nx8(N=1,2)					
Central Wavelength		nm	1550, 1310		980, 1064		780, 830		1550, 1310		980, 1064		780, 830	
Bandwidth		nm	± 20											
Splitting Ratio		%	25						12.5					
Splitting Ratio Tolerance		%	± 4						± 3					
Grade			P	A	P	A	P	A	P	A	P	A	P	A
Excess Loss	Max.	dB	0.8	1.0	1.0	1.2	1.2	1.4	1.0	1.2	1.2	1.4	1.4	1.6
PER	Min.	dB	18	16	16	14	16	14	16	14	14	12	14	12
Operating power	Max.	W	2											
Operating Temperature		°C	-20 to +85											
Storage Temperature		°C	-50 to +85											
Package Type		mm	M5=10x80x100						M6=18x115x141					

All specifications are before connectors. PER is 2dB lower and EL is 0.2 dB higher after connectors.

## Ordering Information

P	M	S	M								
				Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector
				4=1550nm 7=1310nm 8=1064nm 9=980nm K=830nm L=780nm S=Specify	14=1x4 24=2x4 18=1x8 28=2x8	P=Premium A=A grade	H=M5 I=M6	E=Panda Fiber L=Large mode area panda fiber	M=0.9mm loose tube L=3mm Cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 125µm Polarization-Maintaining Optical Fiber Polarizer



## Product Features

- Stable extinction ratio
- Low insertion loss
- Low back reflection
- Bi-Directional Operation
- All-Fiber Construction

## Product Applications

- Optical testing systems
- Optical fiber sensors
- Optical fiber Lasers
- Optical Sources

Specifications			Premium	A Grade	Premium	A Grade
Parameter	Unit					
Central Operating Wavelength	nm		830, 980, 1064		1310, 1480, 1550, 2000	
Bandwidth	Max	nm	+/-30	+/-20	+/-30	+/-20
Extinction ratio	Min.	dB	25	23	25	23
Insertion loss	Typ.	dB	1.0	1.2	0.4	0.7
Insertion Loss	Max	dB	1.2	1.5	0.7	1.0
Operating Temperature	°C		-40 to +85			
Storage Temperature	°C		-55 to +85			
Package Type	mm		S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90			
Fiber Type			125/250µm PM Panda fiber			

## Ordering Information

<b>P</b>	<b>M</b>	<b>F</b>	<b>P</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>P</b>	<b>S</b>	<b>0</b>		
Wavelength 4=1550nm 5=1480nm 7=1310nm 8=1064nm 9=980nm K=830nm P=2000nm S=Specify				Grade P=Premium A=A Grade			Package 5=S6 with 250µm bare fiber pigtail 7= S8 with 0.9mm loose tube D= M1 with 3mm cable		Fiber Type E=125µm Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m S=Specify	Connector 0=None 1=FC/PC 3=FC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 80µm Polarization-Maintaining Optical Fiber Polarizer



## Product Features

- Stable extinction ratio
- Low insertion loss
- Low back reflection
- Bi-Directional Operation
- All-Fiber Construction

## Product Applications

- Optical testing systems
- Optical fiber sensors
- Optical fiber Lasers
- Optical Sources

Specifications				
Parameter		Unit	Premium Grade	A Grade
Central Operating Wavelength		nm	1310, 1550, 2000	
Bandwidth	Max.	nm	+/-30	+/-20
Extinction ratio	Min.	dB	24	22
Insertion loss	Typ.	dB	0.5	0.8
Max Insertion Loss	Max.	dB	0.8	1.2
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-55 to +85	
Package Size		mm	S5=Ø3x40 / S6=Ø3x54	
Fiber Type			80/165µm Panda PM fiber	

## Ordering Information

P	M	F	P		1	0	0						
Wavelength				Grade			Package		Fiber Type		Fiber Length		Connector
4=1550nm 7=1310nm P=2000nm S=Specify				P=Premium A=A Grade			4=S5 with 80/165µm bare fiber 5=S6 with 0.9mm loose tube		F=80µm Panda fiber		0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify		0=None

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# Fiber Optic Depolarizer



## Product Features

- Low Insertion Loss
- Low DOP
- Excellent Return Loss
- Wide wavelength operating range
- All-fiber construction

## Product Applications

- Raman amplifier pump laser Systems
- EDFA pump laser
- Polarization measurement systems
- Fiber optic gyroscopes
- Optical fiber sensor systems
- ASE, SLD and ELED sources

## Specifications

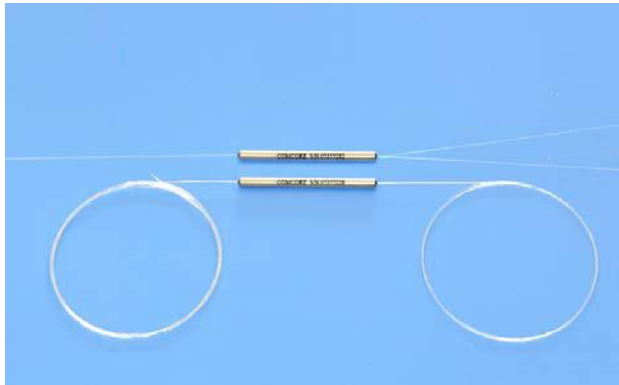
Parameter	Unit	Premium	A grade	Premium	A grade	
Central Wavelength	nm	980, 1064		1260~1625		
Insertion Loss	Max.	dB	1.6	1.8	1.5	1.6
Degree of Polarization	Max.	%	5		5	
Source line width	Min.	nm	0.1		0.1	
Input Fiber			Hi 1060/OFS-980		G652 / Panda Fiber (PM)	
Output Fiber			Hi1060/Panda Fiber (PM)		G652 / Panda Fiber (PM)	
Return loss	dB	70				
Operating Temperature	°C	-5 to +70				
Storage Temperature	°C	-50 to +85				
Package Type	mm	100x80x10				

## Ordering Information

D	P	O	L									
				Wavelength	Grade	Package	Cable Type	Fiber Type	Source Line	Fiber Length	Connector at	Connector at
				4=1550nm 5=1480nm 7=1310nm 8=1064nm 9=980nm S=Specify	P=Premium A=A grade	H=M5	S=250µm bare fiber M=0.9mm loose tube L=3mm cable	E=Panda fiber L=Large area panda fiber	Width 1=>5mm 2=2.5-5mm 3=1-2.5mm 4=0.4-1mm 5=0.2-0.4mm 6=0.1-0.2mm	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Port 1 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC	Port 1 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2 980/1064nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

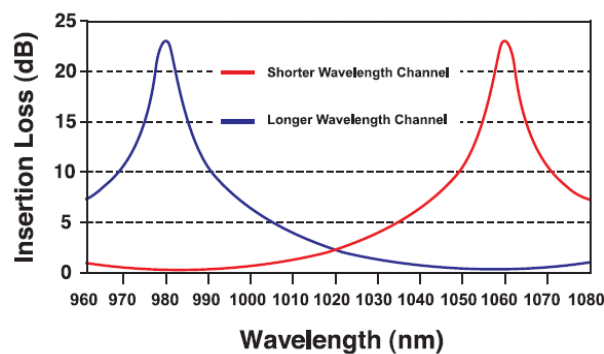
## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1064nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±5	
Insertion Loss	Max. dB		0.5	0.7
Polarization Extinction Ratio	Min. dB		17	15
Isolation@ 1064±5nm	Min. dB		13	11
Signal Channel	nm		1064±5	
Insertion Loss	Max. dB		0.5	0.7
Polarization Extinction Ratio	Min. dB		17	15
Isolation@ 980±5nm	Min. dB		13	11
Operating power	Max. W		2	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Typical Spectrum

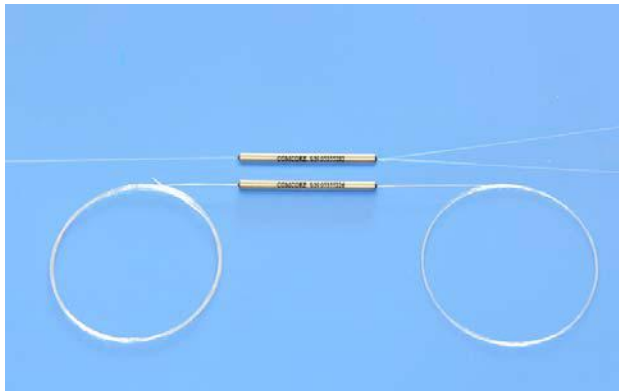


## Ordering Information

P	M	S	W			O	O					
Wavelength C=980/1064nm S=Specify	Structure 1=1x2	Grade P=Premium A=A grade	Package 8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	Fiber Type E=Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/APC 3=FC/APC 7=FC/UPC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 980/1310nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1310nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±10	
Insertion Loss	Max.	dB	0.5	0.6
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1310±10nm	Min.	dB	17	15
Signal Channel	nm		1310±10	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 980±10nm	Min.	dB	17	15
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S7=Ø3x60 / S9=Ø3x76 / M1=9x16x90	

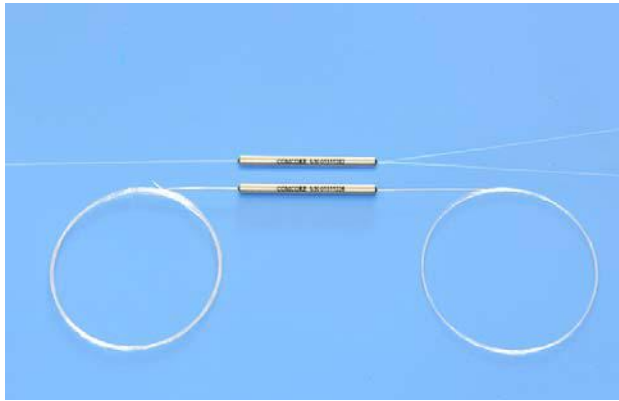
All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Ordering Information

P	M	S	W			O	O					
				Wavelength 4=980/1310nm S=Specify	Structure 1=1x2			Grade P=Premium A=A grade	Package 6=S7 with 250µm bare fiber pigtail 8=S9 with 0.9mm loose tube D=M1 with 3mm cable	Fiber Type E=Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 980/1550nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

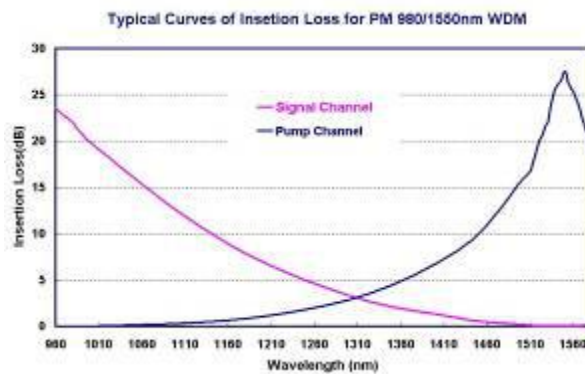
## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1550nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±10	
Insertion Loss	Max.	dB	0.5	0.6
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1528 to 1565nm	Min.	dB	18	17
Signal Channel	nm		1528 to 1565	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 980±10nm	Min.	dB	18	17
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Typical Spectrum

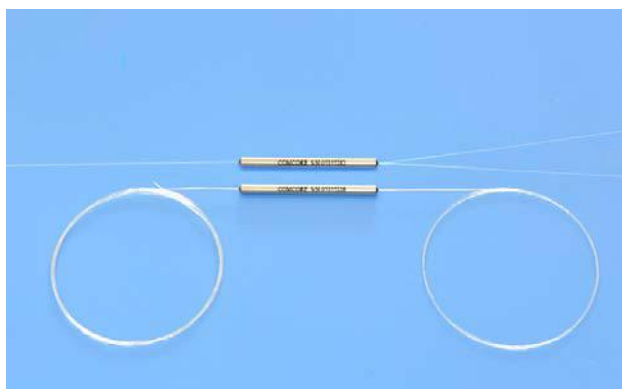


## Ordering Information

P	M	S	W			O	O					
Wavelength 1=980/1550nm S=Specify	Structure 1=1x2	Grade P=Premium A=A grade	Package 5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	Fiber Type E=Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 1064/1550nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			1064/1550nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		1064±10	
Insertion Loss	Max.	dB	0.5	0.6
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1530 to 1565nm	Min.	dB	18	17
Signal Channel	nm		1530 to 1565	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1064±10nm	Min.	dB	18	17
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S7=Ø3x60 / S9=Ø3x76 / M1=9x16x90	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

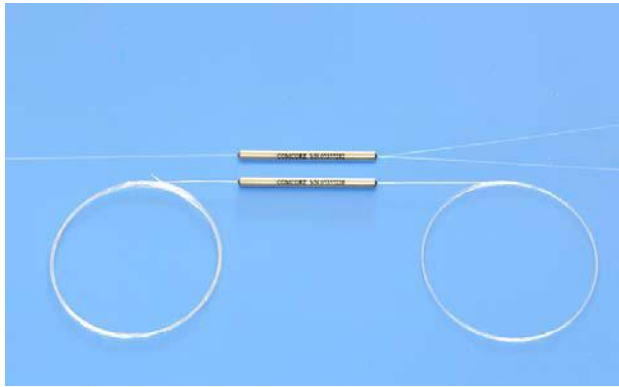
## Ordering Information

P	M	S	W			0	0					
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector		
				E=1064/1550nm S=Specify	1=1x2	P=Premium A=A grade	6=S7 with 250µm bare fiber pigtail 8=S9 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x2 1310/1550nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

## Product Applications

- Instrument
- Coherent Communication System
- Testing System

Specifications			1310nm/1550nm	
Parameter	Unit		Premium	A grade
1310nm Channel		nm	1310±10	
Insertion Loss	Max.	dB	0.3	0.5
Polarization Extinction ratio	Min.	dB	18	16
Isolation@ 1550±10nm	Min.	dB	16	14
1550nm Channel		nm	1550±10	
Insertion Loss	Max.	dB	0.3	0.5
Polarization Extinction ratio	Min.	dB	18	16
Isolation@ 1310±10nm	Min.	dB	16	14
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

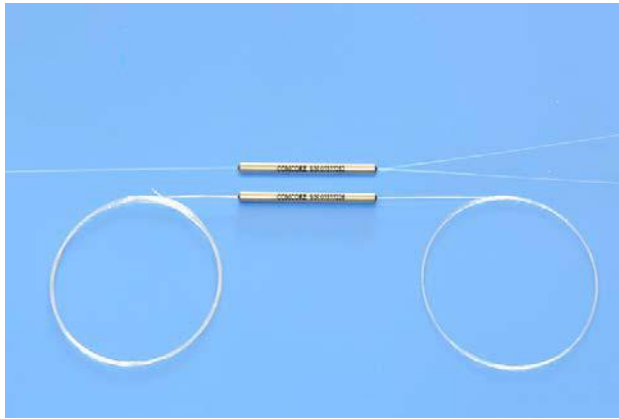
All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Ordering Information

P	M	S	W			O	O								
Wavelength S=1310/1550nm S=Specify				Structure 1=1x2		Grade P=Premium A=A grade		Package S=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable		Fiber Type E=Panda fiber		Fiber Length 0=0.5m 1=0.75m 2=1.0m S=Specify		Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC	

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) 1480/1550nm Fused PM Fiber Standard WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

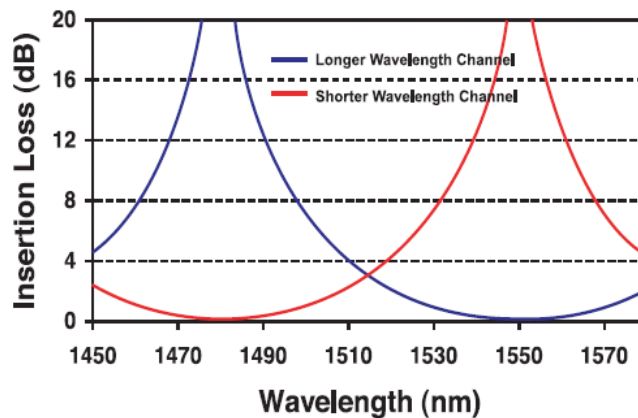
## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers
- Optical fiber communication

Specifications			1480/1550nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		1480±5	
Insertion Loss	Max. dB		0.5	0.7
Polarization Extinction Ratio	Min. dB		17	15
Isolation@ 1550±5nm	Min. dB		13	11
Signal Channel	nm		1550±5	
Insertion Loss	Max. dB		0.5	0.7
Polarization Extinction Ratio	Min. dB		17	15
Isolation@ 1480±5nm	Min. dB		13	11
Operating power	Max. W		2	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Typical Spectrum

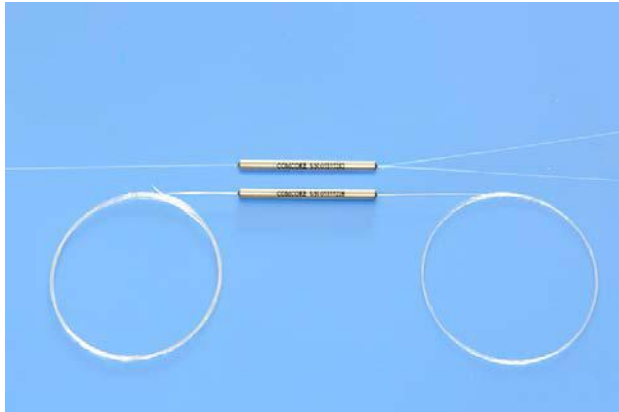


## Ordering Information

P	M	S	W			O	O					
Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector						
7=1480/1550nm 8=1480/1590nm S=Specify	1=1x2 2=2x2	P=Premium A=A grade	8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) 532/635nm (450/532nm) Fused PM Fiber WDM



## Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Available for Slow or Fast Axis Operation
- Telcordia GR-1221 Compliant Test

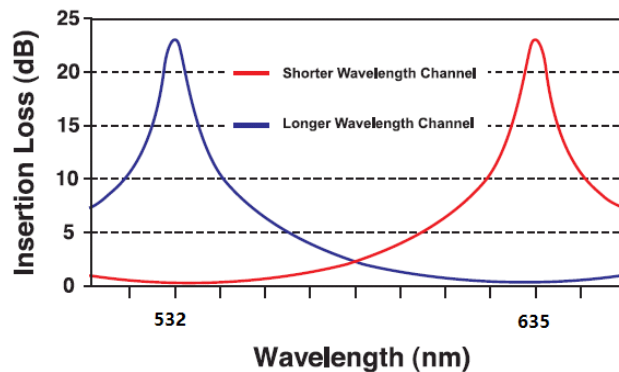
## Product Applications

- Virtual Reality(VR) and AR
- Medical Instrument
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			532/635nm		450/532nm	
Parameter	Unit		Premium	A grade	Premium	A grade
Pump Channel		nm	532±5		450±5	
Insertion Loss	Max.	dB	1.4	1.5	1.4	1.5
Polarization Extinction Ratio	Min.	dB	17	15	17	15
Isolation@ 635±5nm	Min.	dB	12	11	12	11
Signal Channel		nm	635±5		532±5	
Insertion Loss	Max.	dB	1.4	1.5	1.4	1.5
Polarization Extinction Ratio	Min.	dB	17	15	17	15
Isolation@ 532±5nm	Min.	dB	12	11	12	11
Operating power	Max.	W	2			
Operating Temperature	°C		-40 to +85			
Storage Temperature	°C		-50 to +85			
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85			

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Typical Spectrum

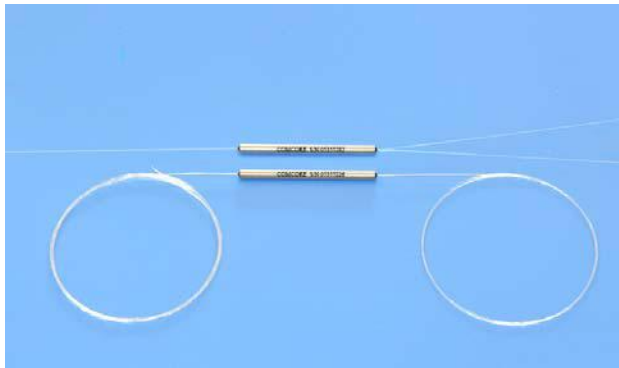


## Ordering Information

P	M	S	W			O	O						
Wavelength F=532/635nm A=450/532nm				Structure 1=1x2 2=2x2		Grade P=Premium A=A grade		Package 6=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable		Fiber Type E=Panda fiber		Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/APC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1030nm Hybrid PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1030nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±5	
Insertion Loss	Max.	dB	0.6	0.8
Isolation@ 1030±5nm	Min.	dB	13	11
Signal Channel	nm		1030±5	
Insertion Loss	Max.	dB	0.6	0.8
Isolation@ 980±5nm	Min.	dB	13	11
PER for 980nm or 1030nm Channel	Min.	dB	17	15
PDL for 980nm or 1030nm Channel	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

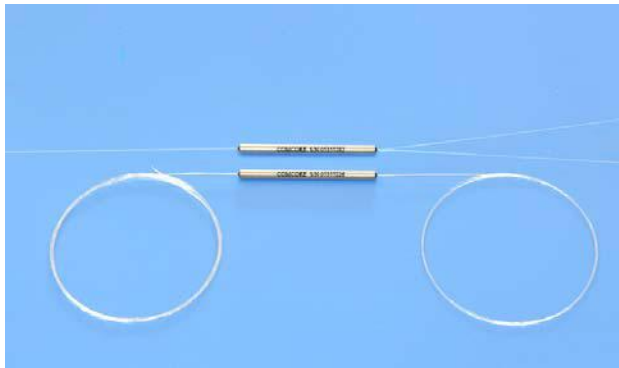
Fiber Type	Common Port	980nm Port	1030nm Port
Type 1	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	I	S	W							
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector
				I=980/1030nm S=Specify	1=1x2	P=Premium A=A grade	8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	1=Type 1 2=Type 2	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1030nm Fused PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1030nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±5	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction Ratio	Min.	dB	17	15
Isolation@ 1030±5nm	Min.	dB	13	11
Polarization Dependent Loss	Max.	dB	0.1	0.2
Signal Channel	nm		1030±5	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction Ratio	Min.	dB	17	15
Isolation@ 980±5nm	Min.	dB	13	11
Polarization Dependent Loss	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

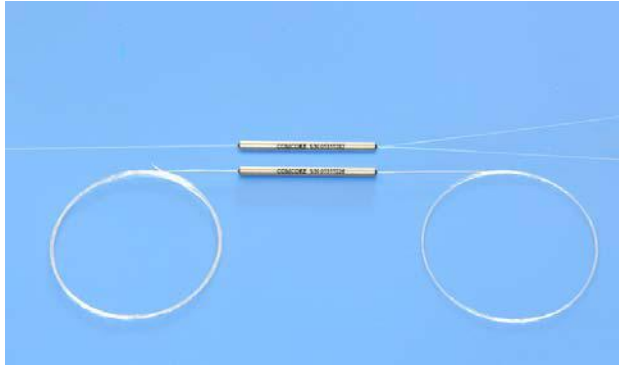
All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Ordering Information

P	I	S	W			O	O								
Wavelength I=980/1030nm S=Specify				Structure 1=1x2		Grade P=Premium A=A grade		Package 8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable		Fiber Type E=Panda fiber		Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify		Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC	

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1064nm Hybrid PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Excess Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1064nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±5	
Insertion Loss	Max.	dB	0.6	0.8
Isolation@ 1064±5nm	Min.	dB	13	11
Signal Channel	nm		1064±5	
Insertion Loss	Max.	dB	0.6	0.8
Isolation@ 980±5nm	Min.	dB	13	11
PER for 980nm or 1064nm Channel	Min.	dB	17	15
PDL for 980nm or 1064nm Channel	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

Fiber Type	Common Port	980nm Port	1064nm Port
Type 1	Panda Fiber	Panda Fiber	HI1060 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber

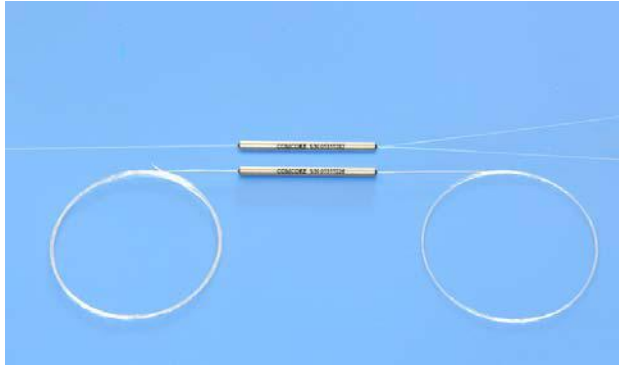
## Ordering Information

P	I	S	W			0	1					
				Wavelength C=980/1064nm S=Specify	Structure 1=1x2			Grade P=Premium A=A grade	Package 8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	Fiber Type 1=Type 1 2=Type 2	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 1x2 Polarization-Insensitive 980/1064nm Fused PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

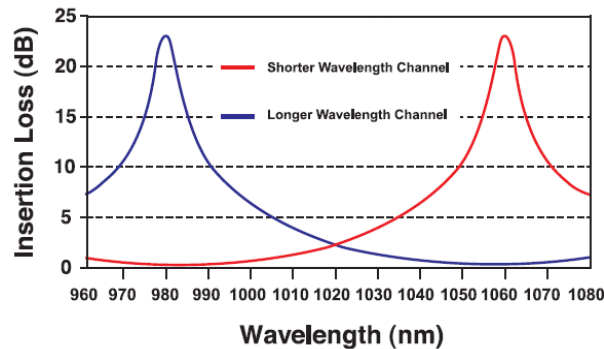
## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1064nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±5	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction Ratio	Min.	dB	17	15
Isolation@ 1064±5nm	Min.	dB	13	11
Polarization Dependent Loss	Max.	dB	0.1	0.2
Signal Channel	nm		1064±5	
Insertion Loss	Max.	dB	0.7	0.9
Polarization Extinction Ratio	Min.	dB	17	15
Isolation@ 980±5nm	Min.	dB	13	11
Polarization Dependent Loss	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm		S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Typical Spectrum

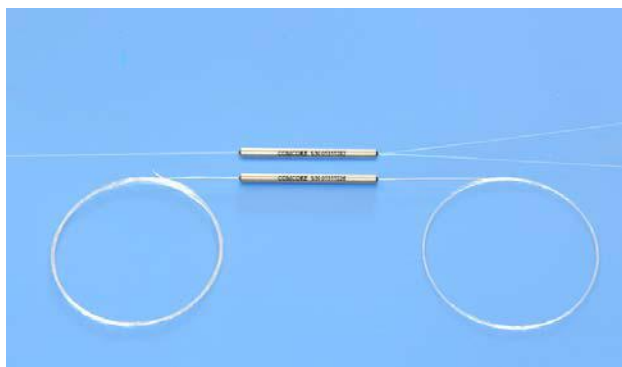


## Ordering Information

P	I	S	W							
Wavelength C=980/1064nm S=Specify	Structure 1=1x2	Grade P=Premium A=A grade	Package 8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	Fiber Type E=Panda fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1310nm Hybrid PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1310nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±10	
Insertion Loss	Max.	dB	0.5	0.6
Isolation@ 1310±10nm	Min.	dB	17	15
Signal Channel	nm		1310±10	
Insertion Loss	Max.	dB	0.7	0.9
Isolation@ 980±10nm	Min.	dB	17	15
PER for 980nm or 1310nm Channel	Min.	dB	20	17
PDL for 980nm or 1310nm Channel	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S7=Ø3x60 / S9=Ø3x76 / M1=9x16x90	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

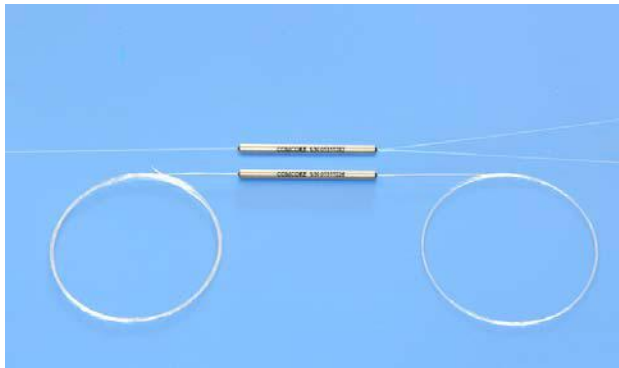
Fiber Type	Common Port	980nm Port	1310nm Port
Type 1	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	I	S	W							
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector
				4=980/1310nm S=Specify	1=1x2	P=Premium A=A grade	6=S7 with 250µm bare fiber pigtail 8=S9 with 0.9mm loose tube D=M1 with 3mm cable	1=Type 1 2=Type 2	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1310nm Fused PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1310nm	
Parameter	Unit		Premium	A grade
Pump Channel		nm	980±10	
Insertion Loss	Max.	dB	0.6	0.7
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1310±10nm	Min.	dB	17	15
Polarization Dependent Loss	Max.	dB	0.1	0.2
Signal Channel		nm	1310±10	
Insertion Loss	Max.	dB	0.8	1.0
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 980±10nm	Min.	dB	17	15
Polarization Dependent Loss	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S7=Ø3x60 / S9=Ø3x76 / M1=9x16x90	

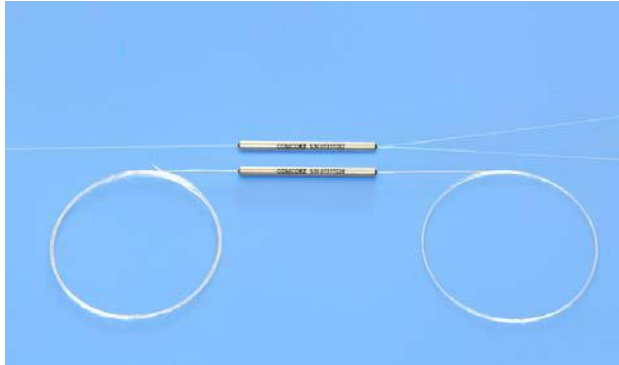
All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Ordering Information

P	I	S	W			O	O					
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector		
				4=980/1310nm S=Specify	1=1x2	P=Premium A=A grade	6=S7 with 250µm bare fiber pigtail 8=S9 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1550nm Hybrid PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1550nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±10	
Insertion Loss	Max.	dB	0.5	0.6
Isolation@ 1528 to 1565nm	Min.	dB	18	17
Signal Channel	nm		1528 to 1565	
Insertion Loss	Max.	dB	0.7	0.9
Isolation@ 980±10nm	Min.	dB	18	17
PER for 980nm or 1550nm Channel	Min.	dB	20	17
PDL for 980nm or 1550nm Channel	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

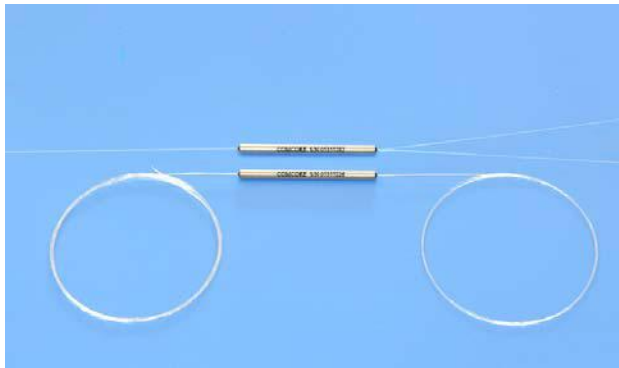
Fiber Type	Common Port	980nm Port	1550nm Port
Type 1	Panda Fiber	Panda Fiber	G652 Fiber or Equivalent Fiber
Type 2	Panda Fiber	HI1060 Fiber or Equivalent Fiber	Panda Fiber

## Ordering Information

P	I	S	W							
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector
				1=980/1550nm S=Specify	1=1x2	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	1=Type 1 2=Type 2	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2 Polarization-Insensitive 980/1550nm Fused PM Fiber WDM



## Product Features

- Operating on both Fast and Slow Axis
- Low Insertion Loss
- Polarization-Insensitive
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- PM Fiber EDFAs
- Monitoring in Coherent Systems
- Fiber Lasers

Specifications			980/1550nm	
Parameter	Unit		Premium	A grade
Pump Channel	nm		980±10	
Insertion Loss	Max.	dB	0.6	0.7
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 1528 to 1565nm	Min.	dB	18	17
Polarization Dependent Loss	Max.	dB	0.1	0.2
Signal Channel	nm		1528 to 1565	
Insertion Loss	Max.	dB	0.8	1.0
Polarization Extinction ratio	Min.	dB	20	17
Isolation@ 980±10nm	Min.	dB	18	17
Polarization Dependent Loss	Max.	dB	0.1	0.2
Operating power	Max.	W	2	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90	

All specifications are before connectors. PER is 2dB lower and IL is 0.2dB higher after connectors.

## Ordering Information

P	I	S	W			O	O					
				Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector		
				1=980/1550nm S=Specify	1=1x2	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# Fused PM Fiber Attenuator



## Product Features

- Low Excess Loss
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Amplifiers
- Power Monitoring
- Coherent Communication
- Fiber Gyroscope

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade	
Port Configuration		1x1				
Central Wavelength	nm	780, 830, 850, 980, 1030, 1064		1310, 1480, 1550, 2000		
Bandwidth	nm	±20				
Excess Loss	Typ.	dB	0.5	0.6	0.4	0.6
Excess Loss	Max.	dB	0.7	0.8	0.6	0.8
Polarization Extinction Ratio	Min.	dB	18	16	20	17
Operating power	Max.	W	2			
Operating Temperature	°C	-40 to +85				
Storage Temperature	°C	-50 to +85				
Package Type	mm	S6=Ø3x54 / S8=Ø3x70 / M1=9x16x90				

All specifications are before connectors. PER is 2dB lower and EL is 0.2dB higher after connectors.

## Insertion Loss & Its Tolerance

Insertion Loss(dB)	Insertion Loss Tolerance (dB)		PER for 780~1064nm (dB)		PER for 1310~2000nm (dB)	
	Premium	A grade	Premium	A grade	Premium	A grade
1	±0.1	±0.2	18	16	20	17
2	±0.2	±0.3	18	16	20	17
3	±0.3	±0.4	18	16	20	17
5	±0.7	±0.8	18	16	20	17
10	±1.0	±1.2	18	16	20	17
15	±1.8	±2.2	16	14	18	15
20	±2.5	±3.0	0	0	0	0
30	±3.0	±4.0	0	0	0	0

## Ordering Information

P	M	F	O	A							
					Wavelength	Insertion Loss	Grade	Package	Fiber Type	Fiber Length	Connector
					4=1550nm 5=1480nm 7=1310nm 8=1064nm R=1030nm A=850nm K=830nm L=780nm P=2000nm S=Specify	01=1.0dB 02=2.0dB 03=3.0dB 05=5.0dB 10=10dB 15=15dB 20=20dB 30=30dB	P=Premium A=A grade	5=S6 with 250µm bare fiber pigtail 7=S8 with 0.9mm loose tube D=M1 with 3mm cable	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

## 2x1 Fused PM Fiber Standard Combiner



### Product Features

- Low Excess Loss
- High Extinction Ratio
- High Power Handling
- Telcordia GR-1221 Compliant Test

### Product Applications

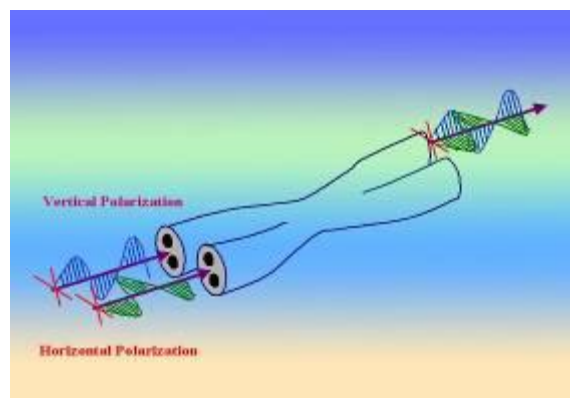
- Pump Combining for EDFA
- High Power Source
- Polarization-independent Source

### Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		2x1			
Central Wavelength	nm	780, 830, 980, 1064		1310, 1480, 1550, 2000	
Bandwidth	nm	±10			
Insertion Loss in Slow Axis Channel	Max. dB	1.0	1.2	0.4	0.6
Insertion Loss in Fast Axis Channel	Max. dB	1.4	1.6	0.8	1.1
Insertion Loss in Fast Axis Channel	Typ. dB	1.0	1.2	0.5	0.7
Power Handling	Min. mw	1000			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S9=Ø3x76 / S10=Ø3x92 / M3=7.5x18x85			

All specifications are before connectors. IL is 0.2dB higher after connectors.

### Typical Spectrum



### Ordering Information

P	M	S	C			O	O					
Wavelength	Structure	Grade	Package	Fiber Type	Fiber Length	Connector						
4=1550nm 5=1480nm 7=1310nm 8=1064nm 9=980nm L=780nm K=630nm P=2000nm S=Specify	Y=2x1	P=Premium A=A grade	8=S9 with 250µm bare fiber pigtail 9=S10 with 0.9mm loose tube F=M3 with 3mm cable	E=Panda fiber L=Large mode area panda fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# PM Fiber Patch Cords



## Product Features

- Low Insertion Loss
- High Extinction Ratio
- High Power Handling
- Excellent Return Loss
- Telecordia GR-326 Compliant

## Product Applications

- Power Jumps
- Testing Systems
- PM Fiber Sense Systems
- Optical PM Modules

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Central Wavelength	nm	780, 830, 980, 1064		1310, 1480, 1550, 2000	
Insertion Loss	Max. dB	0.60	0.80	0.25	0.30
Polarization Extinction Ratio	Min. dB	25	22	25	22
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			

PORT1

PORT2



## Ordering Information

P	F	P	C										
Wavelength	Grade	Cable Type	Fiber Type	Cable Length	Align at Port1	Align at Port2	Connector at Port 1	Connector at port 2					
4=1550nm 5=1480nm 7=1310nm 8=1064nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	P=Premium A=A grade	S=250µm bare fiber M=0.9mm loose tube L=3mm cable	E=250µm Panda fiber L=Large mode area panda fiber	1=1.0m 2=2.0m 3=3.0m 4=4.0m 5=5.0m S=Specify	S=Slow Axis F=Fast Axis	S=Slow Axis F=Fast Axis	1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC	0= None 1=FC/PC 2=FC/SPC 3=FC/APC 7=FC/UPC					

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# **Spun Fiber Products**



# SPUN-R Fiber



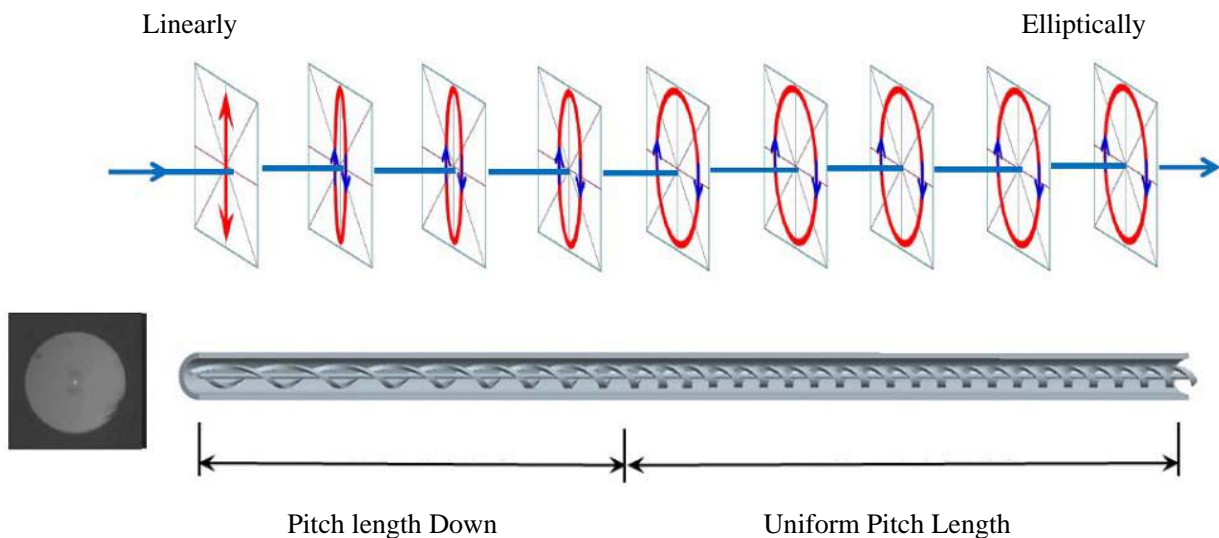
## Product Features

- Low Insertion Loss
- Temperature Insensitive
- Precise Spinning Pitch
- High Current Sensitivity
- No Required for Quarter Wave Plate

## Product Applications

- Current Sensors
- Lightning Sensor
- Polarization Controller
- Polarization transformers

The controllably-spun birefringent-fiber or all fiber polarization transformer consists essentially of a long spun high-birefringence fiber, fabricated by slowly varying the spin rate of a birefringent fiber preform from very slow to very fast while the fiber is being drawn. The evolution of the eigenstate from a linear polarization state to an elliptical polarization state, induced by slow variation of the intrinsic structure from linear anisotropy at the unspun to elliptical anisotropy at the fast-spun of the other end, enables power coupling between local eigenstates, and relative power in these local eigenstates as a function of distance along the length of the fiber, the extinction ratio of the output state of polarization (SOP) as a function of distance and the normalized spin rate.



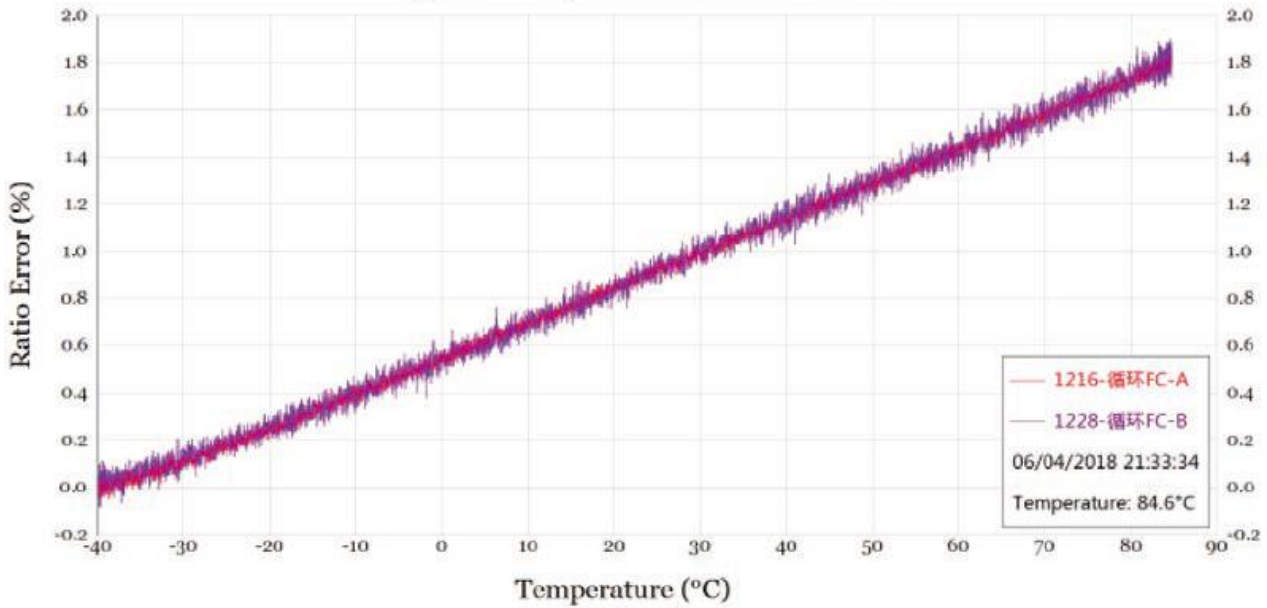
## Specifications

Parameter	Unit	Performance
Operating Wavelength	nm	1310, 1480, 1550
Bandwidth	nm	±30nm
Pitch Length for Both of ends	mm	∞
Minimum Pitch Length	mm	3.2
Insertion Loss	Max. dB/meter	0.1
Insertion Loss	Typ. dB/meter	0.06
Modal Field Diameter	Typ. μm	9.0±0.5
Bending Radii	Min. mm	75
Operating Temperature	°C	-40 to +85

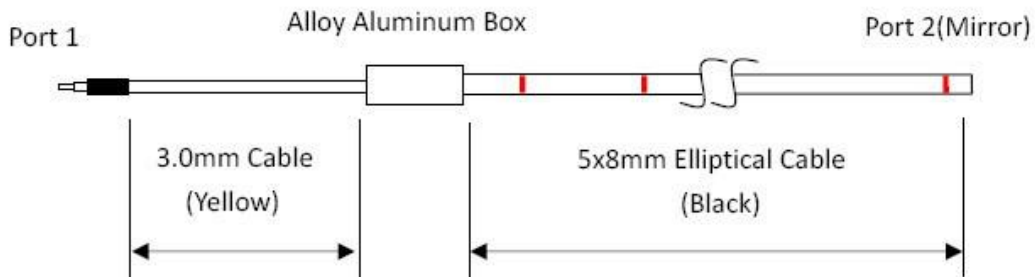
Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.

## Temperature Characteristics

Typical Temperature Characteristics



## Diagram



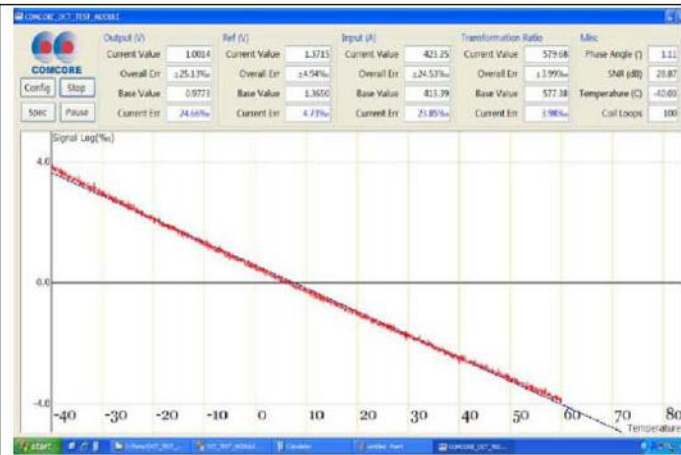
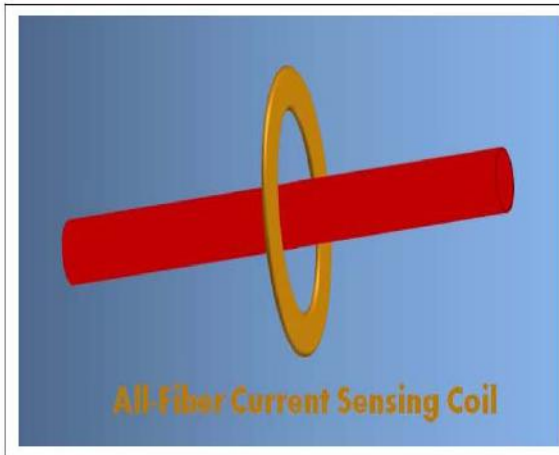
## Ordering Information

S	P	U	N	R		1	0					4
					Wavelength			Fiber Type	Jacket Type	Fiber Length	Connector at Port1	Connector at Port2
					4=1550nm			P= Panda Fiber	M=0.9mm	0= 0.5 m	0=None	4=Mirror
					5=1480nm			E= E-core Fiber	loose tube	1= 1.0 m	1=FC/PC	
					7=1310nm				L=3mm cable	2= 2.0 m	2=FC/UPC	
					S=Specify					3= 3.0 m	3=FC/APC	
										9= 9.0 m		
										10= 10.0 m		

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.



## All-Fiber Current Sensing Coils



### Product Features

- Low Insertion Loss
- Temperature Insensitive
- Precise Spinning Pitch
- No Requirement for Quarter Wave Plates
- High Current Sensitivity
- High Long-Term Stability
- Polarization Stable
- Vibration and Shock Stable

### Basic Optical Specifications

Parameters		Performance
Operating Wavelength	nm	1310, 1550
Bandwidth	nm	±30
Temperature Coefficient for Transmissive Model	%/°C	±0.002
Temperature Coefficient for Reflective Model	%/°C	±0.004
Linearity deviation for Temperature Coefficient	Type	%
Insertion Loss	Typ.	dB
Insertion Loss	Max.	dB
Modal Field Diameter	Typ.	µm
Operating Temperature	°C	-40 to +85

	Voltage Grade	A (mm)	B (mm)	C (mm)
	1 For 110kV	170	250	25
	2 For 220kV	280	360	25
	3 For 500kV	560	640	25
	4 For 750kV	800	900	30
	5 For 1000kV	1200	1300	30

### Ordering Information

C	O	I	L			1	O	E			O
Voltage Grade	Sensing Model	Wavelength		Fiber Type	Pigtail Type	Pigtail Length	Connector				
1=110kV 2=220kV 3=500kV 4=750kV 5=1000kV	T=Transmissive R=Reflective	4=1550nm 5=1480nm 7=1310nm		E= Panda	M=0.9mm loose tube L=3mm cable	1= 1.0 m 2= 2.0 m 3= 3.0 m	0= None				

Note: 1. Central Wavelength can be customized for different applications.  
2. A, B, C can be customized.

The background of the image features a dark, almost black, space filled with vibrant, ethereal light trails. These trails are primarily in shades of blue and green, with some white highlights. They form a complex, swirling pattern that resembles a galaxy or a nebula, with multiple concentric, elongated loops and a bright, glowing core in the center. The overall effect is one of dynamic energy and futuristic technology.

**Comcore's Ultra-High Reliability Fused  
Fiber Products Are Ready For Your Most  
Demanding Applications**

# 1x2(2x2) Single Mode C/L Band Broadband Tap



## Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

## Product Applications

- Submarine Cable System
- Submarine Optical Amplifier
- Optical Communication System
- EDFA Module

## Specifications

Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	C Band (1528-1565) or L Band (1570-1605)	
Excess Loss	Typ. dB	0.07	0.1
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber

## Ultra-High Reliability Test

## Results

High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss(dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0

## Ordering Information

H	R	B	S							
Wavelength C=C Band L=L Band	Structure 1=1x2 2=2x2	Splitting Ratio 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5	Grade P=Premium A=A grade	Package 5=S6	Fiber Type 1=G652 or Equivalent	Pigtail S=250µm bare fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.



# 1x2 (2x2) Ultra-High Reliability Single Mode Narrowband Splitter



## Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

## Product Applications

- Submarine Cable System
- Submarine Optical Amplifier
- Optical Communication System
- EDFA Module

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±10	
Insertion Loss	Max. dB	3.4	3.6
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.05	0.1
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber

Ultra-High Reliability Test	Results
High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss(dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

H	R	N	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length
				1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 50=50:50	P=Premium A=A grade	5=S6	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 A=SM1950 A=Large mode area fiber	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

## 2x2 50/50 Single Mode Narrowband Splitter



### Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

### Product Applications

- Submarine Cable System
- Submarine Optical Amplifier
- Optical Communication System
- EDFA Module

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	A grade
Port Configuration			2x2	
Bandwidth	nm		±10	
Insertion Loss	Max.	dB	3.4	3.6
Excess Loss	Typ.	dB	0.07	0.1
PDL	Max.	dB	0.05	0.1
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber	

Ultra-High Reliability Test	Results
High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

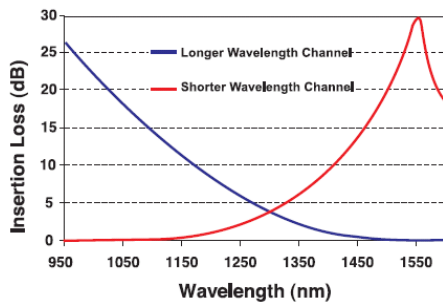
### Ordering Information

H	R	N	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length
				6=1475nm 9=980nm	2=2x2	50=50:50	P=Premium A=A grade	5=S6	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 A=Large mode area fiber	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 980/1550nm(980/1590nm) Single Mode Fiber WDM

980/1550nm WDM Typical Spectrum



## Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

## Product Applications

- Submarine Optical Amplifier
- Submarine Optical Module
- Terrestrial Optical Amplifier

Specifications			980/1550nm		980/1590nm	
Parameter	Unit		Premium	A grade	Premium	A grade
Shorter Wavelength Channel		nm	960 to 990		960 to 990	
Insertion Loss	Max.	dB	0.3	0.4	0.3	0.4
PDL	Max.	dB	0.05	0.05	0.05	0.05
Isolation @C band or L band	Min.	dB	20	18	20	18
Longer Wavelength Channel		nm	C Band (1528 to 1565)		L Band (1570 to 1605)	
Insertion Loss	Max.	dB	0.3	0.4	0.3	0.4
PDL	Max.	dB	0.05	0.05	0.05	0.05
Isolation @960 to 990nm	Max.	dB	20	18	20	18
Operating power	Max.	W	5			
Operating Temperature		°C	-40 to +85			
Storage Temperature		°C	-50 to +85			
Package Type		mm	S6	Ø3x54: for bare fiber		

Ultra-High Reliability Test	Results
High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

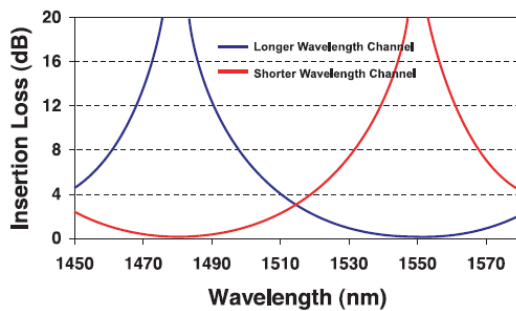
## Ordering Information

H	W	D	M								
Wavelength		Structure		Grade		Package		Fiber Type		Pigtail	Fiber Length
1=980/1550nm 2=980/1590nm		1=1x2 2=2x2		P=Premium A=A grade		5=S6		5=980-20 7=HI1060 FLEX 8=980-16		S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.

# 1480/1550nm(1475/1558nm) Single Mode Fiber WDM

1480/1550nm WDM Typical Spectrum



## Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

## Product Applications

- Submarine Optical Amplifier
- Submarine Optical Module
- Terrestrial Optical Amplifier

Specifications			1480/1550nm		1475/1558nm	
Parameter	Unit		Premium	A grade	Premium	A grade
Shorter Wavelength Channel	nm		1480±5		1475±5	
Insertion Loss	Max.	dB	0.3	0.4	0.3	0.4
PDL	Max.	dB	0.1	0.15	0.1	0.15
Isolation @ 1550 or 1558±5nm	Min.	dB	15	13	15	13
Longer Wavelength Channel	nm		1550±5		1558±5	
Insertion Loss	Max.	dB	0.3	0.4	0.3	0.4
PDL	Max.	dB	0.1	0.15	0.1	0.15
Isolation @ 1480 or 1475±5nm	Max.	dB	15	13	15	13
Operating power	Max.	W	5			
Operating Temperature	°C		-40 to +85			
Storage Temperature	°C		-50 to +85			
Package Type	mm	S9	Ø3x76: for bare fiber			

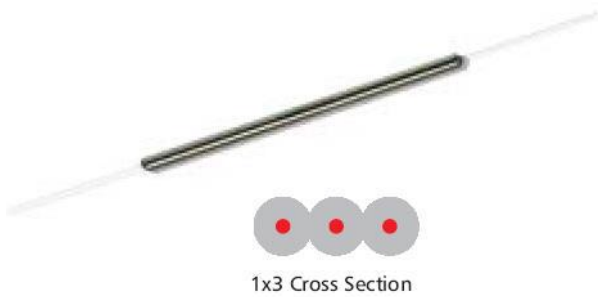
Ultra-High Reliability Test	Results
High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

## Ordering Information

H	W	D	M			O	O					
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length						
7=1480/1550nm 9=1475/1558nm	1=1x2 2=2x2	P=Premium A=A grade	8=S9	1=G652 or Equivalent	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.

# 1x3 Single Mode Narrowband Splitter



## Product Features

- Moisture-Resistant
- Impact-Resistant
- Vibration-Resistant
- Compact Size

## Product Applications

- Submarine Cable System
- Submarine Optical Amplifier
- Optical Communication System
- Terrestrial Backbone System
- Space Craft Sensing System

Specifications			Splitting Ratio: 33:33:33	
Parameter	Unit		Premium	A grade
Port Configuration			1x3	
Bandwidth	nm		±10	
Insertion Loss	Max.	dB	5.4	5.7
Excess Loss	Typ.	dB	0.15	0.2
Uniformity	Max.	dB	0.8	1.2
PDL	Max.	dB	0.05	0.1
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	Ø3.5x54: for bare fiber	

Ultra-High Reliability Test	Results
High Temperature Storage (85°C)	6,000 hours
Temperature Cycling (-40°C to 85°C)	1,000 cycles
Damp Heat Test (85°C /85%RH)	5,000 hours
Low Temperature Storage (-40°C)	6,000 hours
Impact Test (500g, 1ms)	8 times/each axes (3 axes)
Vibration Test (20 to 2,000 Hz/20g)	20 minutes/12 times (3 axes)

## Ordering Information

H	R	N	S								
				Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length
				4=1550nm 5=1480nm 7=1310nm S=Specify	3=1x3	33=33:33:33	P=Premium A=A grade	5= Ø 3.5x54mm	1=G652 or Equivalent	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

**Comcore's Single Mode Fiber  
WDMs Are Your Ultimate Choice**





# 980/1035nm Single Mode Fiber WDM



## Product Features

- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications			980/1035nm	
Parameter	Unit		Premium	A grade
Shorter Wavelength Channel	nm		980±3	
Insertion Loss	Max.	dB	0.4	0.6
PDL	Max.	dB	0.1	0.15
Isolation @ 1035±3 nm	Min.	dB	12	10
Longer Wavelength Channel	nm		1035±3	
Insertion Loss	Max.	dB	0.4	0.6
PDL	Max.	dB	0.1	0.15
Isolation @ 980±3 nm	Min.	dB	12	10
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S9	Ø3x76: for bare fiber	
		S10	Ø3x92: for 0.9mm loose tube	
		M3	7.5x18x85: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
0=980/1035nm	1=1x2 2=2x2	P=Premium A=A grade	8=S9 9=S10 F=M3	5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 980/1064nm Single Mode Fiber WDM



## Product Features

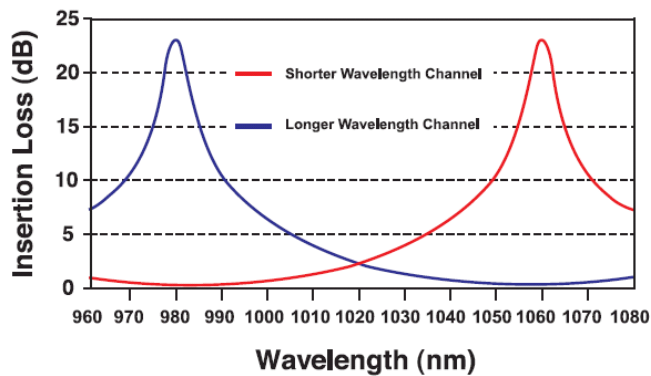
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		980/1064nm	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	980±5	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1064±5 nm	Min. dB	15	13
Longer Wavelength Channel	nm	1064±5	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 980±5 nm	Min. dB	15	13
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S9	Ø3x76: for bare fiber
		S10	Ø3x92: for 0.9mm loose tube
		M3	7.5x18x85: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength C=980/1064nm	Structure 1=1x2 2=2x2	Grade P=Premium A=A grade	Package 8=S9 9=S10 F=M3	Fiber Type 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 980/1310nm Single Mode Fiber WDM



## Product Features

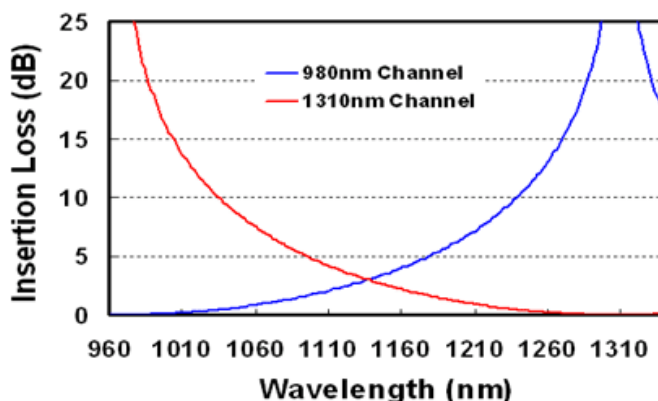
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier

Specifications		980/1310nm	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	980±10	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1310±15 nm	Min. dB	18	18
Longer Wavelength Channel	nm	1310±15	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 980±10 nm	Min. dB	18	16
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
4=980/1310nm	1=1x2 2=2x2	P=Premium A=A grade	5=S6 7=S8 D=M1	5=980-20 7=H11060 FLEX 8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 980nm/C or L Band Compact WDM



## Product Features

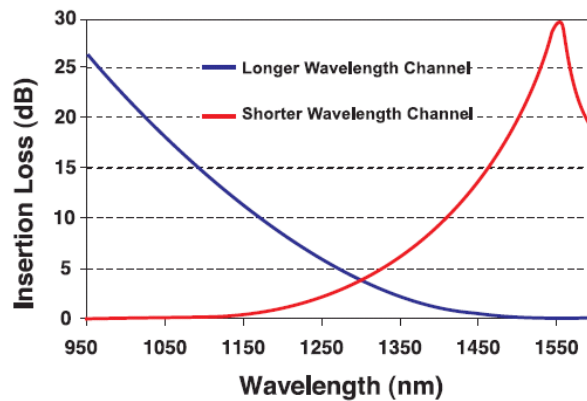
- Very Compact Size
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications			980nm/C or L Band	
Parameter		Unit	Premium	A grade
Shorter Wavelength Channel		nm	960 to 990	
Insertion Loss	Max.	dB	0.3	0.4
PDL	Max.	dB	0.05	0.05
Isolation @ C or L band	Min.	dB	20	18
Longer Wavelength Channel		nm	C Band (1528 to 1565) or L Band (1570 to 1605)	
Insertion Loss	Max.	dB	0.3	0.4
PDL	Max.	dB	0.05	0.05
Isolation @ 960 to 990 nm	Min.	dB	20	18
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S4	Ø3x35: for bare fiber
			S6	Ø3x54: for 0.9mm loose tube

## 980nm/C Band WDM Typical Spectrum



## Ordering Information



Wavelength  
1=980nm/  
C Band  
2=980nm/  
L Band

Structure  
1=1x2  
2=2x2

Grade  
P=Premium  
A=A grade

Package  
3=S4  
5=S6

Fiber Type  
5=980-20  
7=H11060 FLEX  
8=980-16

Pigtail  
S=250µm  
bare fiber  
M=0.9mm  
loose tube

Fiber Length  
0=0.5m  
1=0.75m  
2=1.0m  
3=1.5m  
4=2.0m  
S=Specify

Connector  
0=None  
1=FC/PC  
2=FC/SPC  
3=FC/APC  
4=SC/SPC  
5=SC/APC  
6=ST  
7=FC/UPC  
8=SC/UPC  
9=MU  
A=LC  
B=SC/PC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1064/1310nm Single Mode Fiber WDM



## Product Features

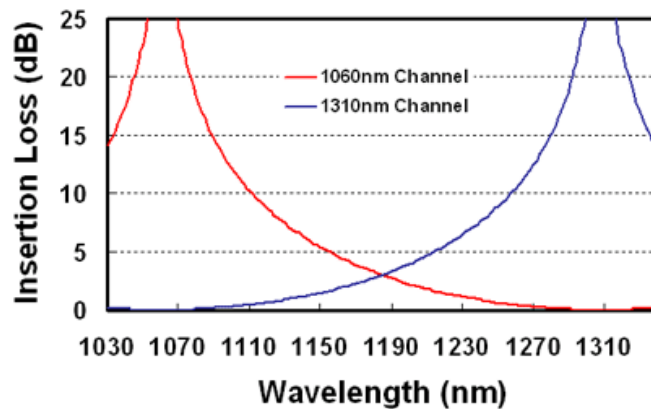
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier

Specifications		1064/1310nm	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	1064±15	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1310±15 nm	Min. dB	17	16
Longer Wavelength Channel	nm	1310±15	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1064±15 nm	Min. dB	17	16
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O							
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector						
G=1064/1310nm	1=1x2 2=2x2	P=Premium A=A grade	5=S6 7=S8 D=M1	5=980-20 7=H1060 FLEX 8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1064/1550nm Single Mode Fiber WDM



## Product Features

- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier

Specifications			1064/1550nm	
Parameter	Unit		Premium	A grade
Shorter Wavelength Channel		nm	1064±15	
Insertion Loss	Max.	dB	0.15	0.25
PDL	Max.	dB	0.02	0.1
Isolation @ 1530 to 1565 nm	Min.	dB	18	16
Longer Wavelength Channel		nm	1530 to 1565	
Insertion Loss	Max.	dB	0.15	0.25
PDL	Max.	dB	0.05	0.1
Isolation @ 1064±15 nm	Min.	dB	18	16
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S7	Ø3x60: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
E=1064/1550nm	1=1x2 2=2x2	P=Premium A=A grade	6=S7 7=S8 D=M1	5=980-20 7=HI1060 FLEX 8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1310/1490/1550nm Single Mode Fiber WDM Module



## Product Features

- Low PDL
- Low Insertion Loss
- High Isolation
- Stable and Reliable

## Product Applications

- Passive Optical Network
- CATV System

Specifications		1310/1490/1550nm	
Parameter	Unit	Premium	A grade
1310nm Channel		1310±5	
Insertion Loss	Max. dB	0.6	0.7
PDL	Max. dB	0.15	0.2
Isolation @ 1490±5 nm	Min. dB	20	18
Isolation @ 1550±5 nm	Min. dB	20	18
1490nm Channel		1490±5	
Insertion Loss	Max. dB	0.4	0.5
PDL	Max. dB	0.15	0.2
Isolation @ 1310±5 nm	Min. dB	13	11
Isolation @ 1550±5 nm	Min. dB	13	11
1550nm Channel		1550±5	
Insertion Loss	Max. dB	0.6	0.7
PDL	Max. dB	0.15	0.2
Isolation @ 1310±5 nm	Min. dB	20	18
Isolation @ 1490±5 nm	Min. dB	14	12
Operating power	Max. W	5	
Operating Temperature	°C	-20 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	M6	18x115x141: for 0.9mm loose tube or 2mm cable or 3mm cable

## Ordering Information

W	D	M			O	O						
Wavelength H=1310/1490/1550nm		Structure 3=1x3		Grade P=Premium A=A grade		Package I=M6	Fiber Type 1=G652 or Equivalent	Pigtail M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1310/1490nm Single Mode Fiber WDM



## Product Features

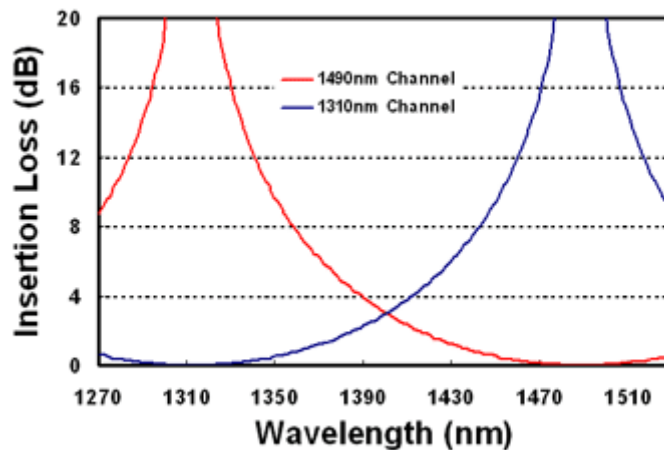
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- CATV System
- Passive Optical Network

Specifications		1310/1490nm	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	1310±10	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1490±10 nm	Min. dB	17	16
Longer Wavelength Channel	nm	1490±10	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1310±10 nm	Min. dB	17	16
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S13	Ø3x66: for bare fiber
		S9	Ø3x76: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O					
Wavelength D=1310/1490nm	Structure 1=1x2 2=2x2				Grade P=Premium A=A grade	Package C=S13 8=S9 D=M1	Fiber Type 1=G652 or Equivalent	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC	

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1310/1550nm Single Mode Fiber WDM



## Product Features

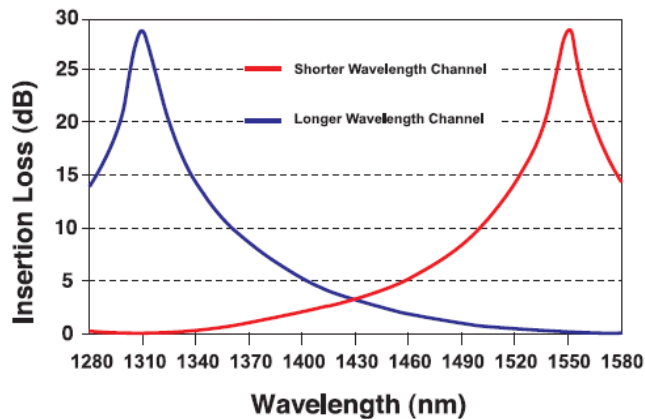
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- CATV System
- Passive Optical Network

Specifications		1310/1550nm	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	1310±15	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1550±15 nm	Min. dB	17	16
Longer Wavelength Channel	nm	1550±15	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.1	0.15
Isolation @ 1310±15 nm	Min. dB	17	16
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information



Wavelength  
5=1310/1550nm  
Structure  
1=1x2  
2=2x2

Grade  
P=Premium  
A=A grade

Package  
5=S6  
7=S8  
D=M1

Fiber Type  
1=G652 or  
Equivalent

Pigtail  
S=250µm  
bare fiber  
M=0.9mm  
loose tube  
L=3mm cable  
R=2mm cable

Fiber Length  
0=0.5m  
1=0.75m  
2=1.0m  
3=1.5m  
4=2.0m  
5=Specify

Connector  
0=None  
1=FC/PC  
2=FC/SPC  
3=FC/APC  
4=SC/SPC  
5=SC/APC  
6=ST  
7=FC/UPC  
8=SC/UPC  
9=MU  
A=LC  
B=SC/PC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1310/1550nm WDM Module with High Isolation



## Product Features

- Ultra-High Isolation
- Low PDL
- Low Insertion Loss
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- CATV System

Specifications		1310/1550nm	
Parameter	Unit	High Isolation	Ultra-High Isolation
Shorter Wavelength Channel	nm	1310±15	
Insertion Loss	Max. dB	0.7	1.0
PDL	Max. dB	0.1	0.15
Isolation @ 1550±15 nm	Min. dB	34	45
Longer Wavelength Channel	nm	1550±15	
Insertion Loss	Max. dB	0.7	1.0
PDL	Max. dB	0.1	0.15
Isolation @ 1310±15 nm	Min. dB	34	45
Operating power	Max. W	5	
Operating Temperature	°C	-20 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	M5	10x80x100: for 0.9mm loose tube or 2mm cable or 3mm cable

## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
5=1310/1550nm	1=1x2 2=2x2	H=High Isolation U=Ultra-High Isolation	H=M5	1=G652 or Equivalent	M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1480/1550nm(1480/1590nm) Single Mode Fiber WDM



## Product Features

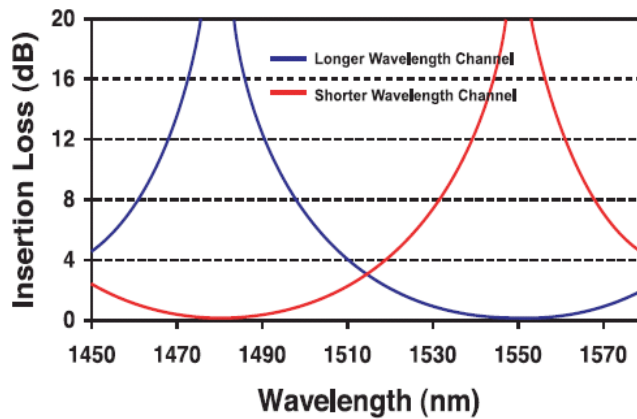
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		1480/1550nm		1480/1590nm	
Parameter	Unit	Premium	A grade	Premium	A grade
Shorter Wavelength Channel	nm	1480±5		1480±5	
Insertion Loss	Max. dB	0.3	0.4	0.3	0.4
PDL	Max. dB	0.1	0.15	0.1	0.15
Isolation@1550 or 1590±5 nm	Min. dB	15	13	17	15
Longer Wavelength Channel	nm	1550±5		1590±5	
Insertion Loss	Max. dB	0.3	0.4	0.3	0.4
PDL	Max. dB	0.1	0.15	0.1	0.15
Isolation@1480±5 nm	Min. dB	15	13	17	15
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S9	Ø3x76: for bare fiber		
		S10	Ø3x92: for 0.9mm loose tube		
		M5	10x80x100: for 0.9mm loose tube or 2mm cable or 3mm cable		

## 1480/1550nm WDM Typical Spectrum



## Ordering Information

W	D	M				O	O							
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector							
7=1480/1550nm 8=1480/1590nm	1=1x2 2=2x2	P=Premium A=A grade	8=S9 9=S10 H=M5	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC							

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1550/1625nm Single Mode Fiber WDM



## Product Features

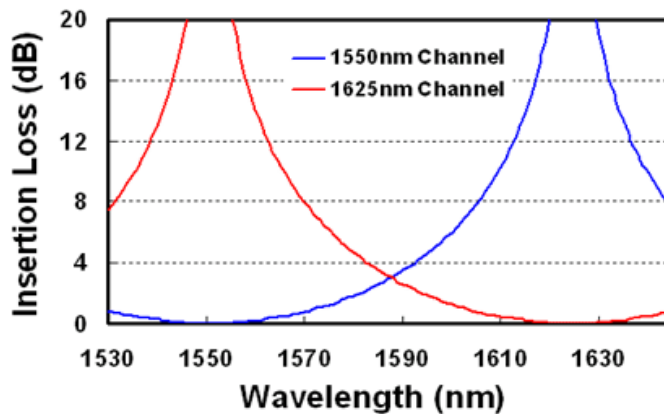
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- CATV System
- Optical Fiber Sensor

Specifications			1550/1625nm	
Parameter	Unit		Premium	A grade
Shorter Wavelength Channel	nm		1550±5	
Insertion Loss	Max. dB		0.3	0.4
PDL	Max. dB		0.1	0.15
Isolation @ 1625±5 nm	Min. dB		15	13
Longer Wavelength Channel	nm		1625±5	
Insertion Loss	Max. dB		0.3	0.4
PDL	Max. dB		0.1	0.15
Isolation @ 1550±5 nm	Min. dB		15	13
Operating power	Max. W		5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S9	Ø3x76: for bare fiber	
		S10	Ø3x92: for 0.9mm loose tube	
		M3	7.5x18x85: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
6=1550/1625nm	1=1x2 2=2x2	P=Premium A=A grade	8=S9 9=S10 F=M3	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 980-20 or HI1060 Flex Fiber 980nm/C or L Band WDM



## Product Features

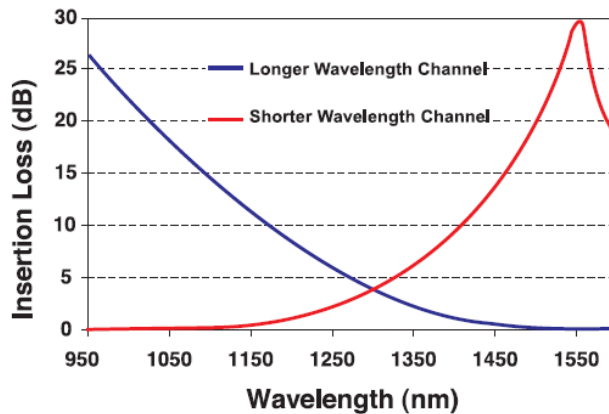
- Ultra-Low PDL
- Ultra-Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications			980nm/C or L Band	
Parameter	Unit		Premium	A grade
Shorter Wavelength Channel	nm		960 to 990	
Insertion Loss	Max.	dB	0.1	0.2
PDL	Max.	dB	0.01	0.02
Isolation @ C or L band	Min.	dB	20	18
Longer Wavelength Channel	nm		C Band (1528 to 1565) or L Band (1570 to 1605)	
Insertion Loss	Max.	dB	0.1	0.2
PDL	Max.	dB	0.01	0.02
Isolation @ 960 to 990 nm	Min.	dB	20	18
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## 980nm/C Band WDM Typical Spectrum



## Ordering Information

W	D	M			O	O							
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector						
1=980nm/ C Band 2=980nm/ L Band	1=1x2 2=2x2	P=Premium A=A grade	5=S6 7=S8 D=M1	5=980-20 7=HI1060 Flex	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 980-20 Fiber 980nm/C+L Band WDM



## Product Features

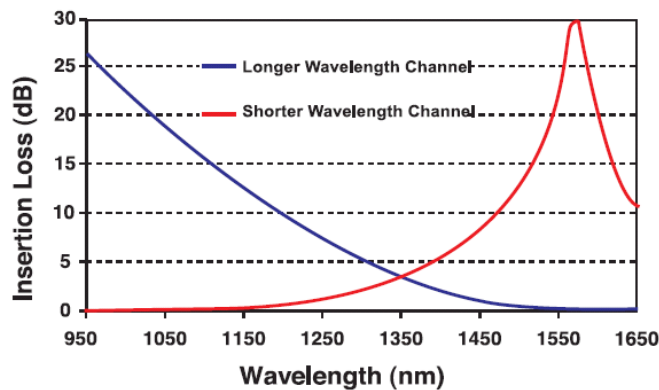
- Ultra-Low PDL
- Ultra-Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		980nm/C + L Band	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	960 to 990	
Insertion Loss	Max. dB	0.1	0.2
PDL	Max. dB	0.01	0.02
Isolation @ C + L band	Min. dB	15	14
Longer Wavelength Channel	nm	C+L Band (1528 to 1605)	
Insertion Loss	Max. dB	0.15	0.25
PDL	Max. dB	0.02	0.03
Isolation @ 960 to 990 nm	Min. dB	20	18
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
3=980nm/ C+L Band	1=1x2 2=2x2	P=Premium A=A grade	5=S6 7=S8 D=M1	5=980-20	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 980-16 Fiber 980nm/C or L Band WDM



## Product Features

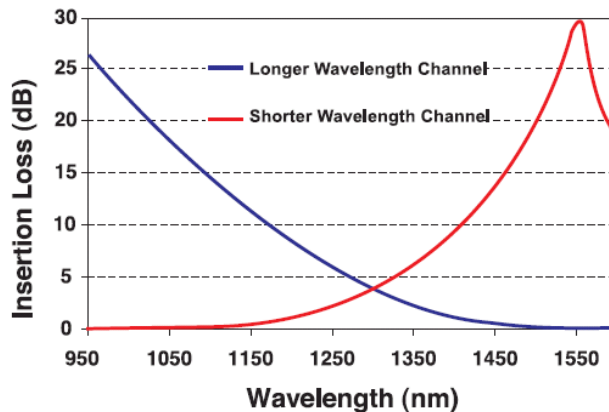
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		980nm/C or L Band	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	960 to 990	
Insertion Loss	Max. dB	0.1	0.2
PDL	Max. dB	0.05	0.05
Isolation @ C or L band	Min. dB	20	18
Longer Wavelength Channel	nm	C Band (1528 to 1565) or L Band (1570 to 1605)	
Insertion Loss	Max. dB	0.1	0.2
PDL	Max. dB	0.05	0.05
Isolation @ 960 to 990 nm	Min. dB	20	18
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## 980nm/C Band WDM Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength	Structure	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector					
1=980nm/ C Band 2=980nm/ L Band	1=1x2 2=2x2	P=Premium A=A grade	5=S6 7=S8 D=M1	8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/U/PC 8=SC/U/PC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 980-16 Fiber 980nm/C+L Band WDM



## Product Features

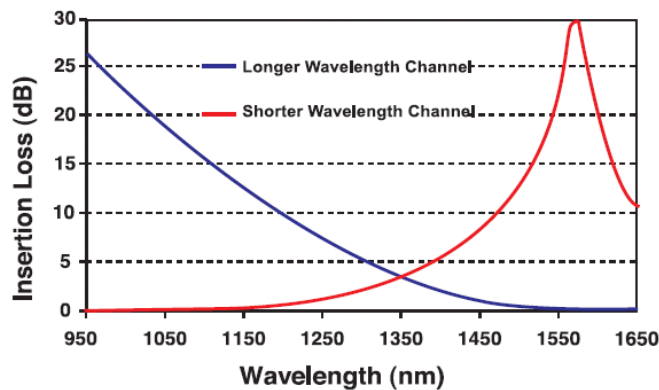
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		980nm/C + L Band	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	960 to 990	
Insertion Loss	Max. dB	0.1	0.2
PDL	Max. dB	0.05	0.05
Isolation @ C + L band	Min. dB	15	14
Longer Wavelength Channel	nm	C+L Band (1528 to 1605)	
Insertion Loss	Max. dB	0.3	0.4
PDL	Max. dB	0.05	0.05
Isolation @ 960 to 990 nm	Min. dB	20	18
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength 3=980nm/ C+L Band	Structure 1=1x2 2=2x2	Grade P=Premium A=A grade	Package 5=S6 7=S8 D=M1	Fiber Type 8=980-16	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# Hybrid (Dissimilar) Fiber 980nm/C or L Band WDM



## Product Features

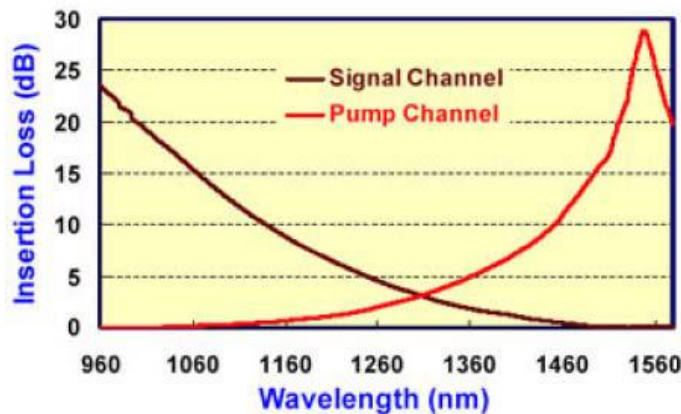
- Low PDL
- Low Insertion Loss
- High Isolation and High Return Loss
- SMF28e Fiber at Signal Port
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications		980nm/C or L Band	
Parameter	Unit	Premium	A grade
Shorter Wavelength Channel	nm	960 to 990	
Insertion Loss	Max. dB	0.1	0.2
PDL	Max. dB	0.01	0.02
Isolation @ C or L band	Min. dB	20	18
Longer Wavelength Channel	nm	C Band (1528 to 1565) or L Band (1570 to 1605)	
Insertion Loss	Max. dB	0.15	0.25
PDL	Max. dB	0.01	0.02
Isolation @ 960 to 990 nm	Min. dB	20	18
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## 980nm/C Band WDM Typical Spectrum



## Ordering Information

W	D	M			O	1						
Wavelength 1=980nm/ C Band 2=980nm/ L Band	Structure 1=1x2 2=2x2	Fiber Type (Signal port) 1=G652 or Equivalent	Grade P=Premium A=A grade	Package 5=S6 7=S8 D=M1	Fiber Type (Pump to common port) 5=980-20 7=H11060FLEX 8=980-16	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/APC 3=FC/APC 4=SC/APC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC B=SC/PC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2 (2x2) 635/1064nm Single Mode Fiber WDM



## Product Features

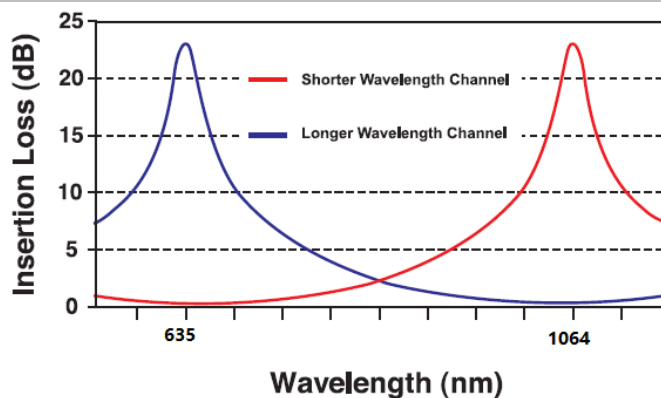
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module
- Fiber Laser

Specifications		635/1064nm (630-HP fiber)		635/1064nm (Hi1060 fiber)	
Parameter	Unit	Premium	A grade	Premium	A grade
Shorter Wavelength Channel	nm	635±5			
Insertion Loss	Max. dB	0.7	0.9	1.0	1.2
PDL	Max. dB	0.2	0.25	0.2	0.25
Isolation @ 1064±5 nm	Min. dB	20	18	20	18
Longer Wavelength Channel	nm	1064±5			
Insertion Loss	Max. dB	1.0	1.2	0.5	0.7
PDL	Max. dB	0.2	0.25	0.2	0.25
Isolation @ 635±5 nm	Min. dB	18	16	18	16
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S9	Ø3x76: for bare fiber		
		S10	Ø3x92: for 0.9mm loose tube		
		M3	7.5x18x85: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Typical Spectrum



## Ordering Information

W	D	M			O	O						
Wavelength B=635/1064nm S=Specify	Structure 1=1x2 2=2x2				Grade P=Premium A=A grade	Package 8=S9 9=S10 F=M3	Fiber Type A=630-HP 6=Hi1060	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UFC 8=SC/UFC 9=MU A=LC B=SC/PC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

## 80/165µm 980-20 Fiber 980nm/C or L Band Compact WDM



### Product Features

- Very Compact Size
- Low PDL
- Low Insertion Loss
- High Isolation
- High Return Loss
- Stable and Reliable

### Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications			980nm/C or L Band	
Parameter		Unit	Premium	A grade
Shorter Wavelength Channel		nm	960 to 990	
Insertion Loss	Max.	dB	0.4	0.5
PDL	Max.	dB	0.05	0.05
Isolation @ C or L band	Min.	dB	20	18
Longer Wavelength Channel		nm	C Band (1528 to 1565) or L Band (1570 to 1605)	
Insertion Loss	Max.	dB	0.4	0.5
PDL	Max.	dB	0.05	0.05
Isolation @ 960 to 990 nm	Min.	dB	20	18
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S4	Ø3x35: for bare fiber
			S6	Ø3x54: for 0.9mm loose tube

### Ordering Information

S	W	D	M			O						
				Wavelength 1=980nm/ C Band 2=980nm/ L Band	Structure 1=1x2 2=2x2		Grade P=Premium A=A grade	Package 3=S4 5=S6	Fiber Type N=80/165µm 980-20	Pigtail F=165µm bare fiber M=0.9mm loose tube	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None

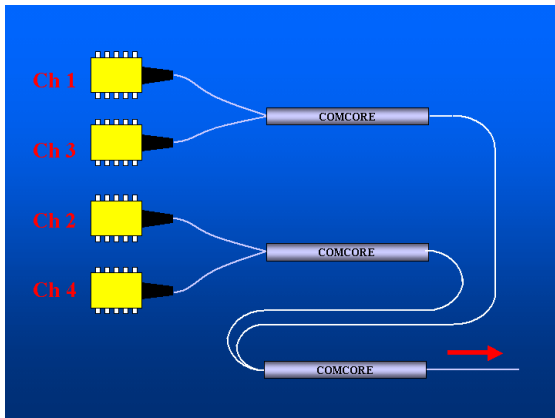
Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



An aerial photograph of a vast, bright blue sky filled with numerous white, fluffy clouds. The clouds are scattered across the frame, with some appearing as thin, wispy streaks and others as larger, more dense patches. The overall scene is bright and clear, suggesting a high-altitude or high-altitude perspective.

**Comcore's Fused Wavelength  
Combiners Change Your Conception**

# 14xx Four-Channel Wavelength Pump Combiner



## Product Features

- Superfused Allfiber Approach
- Very Low Insertion Loss
- Low Polarization Dependent Loss
- High Power Handling
- Ultra-High Reliability

## Product Applications

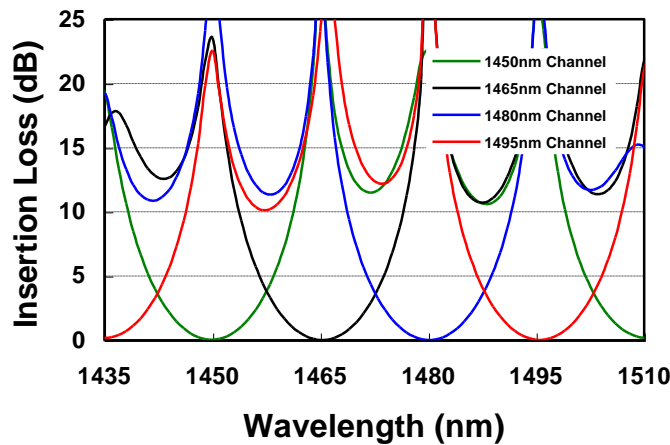
- High Power Sources
- Optical Amplifiers
- Optical Instrument

## Parameters

## Specifications

Channel Space		nm	10 to 20
Channel Bandwidth		nm	2
Insertion Loss	Max.	dB	0.8
Polarization Dependent Loss	Max	dB	0.2
Isolation	Min.	dB	14
Operating power	Max.	mW	1000
Operating Temperature		°C	-10 to +70
Storage Temperature		°C	-40 to +85
Package Type		mm	S10   Ø3x92: for bare fiber

## Typical Spectrums for 1450/1465/1480/1495nm Combiner

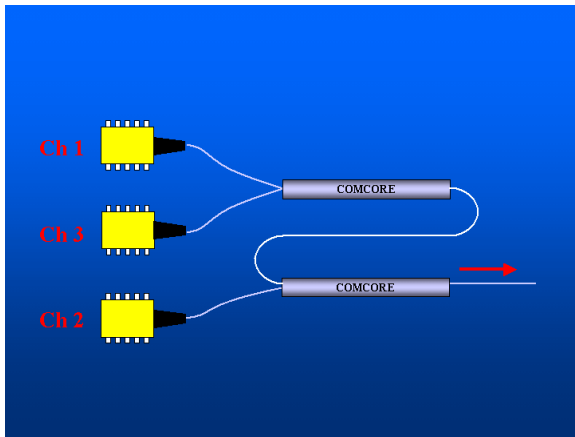


## Ordering Information

<b>W</b>	<b>P</b>	<b>C</b>	<b>4</b>							
Starting Wavelength 00=1400nm 01=1401nm 02=1402nm ... 40=1440nm 41=1441nm ... 78=1478nm 79=1479nm 80=1480nm	Channel Space 10=10nm 11=11nm 12=12nm ... 15=15nm 16=16nm ... 18=18nm 19=19nm 20=20nm	Package 9=S10	Fiber Type 1=G652 or Equivalent	Pigtail S=250µm bare fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 3=FC/APC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 14xx Three-Channel Wavelength Pump Combiner



## Product Features

- Superfused Allfiber Approach
- Very Low Insertion Loss
- Low Polarization Dependent Loss
- High Power Handling
- Ultra-High Reliability

## Product Applications

- High Power Sources
- Optical Amplifiers
- Optical Instrument

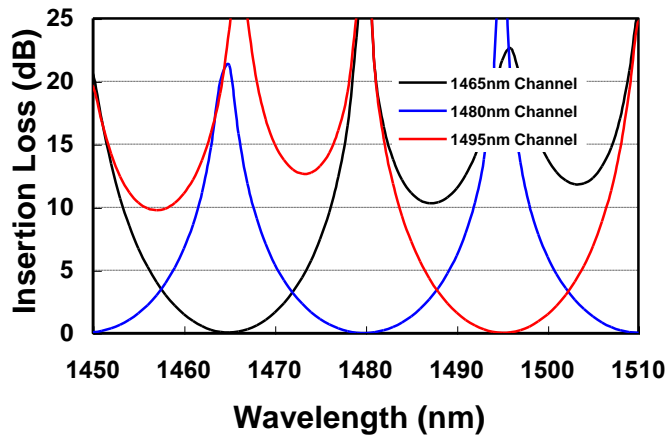
## Parameters

## Specifications

Parameters		Specifications	
Channel Space	nm	10 to 19	20 to 30
Channel Bandwidth	nm	2	3
Insertion Loss for Channel 1 and 3*	Max. dB		0.8
Insertion Loss for Channel 2	Max. dB		0.4
Polarization Dependent Loss	Max. dB		0.2
Isolation	Min. dB		14
Operating power	Max. mW		1000
Operating Temperature	°C		-10 to +70
Storage Temperature	°C		-40 to +85
Package Type	mm	S10	Ø3x92: for bare fiber

\* Channel 1 and 3 are the shortest and the longest wavelength Channels, individually.

## Typical Spectrums for 1465/1480/1495nm Combiner



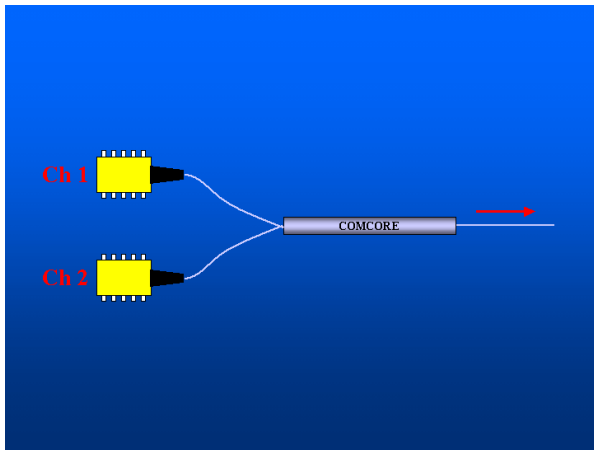
## Ordering Information

W	P	C	3							
Starting Wavelength				Channel Space		Package	Fiber Type	Pigtail	Fiber Length	Connector
00=1400nm				10=10nm	9=S10	1=G652 or Equivalent	S=250µm bare fiber	0=0.5m	0=None	
01=1401nm				11=11nm				1=0.75m	1=FC/PC	
02=1402nm				12=12nm				2=1.0m	3=FC/APC	
...				15=15nm				3=1.5m		
50=1450nm				...				4=2.0m		
51=1451nm				19=19nm				S=Specify		
...				20=20nm						
78=1478nm				25=25nm						
79=1479nm				26=26nm						
80=1480nm				...						
				29=29nm						
				30=30nm						

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 14xx Two-Channel Wavelength Pump Combiner



## Product Features

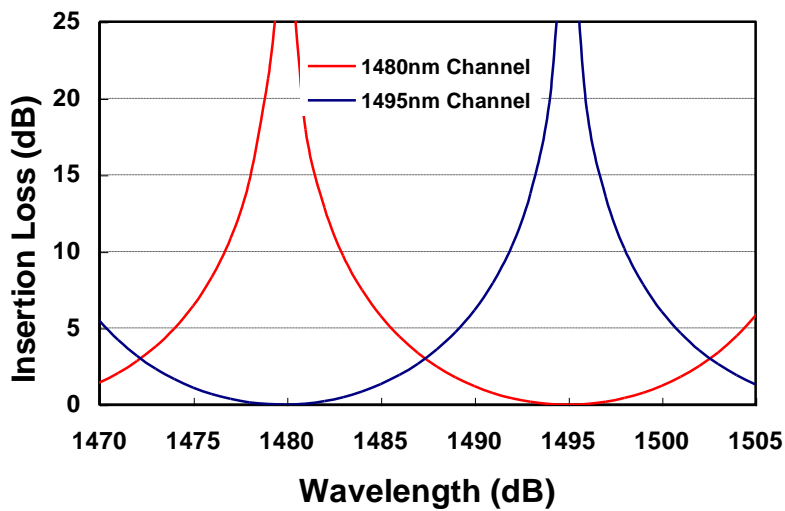
- Super Fused All fiber Approach
- Very Low Insertion Loss
- Low Polarization Dependent Loss
- High Power Handling
- Ultra-High Reliability

## Product Applications

- High Power Sources
- Optical Amplifiers
- Optical Instrument

Parameters		Specifications			
Channel Space		nm	10 to 19	20 to 29	30 to 40
Channel Bandwidth		nm	2	3	4
Insertion Loss	Max.	dB		0.3	
PDL	Max.	dB		0.2	
Isolation	Min.	dB		14	
Operating power	Max.	mW		1000	
Operating Temperature		°C		-10 to +70	
Storage Temperature		°C		-40 to +85	
Package Type		mm	S10	Ø3x92: for bare fiber	

## Typical Spectrums for 1480/1495nm Combiner

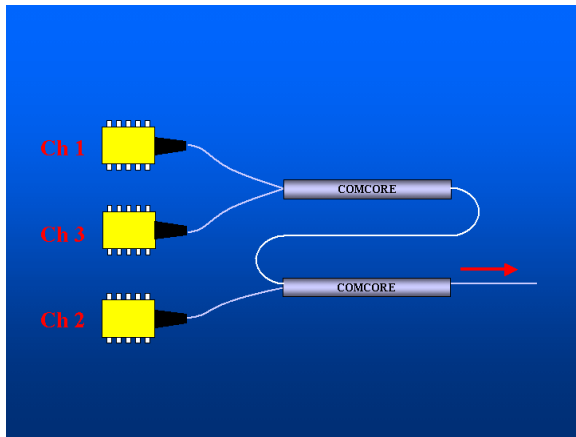


## Ordering Information

W	P	C	2							
				Starting Wavelength	Channel Space	Package	Fiber Type	Pigtail	Fiber Length	Connector
				00=1400nm	10=10nm	9=S10	1=G652 or Equivalent	S=250µm bare fiber	0=0.5m	0=None
				01=1401nm	11=11nm				1=0.75m	1=FC/PC
				02=1402nm	12=12nm				2=1.0m	3=FC/APC
				...	...				3=1.5m	
				50=1450nm	15=15nm				4=2.0m	
				51=1451nm	16=17nm				S=Specify	
				...	17=17nm					
				87=1487nm	...					
				88=1488nm	38=38nm					
				89=1489nm	39=39nm					
					40=40nm					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# RGB Three-Channel Wavelength Combiner



## Product Features

- Super-fused All fiber Approach
- Very Low Insertion Loss
- Low Polarization Dependent Loss
- High Power Handling
- Ultra-High Reliability

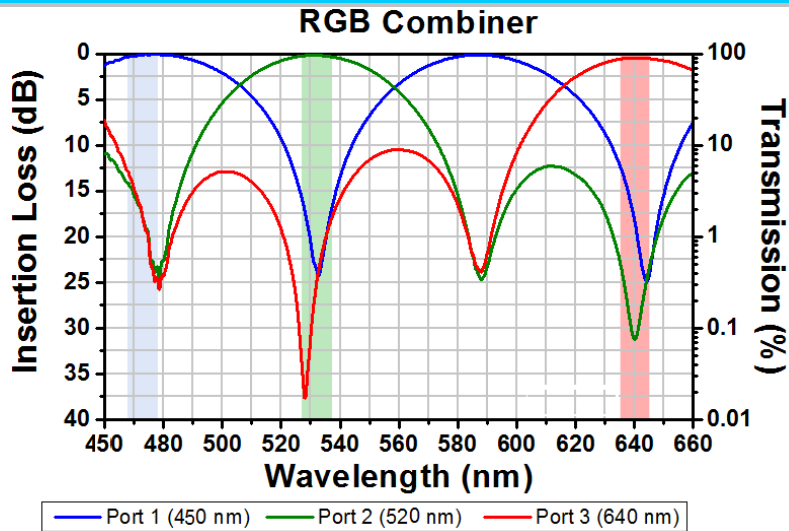
## Product Applications

- Fluorescence Microscopy
- Laser Display
- VR/AR(Virtual Reality)
- Optical Instrument

Parameters		Specifications		
Channel Wavelength	nm	450(Ch1)	520(Ch2)	640(Ch3)
Bandwidth	nm	± 5		
Insertion Loss for Channel 1 and 3*	Max. dB	0.9		
Insertion Loss for Channel 2	Max. dB	0.8		
Polarization Dependent Loss	Max dB	0.2		
Isolation	Min. dB	18		
Operating power	Max. mW	1000		
Operating Temperature	°C	-10 to +70		
Storage Temperature	°C	-40 to +85		
Package Type	mm	S9	Ø3x76: for bare fiber	
		S10	Ø3x92: for 0.9mm loose tube	
		M5	100x80x10: for 0.9mm loose tube, 2mm cable or 3mm cable	

\* Channel1 and 3 are the shortest and the longest wavelength Channels, individually.

## Typical Spectrums for 450/520/640nm Combiner

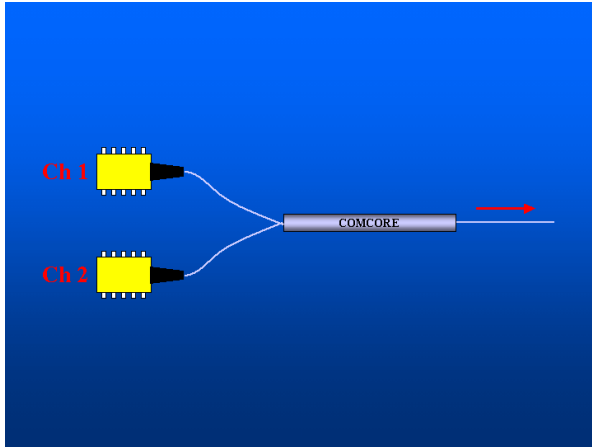


## Ordering Information

<b>W</b>	<b>P</b>	<b>C</b>	<b>3</b>	<b>0</b>					
Starting Wavelength RGB=450,520,640 RGP=405,532,650				Package 8=S9 9=S10 H=M5	Fiber Type C=460-HP D=405-HP	Pigtail S=250µm bare fiber M=0.9mm Loos tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/SPC 2=FC/PC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC	

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# RB GB RG Two-Channel Wavelength Combiner



## Product Features

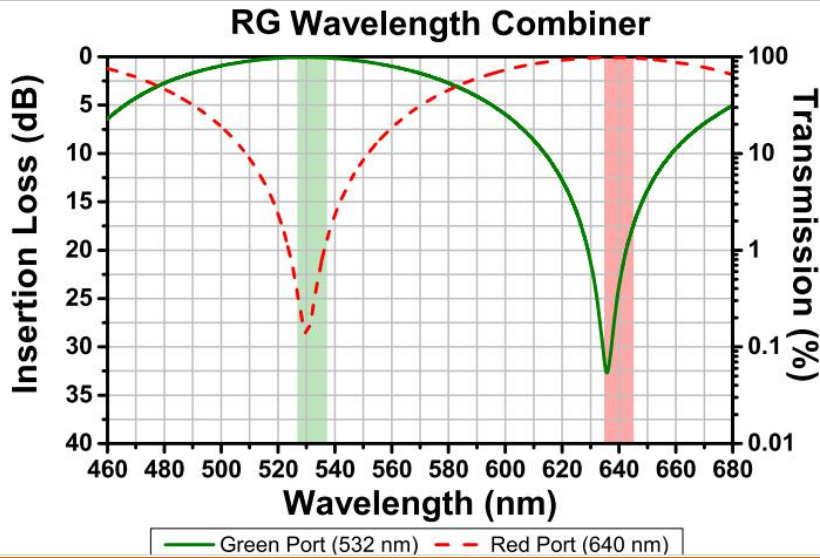
- Super fused All fiber Approach
- Very Low Insertion Loss
- Low Polarization Dependent Loss
- High Power Handling
- Ultra-High Reliability

## Product Applications

- Fluorescence Microscopy
- Laser Display
- VR/AR(Virtual Reality)
- Optical Instrument

Parameters		Specifications		
Channel Space		nm	532	640
Bandwidth		nm	± 5	
Insertion Loss	Max.	dB	0.9	
PDL	Max.	dB	0.2	
Isolation	Min.	dB	20	
Operating power	Max.	mW	1000	
Operating Temperature		°C	-10 to +70	
Storage Temperature		°C	-40 to +85	
Package Type	mm	S9	Ø3x76: for bare fiber	
	mm	S10	Ø3x92: for 0.9mm loose tube	
	mm	M5	10x80x100: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Typical Spectrums for 532/640nm Combiner



## Ordering Information



Starting Wavelength  
 RB=450nm,640nm  
 BG=450nm,532nm  
 RG=532nm,640nm

Package  
 8=S9  
 9=S10  
 H=M5

Fiber Type  
 C=400-HP  
 B=630-HP

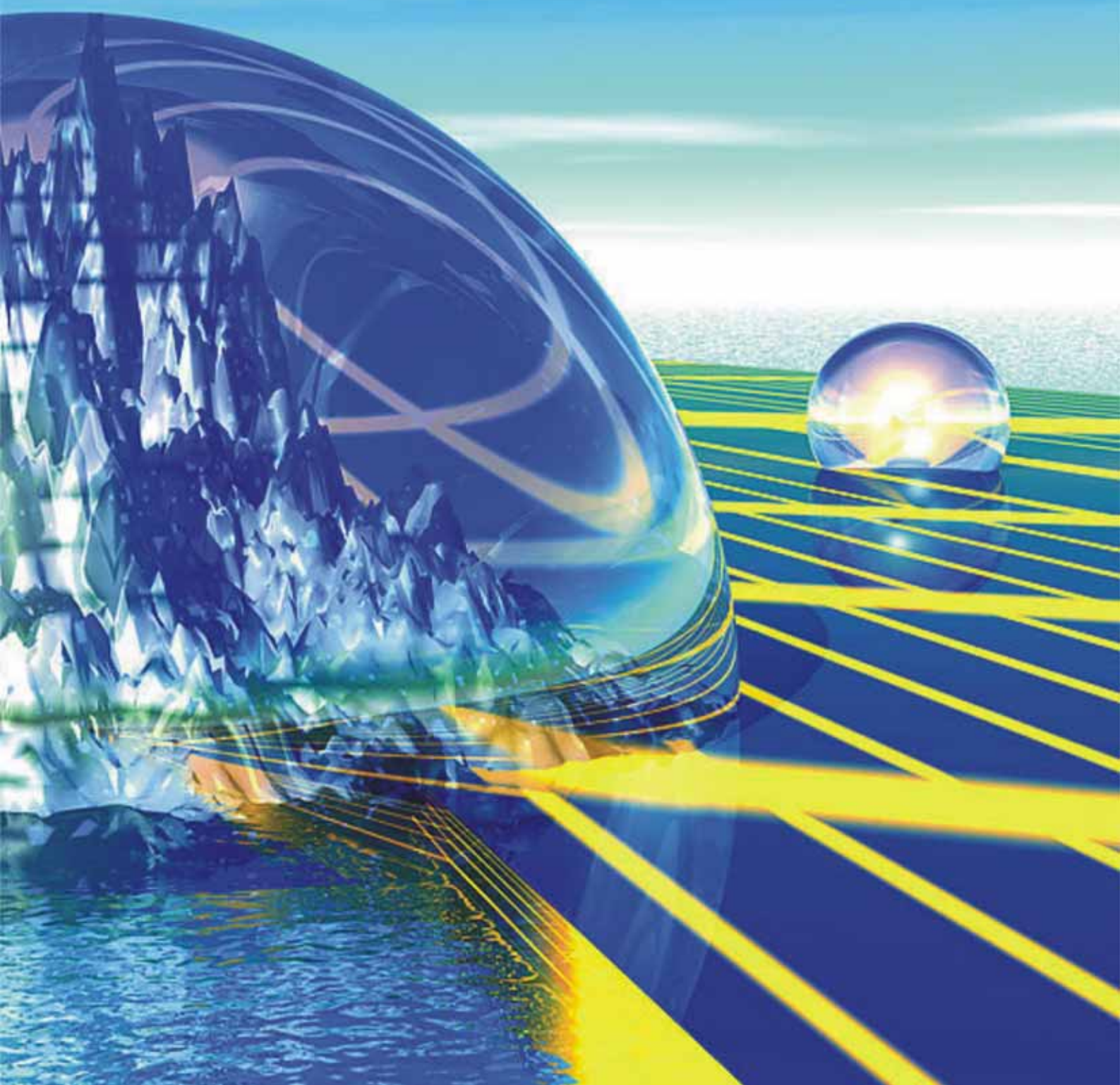
Pigtail  
 S=250µm  
 bare fiber  
 M=0.9mm  
 loose tube  
 L=3mm cable  
 R=2mm cable

Fiber Length  
 0=0.5m  
 1=0.75m  
 2=1.0m  
 3=1.5m  
 4=2.0m  
 S=Specify

Connector  
 0=None  
 1=FC/PC  
 2=FC/SPC  
 3=FC/APC  
 4=SC/SPC  
 5=SC/APC  
 6=ST  
 7=FC/UPC  
 8=SC/UPC  
 9=MU  
 A=LC/PC  
 B=SC/PC  
 C=LC/UPC

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.

# **Single Mode Fiber Splitter and Star/Tree Splitter Modules**





# 1x2(2x2) 80µm Fiber Single Mode Narrowband Splitter



## Product Features

- Very Compact Size
- Low Insertion Loss
- Low PDL
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±20	
Insertion Loss	Max. dB	3.5	3.6
Excess Loss	Typ. dB	0.1	0.15
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.05	0.1
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S2	Ø3x25.4: for bare fiber
		S4	Ø3x35: for 0.9mm loose tube

## Ordering Information

S	N	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm S=Specify	1=1x2 2=2x2	50=50:50	P=Premium A=A grade	1=S2 3=S4	T=80/165µm G652 core diameter 8µm Y=80/165µm G652 core diameter 6µm D=80/165µm 980-20	F=165µm bare fiber M=0.9mm loose tube	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Mini Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Fiber Gyroscope
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor
- EDFA Module

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	A grade
Port Configuration			1x2 or 2x2	
Central Wavelength	nm		1270~2000	
Bandwidth	nm		±40	
Insertion Loss	Max.	dB	3.5	3.6
Excess Loss	Typ.	dB	0.15	0.25
Uniformity	Max.	dB	0.6	1.0
PDL	Max.	dB	0.1	0.15
Operating power	Max.	W	5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S1	Ø2.4x25: for bare fiber	

## Ordering Information



Wavelength 1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm P=2000nm S=Specify	Structure 1=1x2 2=2x2	Splitting Ratio 50=50:50	Grade P=Premium A=A grade	Package 0=S1	Fiber Type 1=G652 or Equivalent H=SM1950	Pigtail S=250µm bare fiber	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC
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Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Compact Single Mode Broadband Splitter



## Product Features

- Very Compact Size
- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±40	
Insertion Loss	Max. dB	3.4	3.7
Excess Loss	Typ. dB	0.1	0.15
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S4	Ø3x35: for bare fiber
		S5	Ø3x40: for 0.9mm loose tube
		S6	Ø3x54: for 0.9mm loose tube

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.7	3.7
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.2	7.5	1.3	8.0
90:10	0.6	10.8	0.8	12
95:5	0.4	14.6	0.5	18.4
96:4	0.35	16.0	0.45	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.25	19.0	0.35	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

C	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	3=S4 4=S5 5=S6	1=G652 or Equivalent 2=SM 1950	S=250µm bare fiber M=0.9mm loose tube	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/APC 3=FC/APC 4=SC/APC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1x2(2x2) Compact Single Mode Narrowband Splitter



## Product Features

- Very Compact Size
- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±20	
Insertion Loss	Max. dB	3.5	3.7
Excess Loss	Typ. dB	0.1	0.15
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S1	Ø2.4x25 for bare fiber
		S3	Ø3x30 for bare fiber
		S5 or S6	Ø3x40 or Ø3x54 for 0.9mm loose tube

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.5	3.5	3.7	3.7
60:40	2.7	4.5	2.8	4.8
70:30	2.0	5.8	2.0	6.1
80:20	1.25	7.7	1.3	8.0
90:10	0.7	11.2	0.8	12
95:5	0.45	14.6	0.5	18.4
96:4	0.38	16.0	0.45	19.0
97:3	0.35	17.5	0.4	19.5
98:2	0.30	19.0	0.35	20.0
99:1	0.25	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

C	N	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
1=1625nm	1=1x2	05=99.5:0.5	P=Premium	0=S1	1=G652 or	S=250µm	0=0.5m	0=None		
2=1590nm	2=2x2	99=99:1	A=A grade	2=S3	Equivalent	bare fiber	1=0.75m	1=FC/PC		
3=1570nm		98=98:2		4=S5	5=980-20	M=0.9mm	2=1.0m	2=FC/SPC		
4=1550nm		97=97:3		5=S6	6=H11060	loose tube	3=1.5m	3=FC/APC		
5=1480nm		96=96:4			7=H11060 FLEX		4=2.0m	4=SC/SPC		
6=1475nm		95=95:5			8=980-16		S=Specify	5=SC/APC		
7=1310nm		90=90:10			9=H1780C			6=ST		
8=1064nm		80=80:20			H=SM1950			7=FC/UPC		
R=1030nm		70=70:30			L=Large mode			8=SC/UPC		
9=980nm		60=60:40			area fiber			9=MU		
A=850nm		50=50:50						A=LC/PC		
K=830nm								B=SC/PC		
L=780nm								C=LC/UPC		
P=2000nm								D=LC/APC		
S=Specify										

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# 1x2 PDL-Free 50/50 Broadband Splitter



## Product Features

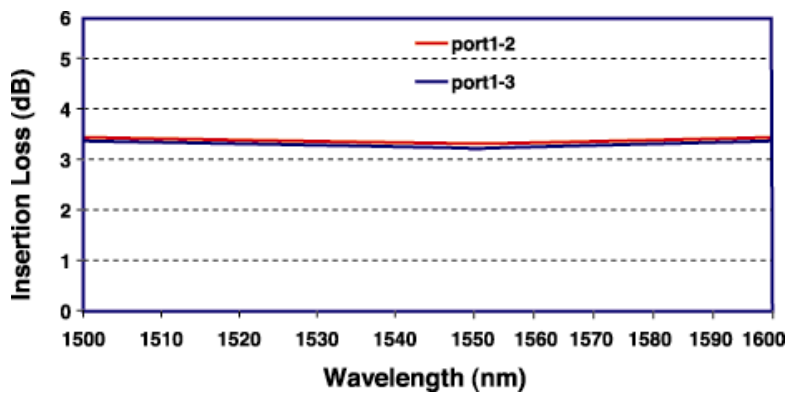
- PDL-Free
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2	
Bandwidth	nm	±40	
Insertion Loss	Max. dB	3.4	3.6
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.5	0.8
PDL	Max. dB	0.01	0.02
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S5 or S6	Ø3x40 or Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

N	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
1=1625nm	1=1x2	50=50:50	P=Premium	4=S5	1=G652 or Equivalent	S=250µm bare fiber	0=0.5m	0=None		
2=1590nm			A=A grade	5=S6	H=SM1950	M=0.9mm loose tube	1=0.75m	1=FC/PC		
3=1570nm				7=S8		L=3mm cable	2=1.0m	2=FC/SPC		
4=1550nm				D=M1		R=2mm cable	3=1.5m	3=FC/APC		
5=1480nm							4=2.0m	4=SC/SPC		
6=1475nm							S=Specify	5=SC/APC		
7=1310nm								6=ST		
P=2000nm								7=FC/UPC		
S=Specify								8=SC/UPC		
								9=MU		
								A=LC/PC		
								B=SC/PC		
								C=LC/UPC		
								D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Single Mode Allwavelength-Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- Ultra-Broadband
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network
- FTTx

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	1270 to 1605	
Insertion Loss	Max. dB	3.6	4.0
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.8	1.2
PDL	Max. dB	0.15	0.20
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

Max.IL excludes 1385±20nm wavelength.

## Splitting Ratio & Insertion Loss Conversion Table

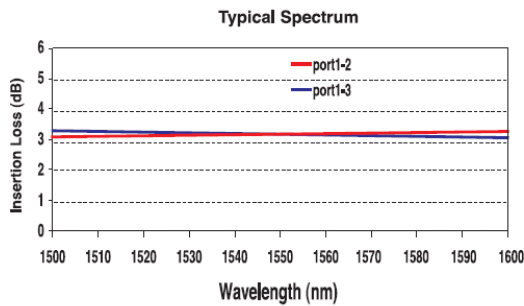
Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.6	3.6	4.0	4.0
60:40	2.7	4.8	2.9	5.1
70:30	2.0	6.2	2.2	6.6
80:20	1.3	8.0	1.5	8.5
90:10	0.6	11.5	0.8	12.9
95:5	0.4	15.6	0.5	19.2
98:2	0.3	20	0.4	21.5
99:1	0.3	24	0.4	24.6

## Ordering Information

A	B	S									
			Wavelength H=1270 to 1605nm	Structure 1=1x2 2=2x2	Splitting Ratio 99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	Grade P=Premium A=A grade	Package 5=S6 7=S8 D=M1	Fiber Type 1=G652 or Equivalent	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade	
Port Configuration		1x2 or 2x2		
Bandwidth	nm	±40		
Insertion Loss	Max. dB	3.4	3.6	
Excess Loss	Typ. dB	0.07	0.1	
Uniformity	Max. dB	0.6	1.0	
PDL	Max. dB	0.1	0.15	
Operating power	Max. W	5		
Operating Temperature	°C	-40 to +85		
Storage Temperature	°C	-50 to +85		
Package Type	mm	S5 or S6	Ø3x40 or Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.2	7.5	1.3	8.0
90:10	0.6	10.8	0.8	12.0
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

S	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	4=S5 5=S6 7=S8 D=M1	1=G652 or Equivalent H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor
- EDFA Module

Specifications		Splitting Ratio: 50:50			
Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	780~2000		532~685	
Bandwidth	nm	±20		±10	
Insertion Loss	Max. dB	3.4	3.6	3.6	3.8
Excess Loss	Typ. dB	0.07	0.1	0.1	0.2
Uniformity	Max. dB	0.6	1.0	1.0	1.4
PDL	Max. dB	0.1	0.15	0.15	0.2
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S5 or S6	Ø3x40 or Ø3x54: for bare fiber		
		S8	Ø3x70: for 0.9mm loose tube		
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)							
	Premium (780~2000nm)		A grade (780~2000nm)		P grade (532~685nm)		A grade (532~685nm)	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6	3.6	3.6	3.8	3.8
60:40	2.5	4.4	2.8	4.8	2.8	4.8	3.1	5.0
70:30	1.8	5.6	2.0	6.1	2.0	6.1	2.4	6.2
80:20	1.2	7.5	1.3	8.0	1.3	8.0	1.8	8.0
90:10	0.6	10.8	0.8	12.0	0.8	12.0	1.3	11.0
95:5	0.4	14.6	0.5	18.4	0.5	18.4	1.1	14.5
96:4	0.3	16.0	0.4	19.0	0.4	19.0	1.05	15.0
97:3	0.3	17.5	0.4	19.5	0.4	19.5	0.95	16.5
98:2	0.2	19.0	0.3	20.0	0.3	20.0	0.9	18.0
99:1	0.2	21.5	0.3	22.0	0.3	22.0	0.9	21.0
99.5:0.5	0.2	23.0	0.3	24.0	0.3	24.0	0.9	24.0

## Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1490nm 6=1475nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm F=685nm E=650nm B=633nm C=532nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	4=S5 5=S6 7=S8 D=M1	1=G652 or Equivalent 5=980-20 6=H11060 7=H11060 FLEX 8=980-16 9=H1780C A=630-HP B=460-HP H=SM1950 L=Large mode area fiber	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UJC 8=SC/UJC 9=MU A=LC/PC B=SC/PC C=LC/UJC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) 405nm(450nm) Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Medical System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor
- Optogenetics Research

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	Premium
Port Configuration			1x2 or 2x2	
Central Wavelength	nm	405		450
Bandwidth	nm		±10	
Insertion Loss	Max. dB	5.6		3.8
Excess Loss	Typ. dB	2.0		0.6
Uniformity	Max. dB	0.6		1.4
PDL	Max. dB	0.1		0.2
Operating power	Max. W		5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S5 or S6	Ø3x40 or Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

All specifications are based on 1m fiber length, every 0.5m-length of fiber can cause 0.5dB IL additionally.

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Output Port 1 (405nm)	Output Port 2 (405nm)	Output Port 1 (450nm)	Output Port 2 (450nm)
50:50	5.6	5.6	3.8	3.8
60:40	4.2	6.2	3.1	5.0
70:30	3.5	7.3	2.4	6.2
80:20	3.0	9.1	1.8	8.0
90:10	2.5	12.2	1.3	11.0
95:5	2.3	15.2	1.1	14.5
96:4	2.2	16.0	1.05	15.0
97:3	2.15	17.5	0.95	16.5
98:2	2.1	19.0	0.9	18.0
99:1	2.1	23.0	0.9	21.0
99.5:0.5	2.0	25.0	0.9	24.0

## Ordering Information

<b>S</b>	<b>N</b>	<b>S</b>	<b>Wavelength</b> D=450nm Q=405nm S=Specify	<b>Structure</b> 1=1x2 2=2x2	<b>Splitting Ratio</b> 05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	<b>Grade</b> P=Premium	<b>Package</b> 4=S5 5=S6 7=S8 D=M1	<b>Fiber Type</b> B=460-HP C=405-HP	<b>Pigtail</b> S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	<b>Fiber Length</b> 0=0.5m 1=0.75m 2=1.0m S=Specify	<b>Connector</b> 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC
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Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x2(2x2) Single Mode Dual-Window Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	1310±40 and 1550±40	
Insertion Loss	Max. dB	3.6	3.9
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.8	1.2
PDL	Max. dB	0.15	0.20
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.6	3.6	3.9	3.9
60:40	2.7	4.7	2.9	5.0
70:30	1.9	6.0	2.1	6.4
80:20	1.2	7.9	1.4	8.5
90:10	0.6	11.3	0.8	12.7
95:5	0.4	15.2	0.5	18.9
98:2	0.3	19.8	0.4	21
99:1	0.3	23.5	0.4	24

## Ordering Information

D	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
0=1310&1550nm	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LQ/PC B=SC/PC C=LQ/UPC D=LQ/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1x2(2x2) Single Mode Triple-Window Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	1310±40 and 1490±20 and 1550±20	
Insertion Loss	Max. dB	3.6	3.9
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.8	1.2
PDL	Max. dB	0.15	0.20
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.6	3.6	3.9	3.9
60:40	2.7	4.7	2.9	5.0
70:30	1.9	6.0	2.1	6.4
80:20	1.2	7.9	1.4	8.5
90:10	0.6	11.3	0.8	12.7
95:5	0.4	15.2	0.5	18.9
98:2	0.3	19.8	0.4	21
99:1	0.3	23.5	0.4	24

## Ordering Information

T	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
G=1310& 1490& 1550nm	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Single Mode Ultra-Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- Ultra-Broadband
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network
- FTTx

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade	
Port Configuration		1x2 or 2x2		
Bandwidth	nm	1310±40 and 1450 to 1605		
Insertion Loss	Max. dB	3.6	4.0	
Excess Loss	Typ. dB	0.07	0.1	
Uniformity	Max. dB	0.8	1.2	
PDL	Max. dB	0.15	0.20	
Operating power	Max. W	5		
Operating Temperature	°C	-40 to +85		
Storage Temperature	°C	-50 to +85		
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table

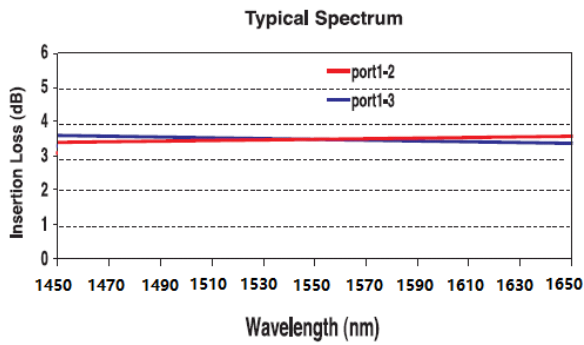
Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.6	3.6	4.0	4.0
60:40	2.7	4.8	2.9	5.1
70:30	2.0	6.2	2.2	6.6
80:20	1.3	8.0	1.5	8.5
90:10	0.6	11.5	0.8	12.9
95:5	0.4	15.6	0.5	19.2
98:2	0.3	20	0.4	21.5
99:1	0.3	24	0.4	24.6

## Ordering Information

U	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
M=1310 & 1450 to 1605nm	1=1x2 2=2x2	99=99:1 98=98:2 95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) 1310nm(1550nm) Single Mode Ultra-Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- OCT (Optical Coherence Tomography)
- Optical Power Distributor

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	A grade
Port Configuration			1x2 or 2x2	
Central Wavelength	nm		1550,1310	
Bandwidth	nm		± 100	
Insertion Loss	Max. dB		3.6	3.8
Excess Loss	Max. dB		0.15	0.18
Uniformity	Max. dB		0.7	1.0
PDL	Max. dB		0.20	0.23
Operating power	Max. W		5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

Note: All specifications exclude the water absorption region centered around 1383 nm.

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
75:25±3.5	1.6	6.8	2.0	6.9
90:10±2.5	0.7	11.4	0.8	12.0
99:1±0.6	0.2	24.1	0.3	25.0

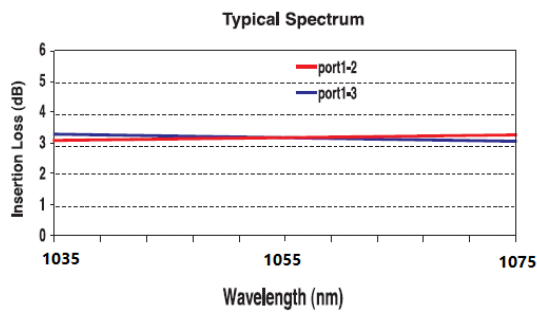
The other ratios are also available.

## Ordering Information

U	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm S=Specify	1=1x2 2=2x2	05=99:5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) 1055nm(1064nm) Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- OCT (Optical Coherence Tomography)
- Medical System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 50:50	
Parameter	Unit		Premium	A grade
Port Configuration			1x2 or 2x2	
Central Wavelength	nm		1064 or 1055	
Bandwidth	nm		± 20	
Ratio	%		50 ± 5	
Excess Loss	Max. dB		0.2	0.3
Uniformity	Max. dB		0.6	0.7
PDL	Max. dB		0.1	0.15
Operating power	Max. W		5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Wavelength Dependent Loss Conversion Table

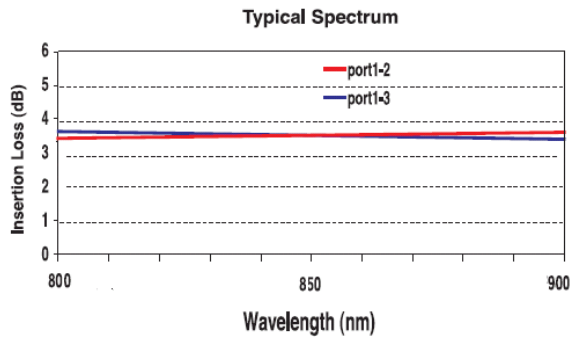
Splitting Ratio	WDL (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	0.2	0.2	0.25	0.25
70:30	0.4	0.6	0.5	0.7
95:5	0.2	0.6	0.3	0.7

## Ordering Information

S	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
Z=1055nm 8=1064nm S=Specify	1=1x2 2=2x2	05=99:50.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	5=980-20 6=Hi1060 8=980-16	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) 850nm (830/780nm) Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- OCT (Optical Coherence Tomography)
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Central Wavelength	nm	830, 850, 780	
Bandwidth	nm	± 50	
Insertion Loss	Max. dB	3.8	3.9
Excess Loss	Max. dB	0.3	0.4
Uniformity	Max. dB	1.0	1.2
PDL	Max. dB	0.20	0.25
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
75:25 ±3.75	1.8	7.0	2.0	6.1
90:10 ±3	0.9	11.8	0.8	12.0
99:1 ±0.3	0.4	24.3	0.3	22.0

The other ratios are also available.

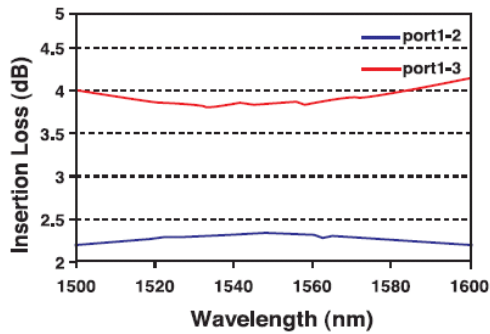
## Ordering Information

S	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
A=850nm K=830nm L=780nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	9=H1780C	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Ultra-Low PDL Broadband Splitter

**Typical Spectrum  
(Splitting Ratio 60:40)**



## Product Features

- Ultra-Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade	
Port Configuration		1x2 or 2x2		
Bandwidth	nm	±40		
Insertion Loss	Max. dB	3.4	3.6	
Excess Loss	Typ. dB	0.07	0.1	
Uniformity	Max. dB	0.6	1.0	
PDL	Max. dB	0.05	0.07	
Operating power	Max. W	5		
Operating Temperature	°C	-40 to +85		
Storage Temperature	°C	-50 to +85		
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.2	7.5	1.3	8.0
90:10	0.6	10.8	0.8	12

## Ordering Information

L	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm P=2000nm S=Specify	1=1x2 2=2x2	90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent H=SM 1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x2(2x2) Ultra-Low PDL Narrowband Splitter



## Product Features

- Ultra-Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 50:50			
Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x2 or 2x2			
Central Wavelength	nm	1310~2000		780~1064	
Bandwidth	nm	±10		±10	
Insertion Loss	Max. dB	3.4	3.6	3.4	3.6
Excess Loss	Typ. dB	0.07	0.1	0.07	0.1
Uniformity	Max. dB	0.6	1.0	0.6	1.0
PDL	Max. dB	0.03	0.05	0.06	0.08
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S6	Ø3x54: for bare fiber		
		S8	Ø3x70: for 0.9mm loose tube		
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.2	7.5	1.3	8.0
90:10	0.6	10.8	0.8	12
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0

## Ordering Information

L	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm	1=1x2	99=99:1	P=Premium	5=S6	1=G652 or	S=250µm	0=0.5m	0=None			
2=1590nm	2=2x2	98=98:2	A=A grade	7=S8	Equivalent	bare fiber	1=0.75m	1=FC/PC			
3=1570nm		97=97:3		D=M1	5=980-20	M=0.9mm	2=1.0m	2=FC/SPC			
4=1550nm		96=96:4			6=H11060	loose tube	3=1.5m	3=FC/APC			
5=1480nm		95=95:5			7=H11060 FLEX	L=3mm cable	4=2.0m	4=SC/SPC			
6=1475nm		90=90:10			8=980-16	R=2mm cable	S=Specify	5=SC/APC			
7=1310nm		80=80:20			9=H1780C			6=ST			
8=1064nm		70=70:30			H=SM1950			7=FC/UPC			
9=980nm		60=60:40			L=Large mode			8=SC/UPC			
A=850nm		50=50:50			area fiber			9=MU			
L=780nm								A=LC/PC			
P=2000nm								B=SC/PC			
S=Specify								C=LC/UPC			
								D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.



## 1x2(2x2) Ultra-Low Splitting Ratio Taps



### Product Features

- Low Excess Loss
- Low Insertion Loss
- High Power Handling
- Stable and High Reliable

### Product Applications

- High Power Optical Amplifiers
- Optical Testing Systems
- Optical Fiber Sensors
- Fiber Lasers
- High Power Monitors

Specifications		Tap Port Ratio: 0.1%, 0.01%, 0.001%	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±20	
Insertion Loss for Through Port	Max. dB	0.1	
Insertion Loss for 0.1% Tap Port	dB	30±3	30±4
Insertion Loss for 0.01% Tap Port	dB	40±4	40±5
Insertion Loss for 0.001% Tap Port	dB	50±5	50±6
Excess Loss	Typ. dB	0.03	
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

### Ordering Information

L	S	T									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm P=2000nm S=Specify	1=1x2 2=2x2	01=0.1% 02=0.01% 03=0.001%	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 9=HI780C H=SM 1950 L=Large mode area fiber	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# Fused SM Fiber Attenuator



## Product Features

- Low PDL
- Low Insertion Loss
- High Power Handling
- Telcordia GR-1221 Compliant Test

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Power Monitoring
- EDFA Module

Specifications						
Parameter	Unit		Premium	A grade	Premium	A grade
Port Configuration			1x1			
Central Wavelength	nm		780, 830, 980, 1064		1310~2000	
Bandwidth	nm		±10		±20	
Excess Loss	Typ.	dB	0.5	0.6	0.4	0.6
Excess Loss	Max.	dB	0.7	0.8	0.6	0.8
Operating power	Max.	W	5			
Operating Temperature		°C	-40 to +85			
Storage Temperature		°C	-50 to +85			
Package Type	mm	S6	Ø3x54: for bare fiber			
		S8	Ø3x70: for 0.9mm loose tube			
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable			

## Insertion Loss and Its Tolerance & PDL

IL (dB)	IL Tolerance (dB)		PDL (dB)			
	Premium	A grade	780nm, 830nm, 980nm, 1064nm		1310~2000nm	
			Premium	A grade	Premium	A grade
1	±0.1	±0.2	0.15	0.2	0.1	0.15
2	±0.2	±0.3	0.15	0.2	0.1	0.15
3	±0.3	±0.4	0.15	0.2	0.1	0.15
5	±0.7	±0.8	0.15	0.2	0.1	0.15
10	±1.0	±1.2	0.15	0.2	0.1	0.15
15	±1.8	±2.2	0.15	0.2	0.1	0.15
20	±2.5	±3.0	N/A	N/A	N/A	N/A
30	±3.0	±4.0	N/A	N/A	N/A	N/A
40	±4.0	±5.0	N/A	N/A	N/A	N/A

## Ordering Information

F	O	A										
Wavelength	Insertion Loss	Bandwidth	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector				
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm K=830nm L=780nm P=2000nm S=Specify	01=1.0dB 02=2.0dB 03=3.0dB 05=5.0dB 10=10dB 15=15dB 20=20dB 30=30dB 40=40dB	N=Narrowband B=Broadband	P=Premium A=A grade	5=S6 7=S8 D=M1	1=G652 or Equivalent 5=980-20 6=H11060 7=H11060 FLEX 8=980-16 9=H1780C H=SM1950 L=Large mode area fiber	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.75m 1=1.0m 2=1.5m 3=2.0m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# Star & Tree Single Mode Dual-Window Broadband Splitter Module



## Product Features

- Low Excess Loss
- Low Insertion Loss
- Low PDL
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network
- Optical Power Distributor

## Specifications

Parameter		Unit	Nx4(N=1,2,4)		Nx8(N=1,2,8)		Nx16(N=1,2)		Nx32(N=1,2)	
Operating Wavelength			1310±40 and 1550±40							
Grade		nm	P	A	P	A	P	A	P	A
Insertion Loss	Max.	dB	7.2	7.6	10.7	11.7	14.5	15.5	18.5	19.4
Excess Loss	Typ.	dB	0.3	0.5	0.5	0.7	0.8	1.2	1.0	1.4
Uniformity	Max.	dB	1.4	1.6	2.1	2.5	2.8	3.4	3.5	4.1
PDL	Max.	dB	0.3		0.4		0.5		0.6	
Operating power	Max.	W	5							
Operating Temperature		°C	-20 to +85							
Storage Temperature		°C	-50 to +85							
Package Type		mm	M7=18x114x140		M8=43x322x480		M8=43x322x480			
			M10=29x130x132		M11=58x130x132					
			M5=10x80x100: for 0.9mm loose tube or 3mm cable				M6=18x115x141: for 0.9mm loose tube or 3mm cable			

## Ordering Information

S	D	M									
			Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector Or Flange
			0=1310nm&1550nm	14=1x4 24=2x4 44=4x4 18=1x8 28=2x8 88=8x8 A6=1x16 B6=2x16 E2=1x32 F2=2x32	0=Even	P=Premium A=A grade	H=M5 I=M6 J=M7 K=M8 M=M10 N=M11	1=G652 or Equivalent	M=0.9mm loose tube L=3mm cable F=Adapting Flange	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify N=None	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/U/PC 8=SC/U/PC 9=MU A=LC/PC B=SC/PC C=LC/U/PC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# Star & Tree Single Mode Broadband Splitter Module



## Product Features

- Ultra-Low PDL
- Low-Excess Loss
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network
- Optical Power Distributor

## Specifications

Parameter		Unit	Nx4(N=1,2,4)			Nx8(N=1,2,8)			Nx16(N=1,2)			Nx32(N=1,2)		
Bandwidth		nm	± 40											
Grade		nm	U	P	A	U	P	A	U	P	A	U	P	A
Insertion Loss	Max.	dB	6.8	6.8	7.2	10.2	10.2	11.3	13.6	13.6	15.1	17.5	17.5	18.5
Excess Loss	Typ.	dB	0.3	0.3	0.5	0.5	0.5	0.7	0.8	0.8	1.0	1.0	1.0	1.4
Uniformity	Max.	dB	0.7	0.7	0.9	1.2	1.2	1.5	1.6	1.6	2.0	2.0	2.0	2.5
PDL	Max.	dB	0.02	0.2		0.03	0.3		0.04	0.4		0.05	0.5	
Operating power	Max.	W	5											
Operating Temperature		°C	-20 to +85											
Storage Temperature		°C	-50 to +85											
Package Type		mm	M7=18x114x140			M8=43x322x480			M8=43x322x480					
			M10=29x130x132			M11=58x130x132								
			M5=10x80x100: for 0.9mm loose tube or 3mm cable						M6=18x115x141: for 0.9mm loose tube or 3mm cable					

## Ordering Information

S	B	M									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm	14=1x4	0=Even	P=Premium	H=M5	1=G652 or	M=0.9mm	0=0.5m	Or Flange			
5=1480nm	24=2x4		A=A grade	L=M6	Equivalent	loose tube	1=0.75m	0=None			
7=1310nm	44=4x4		U=Ultra-Low	J=M7	H=SM1950	L=3mm Cable	2=1.0m	1=FC/PC			
P=2000nm	18=1x8		PDL	K=M8		F=Adapting Flange	3=1.5m	2=FC/SPC			
S=Specify	28=2x8			M=M10			4=2.0m	3=FC/APC			
	88=8x8			N=M11			S=Specify	4=SC/SPC			
	A6=1x16						N=None	5=SC/APC			
	B6=2x16							6=ST			
	E2=1x32							7=FC/UPC			
	F2=2x32							8=SC/UPC			
								9=MU			
								A=LC/PC			
								B=SC/PC			
								C=LC/UPC			
								D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# Star & Tree Single Mode Narrowband Splitter Module



## Product Features

- Ultra-Low PDL
- Low-Excess Loss
- Low Insertion Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Passive Optical Network
- Optical Power Distributor

## Specifications

Parameter		Unit	Nx4(N=1,2,4)		Nx8(N=1,2,8)		Nx16(N=1,2)		Nx32(N=1,2)	
Bandwidth		nm	± 10							
Grade		nm	P	A	P	A	P	A	P	A
Insertion Loss	Max.	dB	6.8	7.2	10.2	11.3	13.6	15.1	17.5	18.5
	Typ.	dB	0.3	0.5	0.5	0.7	0.8	1.0	1.0	1.4
Excess Loss	Max.	dB	0.7	0.9	1.2	1.5	1.6	2.0	2.0	2.5
	Typ.	dB	0.1		0.2		0.25		0.3	
PDL	Max.	dB	0.1		0.2		0.25		0.3	
	Typ.	dB	5							
Operating power		W	5							
Operating Temperature		°C	-20 to +85							
Storage Temperature		°C	-50 to +85							
Package Type	mm		M7=18x114x140		M8=43x322x480		M8=43x322x480			
			M10=29x130x132		M11=58x130x132					
			M5=10x80x100: for 0.9mm loose tube or 3mm cable				M6=18x115x141: for 0.9mm loose tube or 3mm cable			

## Ordering Information

S	N	M									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm	14=1x4	0=Even	P=Premium	H=M5	1=G652 or	M=0.9mm	0=0.5m	Or Flange			
5=1480nm	24=2x4		A=A grade	I=M6	Equivalent	loose tube	1=0.75m	0=None			
7=1310nm	44=4x4			J=M7	5=980-20	L=3mm Cable	2=1.0m	1=FC/PC			
8=1064nm	18=1x8			K=M8	6=HI1060	F=Adapting Flange	3=1.5m	2=FC/SPC			
9=980nm	28=2x8			M=M10	7=HI1060 FLEX		4=2.0m	3=FC/APC			
A=850nm	88=8x8			N=M11	8=980-16		S=Specify	4=SC/SPC			
K=830nm	A6=1x16				9=HI780C		N=None	5=SC/APC			
L=780nm	B6=2x16				H=SM1950			6=ST			
P=2000nm	E2=1x32				L=Large mode			7=FC/UPC			
S=Specify	F2=2x32				area fiber			8=SC/UPC			
								9=MU			
								A=LC/PC			
								B=SC/PC			
								C=LC/UPC			
								D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# SM Fiber Patch Cords



## Product Features

- Low Insertion Loss
- High Power Handling
- Excellent Return Loss
- Telcordia GR-326 Compliant

## Product Applications

- Power Jumps
- Testing Systems
- SM Fiber Sense Systems
- Optical SM Modules

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Center Wavelength(nm)	nm	405, 532, 633, 780, 850, 980, 1064		1310, 1475, 1480, 1550, 1570, 1590, 1625, 2000	
Insertion Loss	Max. dB	0.60	0.80	0.30	0.40
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			



## Ordering Information

S	F	P	C					O	O			
Wavelength	Grade	Cable Type	Fiber Type							Cable Length	Connector at Port 1	Connector at port 2
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm A=850nm L=780nm B=633nm C=532nm Q=405nm S=Specify	P=Premium A=A grade	S=250µm bare fiber M=0.9mm loose tube L=3mm cable	1=G652 or Equivalent 5=980-20 6=H11060 7=H11060 FLEX 8=980-16 9=H1780C A=630-HP B=460-HP C=405-HP H=SM1950							1=1.0m 2=2.0m 3=3.0m 4=4.0m 5=5.0m S=Specify	1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC	0= None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



**Comcore's Monolithically-Fused  
Single Mode Fiber Splitters/Mixers  
Are Offering You Endless Opportunities**





# 1x3 Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 33:33:33	
Parameter	Unit	Premium	A grade
Port Configuration			1x3
Bandwidth	nm		±40
Insertion Loss	Max. dB	5.4	5.7
Excess Loss	Typ. dB	0.15	0.2
PDL	Max. dB	0.1	0.15
Operating power	Max. W		5
Operating Temperature	°C		-40 to +85
Storage Temperature	°C		-50 to +85
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table only for +/-20nm Bandwidth

Splitting Ratio	Max Insertion Loss (dB)					
	Premium Grade			A Grade		
	Output Port1	Output Port2	Output Port3	Output Port1	Output Port2	Output Port3
49:2:49	3.6	16	3.6	3.8	14	3.8
45:10:45	4.0	11	4.0	4.2	11.5	4.2
40:20:40	4.5	8	4.5	4.7	8.4	4.7
35:30:35	5.0	5.8	5.0	5.2	6.1	5.2
33:33:33	5.3	5.3	5.3	5.6	5.6	5.6
30:40:30	5.8	4.5	5.8	6.1	4.7	6.1
10:80:10	11	1.2	11	12	1.4	12
5:90:5	15	0.7	15	16	0.9	16
2:96:2	19	0.4	19	20	0.5	20
1:98:1	23	0.3	23	24	0.4	24

## Ordering Information

S	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	3=1x3	98=1:98:1 96=2:96:2 90=5:90:5 ... 33=33:33:33 20=40:20:40 10=45:10:45 02=49:2:49	P=Premium A=A grade	5=S6 7=S8 E=M2	1=G652 or Equivalent H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x3 Single Mode Dual-window Broadband Splitter



## Product Features

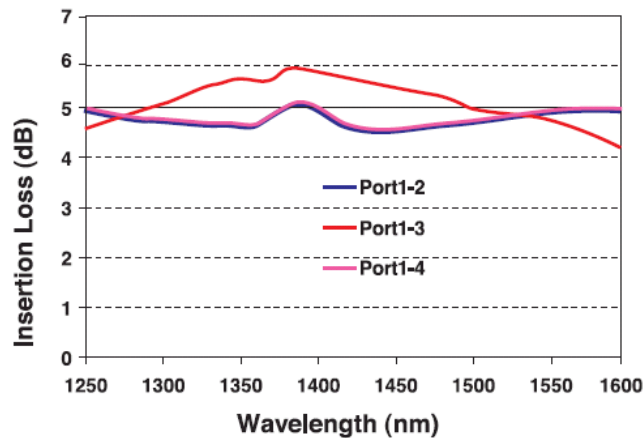
- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 33:33:33	
Parameter	Unit	Premium	A grade
Port Configuration		1x3	
Bandwidth	nm	1310±40 and 1550±40	
Insertion Loss	Max. dB	5.6	6.0
Excess Loss	Typ. dB	0.15	0.2
Uniformity	Max. dB	1.2	1.6
PDL	Max. dB	0.25	0.30
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

D	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
0=1310&1550nm	3=1x3	33=33:33:33	P=Premium A=A grade	5=S6 7=S8 E=M2	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x3 Ultra-Low PDL Narrowband Splitter



## Product Features

- Ultra-Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 33:33:33	
Parameter	Unit	Premium	A grade
Port Configuration			1x3
Bandwidth	nm		±10
Insertion Loss	Max. dB	5.4	5.7
Excess Loss	Typ. dB	0.15	0.2
Uniformity	Max. dB	0.8	1.2
PDL	Max. dB	0.03	0.07
Operating power	Max. W		5
Operating Temperature	°C		-40 to +85
Storage Temperature	°C		-50 to +85
Package Type	mm	S6	Ø3x54: for bare fiber
		S8	Ø3x70: for 0.9mm loose tube
		M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table

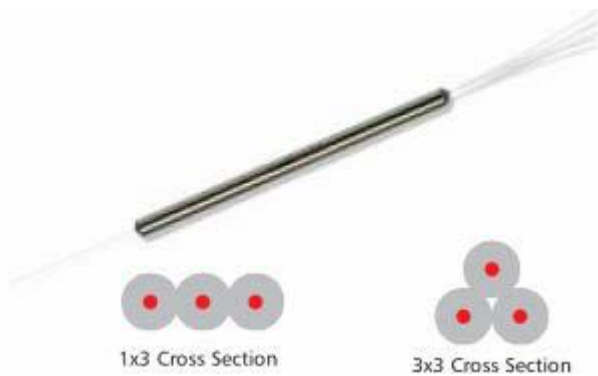
Splitting Ratio	Maximum Insertion Loss(dB)					
	Premium			A grade		
	Output Port 1	Output Port 2	Output Port 3	Output Port 1	Output Port 2	Output Port 3
40:20:40	4.5	7.8	4.5	4.8	8.2	4.8
35:30:35	5.2	5.7	5.2	5.4	6.0	5.4
33:33:33	5.4	5.4	5.4	5.7	5.7	5.7
30:40:30	5.7	4.4	5.7	6.0	4.7	6.0
25:50:25	6.6	3.4	6.6	7.0	3.6	7.0
20:60:20	7.4	2.8	7.4	7.7	3.0	7.7
15:70:15	9.0	2.1	9.0	9.4	2.4	9.4
10:80:10	10.8	1.1	10.8	11.2	1.3	11.2
5:90:5	14.7	0.65	14.7	15	0.8	15
2.5:95:2.5	17.8	0.40	17.8	18.1	0.5	18.1
1:98:1	21.5	0.25	21.5	22	0.3	22
0.5:99:0.5	24.5	0.25	24.5	25	0.3	25

## Ordering Information

L	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	3=1x3	99=0.5:99:0.5 98=1:98:1 90=5:90:5 ... 33=33:33:33 20=40:20:40	P=Premium A=A grade	5=S6 7=S8 E=M2	1=G652 or Equivalent H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3(3x3) 80µm Fiber Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

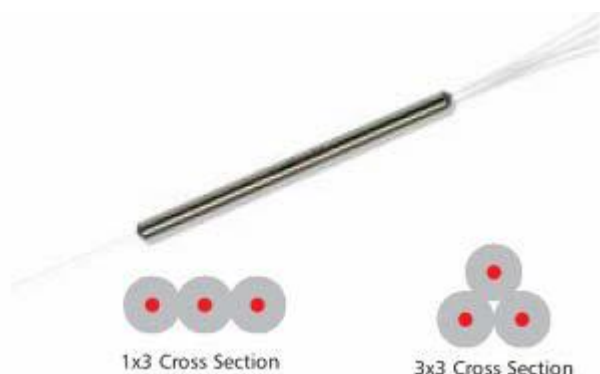
Specifications		Splitting Ratio: 33:33:33			
Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x3		3x3	
Bandwidth	nm	±20			
Insertion Loss	Max. dB	5.4	5.7	6.0	6.5
Excess Loss	Typ. dB	0.15	0.2	0.3	0.4
Uniformity	Max. dB	0.8	1.2	1.2	1.6
PDL	Max. dB	0.15	0.2	0.20	0.25
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S4	Ø3x35: for bare fiber		
		S6	Ø3x54: for 0.9mm loose tube		
		M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm A=850nm K=830nm L=780nm P=2000nm S=Specify	3=1x3 A=3x3	33=33:33:33	P=Premium A=A grade	3=S4 5=S6 E=M2	T=80/165µm G652 core diameter 8µm Y=80/165µm G652 core diameter 6µm D=80/165µm 980-20	F=165µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# 1x3(3x3) Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 33:33:33			
Parameter	Unit	Premium	A grade	Premium	A grade
Port Configuration		1x3		3x3	
Bandwidth	nm	±20			
Insertion Loss	Max. dB	5.4	5.7	6.0	6.5
Excess Loss	Typ. dB	0.15	0.2	0.3	0.4
Uniformity	Max. dB	0.8	1.2	1.2	1.6
PDL	Max. dB	0.05	0.1	0.15	0.2
Operating power	Max. W	5			
Operating Temperature	°C	-40 to +85			
Storage Temperature	°C	-50 to +85			
Package Type	mm	S6	Ø3x54: for bare fiber		
		S8	Ø3x70: for 0.9mm loose tube		
		M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Splitting Ratio & Insertion Loss Conversion Table (1x3 Structure Only)

Splitting Ratio	Maximum Insertion Loss(dB)					
	Premium			A grade		
	Output Port 1	Output Port 2	Output Port 3	Output Port 1	Output Port 2	Output Port 3
40:20:40	4.5	7.8	4.5	4.8	8.2	4.8
35:30:35	5.2	5.7	5.2	5.4	6.0	5.4
33:33:33	5.4	5.4	5.4	5.7	5.7	5.7
30:40:30	5.7	4.4	5.7	6.0	4.7	6.0
25:50:25	6.6	3.4	6.6	7.0	3.6	7.0
20:60:20	7.4	2.8	7.4	7.7	3.0	7.7
15:70:15	9.0	2.1	9.0	9.4	2.4	9.4
10:80:10	10.8	1.1	10.8	11.2	1.3	11.2
5:90:5	14.7	0.65	14.7	15	0.8	15
2.5:95:2.5	17.8	0.40	17.8	18.1	0.5	18.1
1:98:1	21.5	0.25	21.5	22	0.3	22
0.5:99:0.5	24.5	0.25	24.5	25	0.3	25

## Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm	3=1x3	99=0.5:99:0.5	P=Premium	5=S6	1=G652 or	S=250µm	0=0.5m	0=None			
2=1590nm	A=3x3	98=1:98:1	A=A grade	7=S8	Equivalent	bare fiber	1=0.75m	1=FC/PC			
3=1570nm		90=5:90:5		E=M2	5=980-20	M=0.9mm	2=1.0m	2=FC/SPC			
4=1550nm		...			6=HI1060	loose tube	3=1.5m	3=FC/APC			
5=1480nm		33=33:33:33			7=HI1060 FLEX	L=3mm cable	4=2.0m	4=SC/SPC			
6=1475nm		20=40:20:40			8=980-16	R=2mm cable	S=Specify	5=SC/APC			
7=1310nm					9=HI780C			6=ST			
8=1064nm					H=SM1950			7=FC/UPC			
9=980nm					A=Large mode			8=SC/UPC			
A=850nm					area fiber			9=MU			
K=830nm								A=LC/PC			
L=780nm								B=SC/PC			
P=2000nm								C=LC/UPC			
S=Specify								D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# 1x4 Single Mode Broadband Splitter



## Product Features

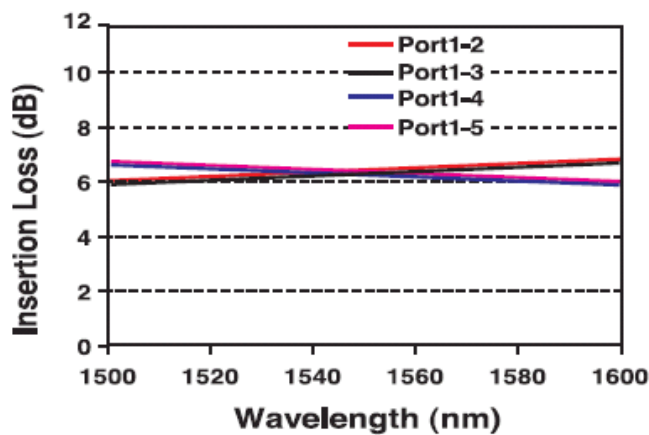
- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 25:25:25:25	
Parameter	Unit	Premium	A grade
Port Configuration		1x4	
Bandwidth	nm	±40	
Insertion Loss	Max. dB	7.0	7.5
Excess Loss	Typ. dB	0.2	0.3
Uniformity	Max. dB	1.2	1.7
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber
		S12	Ø4x70: for 0.9mm loose tube
		M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

S	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	4=1x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	1=G652 or Equivalent H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x4 Single Mode Dual-Window Broadband Splitter



## Product Features

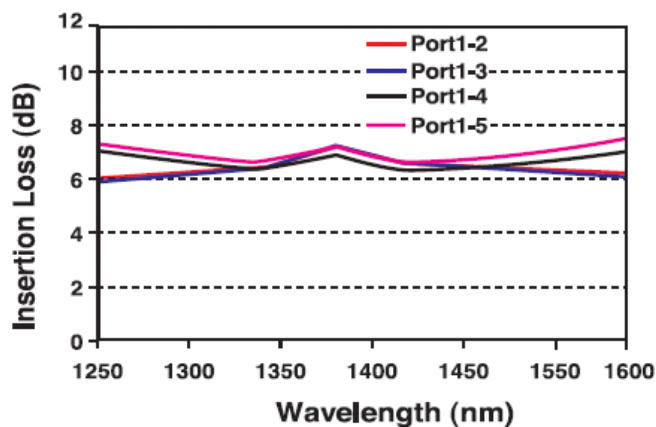
- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 25:25:25:25	
Parameter	Unit	Premium	A grade
Port Configuration		1x4	
Bandwidth	nm	1310±40 and 1550±40	
Insertion Loss	Max. dB	7.5	7.9
Excess Loss	Typ. dB	0.4	0.6
Uniformity	Max. dB	1.4	2.0
PDL	Max. dB	0.25	0.30
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber
		S12	Ø4x70: for 0.9mm loose tube
		M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable

## Typical Spectrum



## Ordering Information

D	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
0=1310&1550nm	4=1x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	1=G652 or Equivalent	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1x4 Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications		Splitting Ratio: 25:25:25:25	
Parameter	Unit	Premium	A grade
Port Configuration		1x4	
Bandwidth	nm	±10	
Insertion Loss	Max. dB	6.7	7.2
Excess Loss	Typ. dB	0.2	0.3
Uniformity	Max. dB	1.0	1.4
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber
		S12	Ø4x70: for 0.9mm loose tube
		M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable

## Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm A=850nm L=780nm P=2000nm S=Specify	4=1x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	1=G652 or Equivalent 5=980-20 6=H11060 7=H11060 FLEX 8=980-16 H=SM1950 9=H1780C H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. All data are measured at central wavelength at room temperature.

# 1x5 Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 20:20:20:20:20	
Parameter		Unit	Premium	A grade
Port Configuration			1x5	
Bandwidth		nm	±20	
Insertion Loss	Max.	dB	8.0	8.5
Excess Loss	Typ.	dB	0.3	0.5
Uniformity	Max.	dB	1.2	1.7
PDL	Max.	dB	0.1	0.15
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S11	Ø4x60: for bare fiber
			S12	Ø4x70: for 0.9mm loose tube

## Ordering Information

S	B	S									
			Wavelength 4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	Structure E=1x5	Splitting Ratio 20=20:20:20:20:20	Grade P=Premium A=A grade	Package A=S11 B=S12	Fiber Type 1=G652 or Equivalent H=SM1950	Pigtail S=250µm bare fiber M=0.9mm loose tube	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x6 Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- FTTx and PONs
- Optical Power Distributor

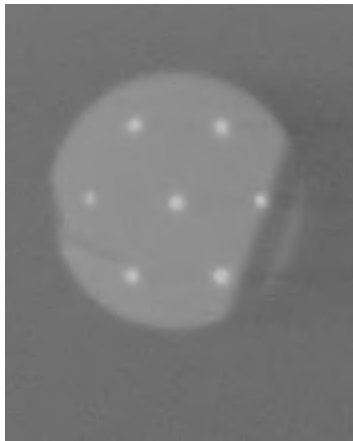
Specifications			Splitting Ratio:		Even
Parameter		Unit	Premium	A grade	
Port Configuration			1x6		
Bandwidth		nm	±40		
Insertion Loss	Max.	dB	9.2	9.8	
Excess Loss	Typ.	dB	0.4	0.7	
PDL	Max.	dB	0.15	0.25	
Operating power	Max.	W	5		
Operating Temperature		°C	-40 to +85		
Storage Temperature		°C	-50 to +85		
Package Type		mm	S12	Ø4x70 for bare fiber	

## Ordering Information

S	B	S			0	0						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector				
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	6=1x6	00= Even	P=Premium A=A grade	B=S12	1=G652 or Equivalent H=SM1950	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x7 Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- FTTx and PONs
- Optical Power Distributor

Specifications			Splitting Ratio: Even	
Parameter	Unit		Premium	A grade
Port Configuration			1x7	
Bandwidth	nm		±40	
Insertion Loss	Max.	dB	10	10.8
Excess Loss	Typ.	dB	0.4	0.7
PDL	Max.	dB	0.2	0.25
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm		S12	Ø4x70 for bare fiber

## Ordering Information

S	B	S			O	O						
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector				
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	7=1x7	00= Even	P=Premium A=A grade	B=S12	1=G652 or Equivalent H=SM1950	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x8 Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: even	
Parameter	Unit		Premium	A grade
Port Configuration			1x8	
Bandwidth	nm		±40	
Insertion Loss	Max.	dB	11.2	12
Excess Loss	Typ.	dB	0.4	0.6
Uniformity	Max.	dB	2.0	2.5
PDL	Max.	dB	0.2	0.3
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber	

## Ordering Information

S	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 5=1480nm 7=1310nm P=2000nm S=Specify	8=1x8	00=Even	P=Premium A=A grade	A=S11	1=G652 or Equivalent H=SM1950	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# 1x8 Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: even	
Parameter		Unit	Premium	A grade
Port Configuration			1x8	
Bandwidth		nm	±10	
Insertion Loss	Max.	dB	10.8	11.6
Excess Loss	Typ.	dB	0.4	0.6
Uniformity	Max.	dB	2.0	2.5
PDL	Max.	dB	0.2	0.3
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S11	Ø4x60: for bare fiber

## Ordering Information

S	N	S										
			Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector	
			1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm A=850nm L=780nm P=2000nm S=Specify	8=1x8	00=Even	P=Premium A=A grade	A=S11	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 9=HI780C H=SM1950 A=Large mode area fiber	S=250µm bare fiber	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None	

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

## 2x4 Single Mode Narrowband Splitter



### Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

### Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 25:25:25:25	
Parameter		Unit	Premium	A grade
Port Configuration			2x4	
Bandwidth		nm	±10	
Insertion Loss	Max.	dB	7.0	7.6
Excess Loss	Typ.	dB	0.3	0.4
Uniformity	Max.	dB	1.3	1.7
PDL	Max.	dB	0.15	0.2
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S11	Ø4x60: for bare fiber
			S12	Ø4x70: for 0.9mm loose tube
			M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable

### Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm 9=980nm A=850nm L=780nm P=2000nm S=Specify	5=2x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 9=HI780C H=SM1950 A=Large mode area fiber	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



# 4x4 Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications


- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 25:25:25:25	
Parameter		Unit	Premium	A grade
Port Configuration			4x4	
Bandwidth		nm	±10	
Insertion Loss	Max.	dB	7.5	8.0
Excess Loss	Typ.	dB	0.4	0.5
Uniformity	Max.	dB	1.7	2.2
PDL	Max.	dB	0.2	0.25
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S11	Ø4x60: for bare fiber
			S12	Ø4x70: for 0.9mm loose tube
			M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable




## Ordering Information

S	N	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm L=780nm P=2000nm S=Specify	B=4x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 9=HI780C H=SM1950 A=Large mode area fiber	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.



**Comcore's Versatile Multimode  
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Find For Your Low-Cost Solutions**



# 1x2(2x2) 105/125µm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- Optical Sensor
- Access Network

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	1x2 or 2x2		
Grade		P	A	
Central Wavelength	nm	2000, 1550, 1310, 850		
Bandwidth	nm	±20		
Insertion Loss	Max.	dB	3.6	3.8
Excess Loss	Typ.	dB	0.2	0.3
Uniformity	Max.	dB	0.5	0.8
Operating power	Max.	W	5	
Operating Temperature	°C		-40 to +85	
Storage Temperature	°C		-50 to +85	
Package Type	mm	S6	Ø3x54: for bare fiber	
		S8	Ø3x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table for 2000, 1550, 1310, 850nm

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
60:40	2.6	4.6	3.0	5.0
70:30	1.9	5.9	2.3	6.3
80:20	1.2	7.8	1.7	8.3
90:10	0.7	11.2	1.2	12
95:5	0.5	15	0.8	16

## Ordering Information

M	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	1=1x2 2=2x2	95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	5=S6 7=S8 D=M1	4=105/125µm (NA=0.15) J=105/125µm (NA=0.22)	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x2(2x2) 200/220µm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Fiber Laser
- Optical Sensor
- Access Network

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	1x2 or 2x2		
Grade		Premium	A grade	
Central Wavelength	nm	2000, 1550, 1310, 850		
Bandwidth	nm	±20		
Insertion Loss	Max. dB	4.5	4.7	
Excess Loss	Max. dB	1.5	1.8	
Uniformity	Max. dB	0.5	0.6	
Operating power	Max. W	5		
Operating Temperature	°C	-40 to +85		
Storage Temperature	°C	-50 to +85		
Package Type	mm	S11	Ø4x60: for bare fiber	
		S12	Ø4x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table for 2000, 1550, 1310, 850nm

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
60:40	2.6	4.6	3.0	5.0
70:30	1.9	5.9	2.3	6.3
80:20	1.2	7.8	1.7	8.3
90:10	0.7	11.2	1.2	12
95:5	0.5	15	0.8	16

## Ordering Information

M	B	S									
			Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector
			4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	1=1x2 2=2x2	95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	A=S11 B=S12 D=M1	K=200/220µm (NA=0.22)	S=500µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x2(2x2) 400/440µm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- Fiber Laser
- Optical Sensor
- Access Network

Specifications			Splitting Ratio: 50:50	
Parameter	Unit	1x2 or 2x2		
Grade		Premium	A grade	
Central Wavelength	nm	2000, 1550, 1310, 850		
Bandwidth	nm	±20		
Insertion Loss	Max. dB	4.5	4.7	
Excess Loss	Max. dB	1.5	1.8	
Uniformity	Max. dB	0.5	0.6	
Operating power	Max. W	5		
Operating Temperature	°C	-40 to +85		
Storage Temperature	°C	-50 to +85		
Package Type	mm	S11	Ø4x60: for bare fiber	
		S12	Ø4x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table for 2000, 1550, 1310, 850nm

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
60:40	2.6	4.6	3.0	5.0
70:30	1.9	5.9	2.3	6.3
80:20	1.2	7.8	1.7	8.3
90:10	0.7	11.2	1.2	12
95:5	0.5	15	0.8	16

## Ordering Information

M	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	1=1x2 2=2x2	95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	P=Premium A=A grade	A=S11 B=S12 D=M1	Q=400/440µm (NA=0.22)	S=730µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x2(2x2) 50/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Telcordia 1221 Compliance
- Very Compact Size

## Product Applications

- Optical Communication System
- LAN
- Optical Sensor
- Access Network

Specifications			Splitting Ratio: 50:50					
Parameter		Unit	1x2 or 2x2					
Grade			U	P	A	U	P	A
Central Wavelength		nm	2000, 1550, 1310			850		
Bandwidth		nm	±20					
Insertion Loss	Max.	dB	3.5	4.0	4.5	3.7	5.0	5.5
Excess Loss	Typ.	dB	0.3	0.7	1.0	0.6	0.8	1.0
Uniformity	Max.	dB	0.5	0.5	0.8	0.5	0.5	0.8
Operating power	Max.	W	5					
Operating Temperature		°C	-40 to +85					
Storage Temperature		°C	-50 to +85					
Package Type		mm	S6	Ø3x54: for bare fiber				
			S8	Ø3x70: for 0.9mm loose tube				
			M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable				

## Splitting Ratio & Insertion Loss Conversion Table for 2000, 1550, 1310 ± 20nm

Splitting Ratio	Maximum Insertion Loss (dB)					
	Ultra-Premium		Premium		A grade	
	Output Port1	Output Port2	Output Port1	Output Port2	Output Port1	Output Port2
60:40	2.6	4.6	3.2	5.0	3.7	5.6
70:30	1.9	5.9	2.4	6.3	2.9	7.0
80:20	1.2	7.8	1.7	8.2	2.3	9.0
90:10	0.7	11.2	1.2	12	1.8	12.8
95:5	0.5	15	0.8	16	1.5	16.8

## Splitting Ratio & Insertion Loss Conversion Table for 850 ± 20nm

Splitting Ratio	Maximum Insertion Loss (dB)					
	Ultra-Premium		Premium		A grade	
	Output Port1	Output Port2	Output Port1	Output Port2	Output Port1	Output Port2
60:40	3.0	5.0	4.0	6.0	4.7	6.6
70:30	2.4	6.2	3.3	7.3	3.9	8.0
80:20	1.7	8.1	2.3	9.2	3.2	10.0
90:10	1.2	11.4	2.0	12.5	2.7	13.5
95:5	1.0	14.3	1.6	16.5	2.4	17.5

## Ordering Information

M	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	1=1x2 2=2x2	95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	U=Ultra-Premium P=Premium A=A grade	5=S6 7=S8 D=M1	2=50/125μm	S=250μm Bare fiber M=0.9mm Loose tube L=3mm Cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.



# 1x2(2x2) 62.5/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Telcordia 1221 Compliance
- Very Compact Size

## Product Applications

- Optical Communication System
- LAN
- Optical Sensor
- Access Network

Specifications			Splitting Ratio: 50:50				
Parameter		Unit	1x2 or 2x2				
Grade			P	A	U	P	A
Central Wavelength		nm	2000, 1550, 1310			850	
Bandwidth		nm	±20				
Insertion Loss	Max.	dB	3.5	3.9	3.7	4.3	4.7
Excess Loss	Typ.	dB	0.3	0.5	0.6	0.8	1.0
Uniformity	Max.	dB	0.5	0.8	0.5	0.5	0.8
Operating power	Max.	W	5				
Operating Temperature		°C	-40 to +85				
Storage Temperature		°C	-50 to +85				
Package Type		mm	S6	Ø3x54: for bare fiber			
			S8	Ø3x70: for 0.9mm loose tube			
			M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable			

## Splitting Ratio & Insertion Loss Conversion Table for 2000, 1550, 1310 ± 20nm

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port1	Output Port2	Output Port1	Output Port2
60:40	2.6	4.6	3.0	5.0
70:30	1.9	5.9	2.4	6.3
80:20	1.2	7.8	1.7	8.3
90:10	0.7	11.2	1.2	12
95:5	0.5	15	0.8	16

## Splitting Ratio & Insertion Loss Conversion Table for 850 ± 20nm

Splitting Ratio	Maximum Insertion Loss (dB)					
	Ultra-Premium		Premium		A grade	
	Output Port1	Output Port2	Output Port1	Output Port2	Output Port1	Output Port2
60:40	2.8	4.8	3.3	5.2	3.8	5.7
70:30	2.2	6.0	2.6	6.5	3.0	7.0
80:20	1.5	7.9	1.9	8.3	2.4	9.0
90:10	1.1	11.2	1.4	11.6	1.9	12.5
95:5	0.9	14.0	1.2	15.5	1.5	16.5

## Ordering Information

M	B	S								
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector		
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	1=1x2 2=2x2	95=95:5 90=90:10 80=80:20 70=70:30 60=60:40 50=50:50	U=Ultra-Premium P=Premium A=A grade	5=S6 7=S8 D=M1	3=62.5/125μm	S=250μm Bare fiber M=0.9mm Loose tube L=3mm Cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC		

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.



# 1x3(3x3) 105/125µm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications			Splitting Ratio: 33:33:33			
Parameter		Unit	1x3		3x3	
Grade			P	A	P	A
Central Wavelength		nm	2000, 1550, 1310, 850			
Bandwidth		nm	±20			
Insertion Loss	Max.	dB	5.4	5.7	5.8	6.2
Excess Loss	Typ.	dB	0.2	0.4	0.3	0.6
Uniformity	Max.	dB	1.0	1.4	1.4	1.8
Operating power	Max.	W	5			
Operating Temperature		°C	-40 to +85			
Storage Temperature		°C	-50 to +85			
Package Type		mm	S6	Ø3x54: for bare fiber		
			S8	Ø3x70: for 0.9mm loose tube		
			M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Ordering Information

M	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	3=1x3 A=3x3	33=33:33:33	P=Premium A=A grade	5=S6 7=S8 E=M2	4=105/125µm (NA=0.15) J=105/125µm (NA=0.22)	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/U/PC 8=SC/U/PC 9=MU A=LC/PC B=SC/PC C=LC/U/PC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x3(3x3) 50/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications		Splitting Ratio: 33:33:33								
Parameter		Unit	1x3				3x3			
Grade			P	A	P	A	P	A	P	A
Central Wavelength		nm	2000,1550,1310		850		2000,1550,1310		850	
Bandwidth		nm	±20							
Insertion Loss	Max.	dB	6.2	6.7	7.2	7.7	6.7	7.2	7.7	8.2
Excess Loss	Typ.	dB	0.4	0.7	1.0	1.2	0.7	1.0	1.2	1.4
Uniformity	Max.	dB	1.0	1.4	1.0	1.4	1.4	1.8	1.4	1.8
Operating power	Max.	W	5							
Operating Temperature		°C	-40 to +85							
Storage Temperature		°C	-50 to +85							
Package Type		mm	S6	Ø3x54: for bare fiber						
			S8	Ø3x70: for 0.9mm loose tube						
			M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable						

## Ordering Information

M	B	S										
			Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector	
			4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	3=1x3 A=3x3	33=33:33:33	P=Premium A=A grade	5=S6 7=S8 E=M2	2=50/125μm	S=250μm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC	

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. Measured under the stable mode condition with LED source.

# 1x3(3x3) 62.5/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications		Splitting Ratio: 33:33:33								
Parameter		Unit	1x3				3x3			
Grade			P	A	P	A	P	A	P	A
Central Wavelength		nm	2000,1550,1310		850		2000,1550,1310		850	
Bandwidth		nm	±20							
Insertion Loss	Max.	dB	5.6	6.0	6.4	6.8	6.0	6.5	6.8	7.3
Excess Loss	Typ.	dB	0.3	0.4	0.6	0.8	0.4	0.6	0.8	1.0
Uniformity	Max.	dB	1.0	1.4	1.0	1.4	1.4	1.8	1.4	1.8
Operating power	Max.	W	5							
Operating Temperature		°C	-40 to +85							
Storage Temperature		°C	-50 to +85							
Package Type		mm	S6	Ø3x54: for bare fiber						
			S8	Ø3x70: for 0.9mm loose tube						
			M2	7.5x18x90: for 0.9mm loose tube or 2mm cable or 3mm cable						

## Ordering Information

M	B	S									
			Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector
			4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	3=1x3 A=3x3	33=33:33:33	P=Premium A=A grade	5=S6 7=S8 E=M2	3=62.5/125μm	S=250μm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
 2. All specifications are before connectors and are subject to change without notice.  
 3. Measured under the stable mode condition with LED source.

# 1x4(4x4) 105/125µm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications			Splitting Ratio: 25:25:25:25			
Parameter		Unit	1x4		4x4	
Grade			P	A	P	A
Central Wavelength		nm	2000, 1550, 1310, 850			
Bandwidth		nm	±20			
Insertion Loss	Max.	dB	6.8	7.3	7.3	7.8
Excess Loss	Typ.	dB	0.2	0.4	0.3	0.5
Uniformity	Max.	dB	1.2	1.6	1.8	2.2
Operating power	Max.	W	5			
Operating Temperature		°C	-40 to +85			
Storage Temperature		°C	-50 to +85			
Package Type		mm	S11	Ø4x60: for bare fiber		
			S12	Ø4x70: for 0.9mm loose tube		
			M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable		

## Ordering Information

M	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	4=1x4 B=4x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	4=105/125µm (NA=0.15) J=105/125µm (NA=0.22)	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/U/PC 8=SC/U/PC 9=MU A=LC/PC B=SC/PC C=LC/U/PC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x4(4x4) 50/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications			Splitting Ratio: 25:25:25:25							
Parameter		Unit	1x4				4x4			
Grade			P	A	P	A	P	A	P	A
Central Wavelength		nm	2000,1550,1310		850		2000,1550,1310		850	
Bandwidth		nm	±20							
Insertion Loss	Max.	dB	7.5	8.0	8.5	9.0	8.0	8.5	9.0	9.5
Excess Loss	Typ.	dB	0.8	1.0	1.2	1.5	1.0	1.2	1.5	1.8
Uniformity	Max.	dB	1.2	1.6	1.2	1.6	1.8	2.2	1.8	2.2
Operating power	Max.	W	5							
Operating Temperature		°C	-40 to +85							
Storage Temperature		°C	-50 to +85							
Package Type	mm	S11	Ø4x60: for bare fiber							
		S12	Ø4x70: for 0.9mm loose tube							
		M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable							

## Ordering Information

M	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	4=1x4 B=4x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	2=50/125μm	S=250μm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/U/PC 8=SC/U/PC 9=MU A=LC/PC B=SC/PC C=LC/U/PC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# 1x4(4x4) 62.5/125μm Multi-Mode Broadband Splitter (Mixer)



## Product Features

- Low Insertion Loss
- High Directivity
- Stable and Reliable
- Compact Size

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications			Splitting Ratio: 25:25:25:25							
Parameter		Unit	1x4				4x4			
Grade			P	A	P	A	P	A	P	A
Central Wavelength		nm	2000,1550,1310		850		2000,1550,1310		850	
Bandwidth		nm	±20							
Insertion Loss	Max.	dB	7.5	8.0	8.5	9.0	7.5	8.0	8.3	8.8
Excess Loss	Typ.	dB	0.8	1.0	1.2	1.5	0.4	0.5	0.8	1.0
Uniformity	Max.	dB	1.2	1.6	1.2	1.6	1.8	2.2	1.8	2.2
Operating power	Max.	W	5							
Operating Temperature		°C	-40 to +85							
Storage Temperature		°C	-50 to +85							
Package Type	mm	S11	Ø4x60: for bare fiber							
		S12	Ø4x70: for 0.9mm loose tube							
		M4	8x26x100: for 0.9mm loose tube or 2mm cable or 3mm cable							

## Ordering Information

M	B	S									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	4=1x4 B=4x4	25=25:25:25:25	P=Premium A=A grade	A=S11 B=S12 G=M4	3=62.5/125μm	S=250μm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

# Star & Tree 50/125μm Multi-Mode Broadband Splitter Module



## Product Features

- Low Insertion Loss
- Low Excess Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications										
Parameter	Unit	Nx8(N=1,2,8)		Nx16(N=1,2)		Nx32(N=1,2)				
Grade		P	A	P	A	P	A			
Central Wavelength	nm	2000±20 or 1550±20 or 1310±20								
Insertion Loss	Max.	dB	11.5	12.5	15	16	19	20.5		
Excess Loss	Typ.	dB	1.5	2.0	1.5	2.0	2.5	3.0		
Uniformity	Max.	dB	1.5	2.0	2.0	3.0	3.0	3.5		
Central Wavelength	nm	850±20								
Insertion Loss	Max.	dB	13	14	17	18	21.5	23		
Excess Loss	Typ.	dB	2.0	2.5	2.4	3.0	3.0	4.0		
Uniformity	Max.	dB	1.5	2.0	2.0	3.0	3.0	3.5		
Operating power	Max.	W	5							
Operating Temperature	°C	-40 to +85								
Storage Temperature	°C	-50 to +85								
Package Type	mm	M8=43x322x480 M11=58x130x132		M8=43x322x480						
		M5=10x80x100: for 0.9mm loose tube or 3mm cable		M6=18x115x141: for 0.9mm loose tube or 3mm cable						

## Ordering Information

M	B	M									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	18=1x8 28=2x8 88=8x8 A6=1x16 B6=2x16 E2=1x32 F2=2x32	0=Even	P=Premium A=A grade	H=M5 I=M6 K=M8 P=M11	2=50/125μm	M=0.9mm loose tube L=3mm Cable R=2mm cable F=Adapting Flange	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify N=None	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.



# Star & Tree 62.5/125μm Multi-Mode Broadband Splitter Module



## Product Features

- Low Insertion Loss
- Low Excess Loss
- High Directivity
- Stable and Reliable

## Product Applications

- Optical Communication System
- LAN
- FDDI
- Access Network

Specifications								
Parameter	Unit	Nx8(N=1,2,8)		Nx16(N=1,2)		Nx32(N=1,2)		
Grade		P	A	P	A	P	A	
Central Wavelength	nm	2000±20 or 1550±20 or 1310±20						
Insertion Loss	Max.	dB	10.5	11.5	14	15	17.5	19
Excess Loss	Typ.	dB	0.6	1.0	0.6	1.0	1.0	1.5
Uniformity	Max.	dB	1.5	2.0	2.0	3.0	2.5	3.5
Central Wavelength	nm	850±20						
Insertion Loss	Max.	dB	12	13	15.5	16.5	19.5	21
Excess Loss	Typ.	dB	1.5	1.8	1.5	1.8	2.0	2.5
Uniformity	Max.	dB	1.5	2.0	2.0	3.0	3.0	3.5
Operating power	Max.	W	5					
Operating Temperature	°C	-40 to +85						
Storage Temperature	°C	-50 to +85						
Package Type	mm	M8=43x322x480 M11=58x130x132		M8=43x322x480				
		M5=10x80x100: for 0.9mm loose tube or 3mm cable		M6=18x115x141: for 0.9mm loose tube or 3mm cable				

## Ordering Information

M	B	M									
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 7=1310nm A=850nm P=2000nm S=Specify	18=1x8 28=2x8 88=8x8 A6=1x16 B6=2x16 E2=1x32 F2=2x32	0=Even	P=Premium A=A grade	H=M5 I=M6 K=M8 P=M11	3=62.5/125μm	M=0.9mm loose tube L=3mm Cable R=2mm cable F=Adapting Flange	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify N=None	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. Measured under the stable mode condition with LED source.

## MM Fiber Patch Cords



### Product Features

- Low Insertion Loss
- High Power Handling
- Excellent Return Loss
- Telecordia GR-326 Compliant

### Product Applications

- Power Jumps
- Testing Systems
- MM Fiber Sense Systems
- Optical MM Modules

### Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Center Wavelength(nm)	nm	780, 830, 980, 1064		1310, 1480, 1550, 2000	
Insertion Loss	Max.	dB	0.60	0.80	0.50, 0.60
Operating power	Max.	W	5		
Operating Temperature	°C				-40 to +85
Storage Temperature	°C				-50 to +85



### Ordering Information

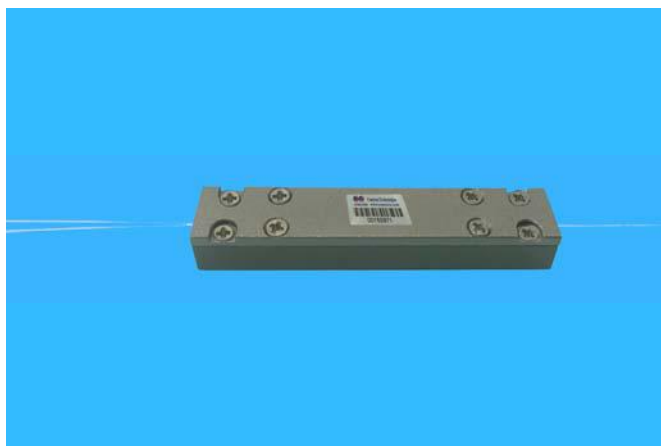
M	F	P	C					0	0			
Wavelength	Grade	Cable Type	Fiber Type							Cable Length	Connector at Port 1	Connector at port 2
4=1550nm 5=1480nm 7=1310nm 8=1064nm 9=980nm L=780nm K=830nm P=2000nm S=Specify	P=Premium A=A grade	S=250µm bare fiber M=0.9mm loose tube L=3mm cable	2=50/125µm 3=62.5/125µm 4=105/125µm (NA=0.15) J=105/125µm (NA=0.22) K=200/220µm (NA=0.22) Q=400/440µm (NA=0.22)							1= 1.0m 2= 2.0m 3= 3.0m 4= 4.0m 5= 5.0m S=Specify	1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC	0= None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# ***Pump Combiners & Pump and Signal Combiners***



## 2x1 Multimode Pump Combiners



### Product Features

- High Power Coupling Efficiency
- Wavelength Insensitive
- High Power Handling
- Custom Configurations Available

### Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser
- Industrial & Research

### Specifications

Parameter	Unit					
Port Configuration		2x1				
Pump Input Wavelength Range	nm	800-1000				
Transfer Efficiency	Typ.	%	93			
Transfer Efficiency	Min.	%	85			
Operating Power Per Input Channel	Max.	W	5	10	25	50
Operating Temperature	°C	-5 to +75				
Storage Temperature	°C	-50 to +85				
Package Size	mm	S11=Ø4x60	M13=65x12x7.4	M14=100x15x10		

### General Configuration for 2x1 Combiner

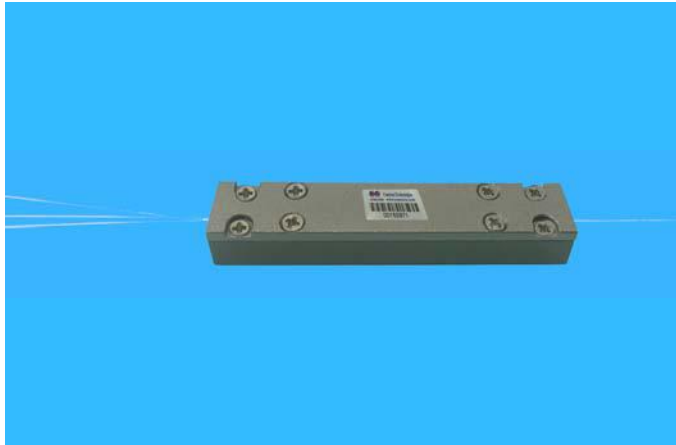
Configuration	Wavelength (nm)	Input Fiber Type	Output Fiber Type	Transfer Efficiency
2x1	800-1000	105/125 0.15	105/125 0.22	90%
2x1	800-1000	105/125 0.15	200/220 0.22	93%
2x1	800-1000	105/125 0.15	X/125 DCF	93%
2x1	800-1000	105/125 0.22	200/220 0.22	93%
2x1	800-1000	105/125 0.22	X/125 DCF	93%
2x1	800-1000	200/220 0.22	X/125 DCF	93%
2x1	800-1000	200/220 0.22	400/440 0.22	93%

### Ordering Information

M	P	C	0	2						
					Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
					005=5W	1=105/128 0.15	1=105/125 0.22	A=S11	0=0.5m	0=None
					010=10W	2=105/125 0.22	2=200/220 0.22	P=M13	1=0.75m	
					025=25W	3=200/220 0.22	3=400/440 0.22	Q=M14	2=1.0m	
					050=50W	S=Specify	4=X/125 DCF		S=Specify	
					100=100W		S=Specify			

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## 3x1 Multimode Pump Combiners



### Product Features

- High Power Coupling Efficiency
- Wavelength Insensitive
- High Power Handling
- Custom Configurations Available

### Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser
- Industrial & Research

### Specifications

Parameter	Unit						
Port Configuration		3x1					
Pump Input Wavelength Range	nm	800-1000					
Transfer Efficiency	Typ.	%	93				
Transfer Efficiency	Min.	%	85				
Operating Power Per Input Channel	Max.	W	5	10	25	50	100
Operating Temperature	°C	-5 to +75					
Storage Temperature	°C	-50 to +85					
Package Size	mm	S11=Ø4x60		M13=65x12x7.4		M14=100x15x10	

### General Configuration for 3x1 Combiner

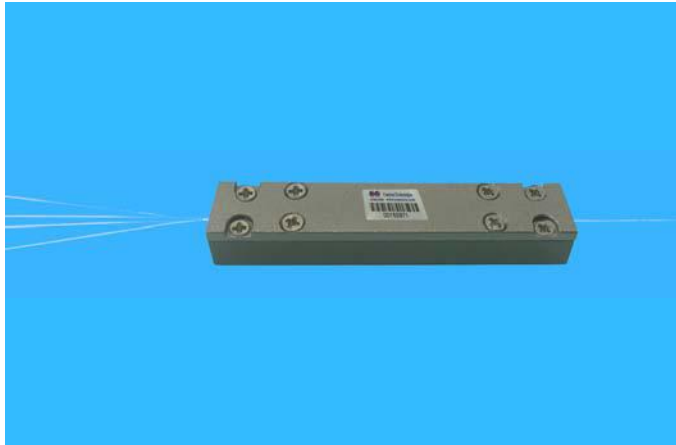
Configuration	Wavelength (nm)	Input Fiber Type	Output Fiber Type	Transfer Efficiency
3x1	800-1000	105/125 0.15	105/125 0.22	90%
3x1	800-1000	105/125 0.15	X/125 DCF	93%
3x1	800-1000	105/125 0.22	200/220 0.22	93%
3x1	800-1000	105/125 0.22	125 0.46	93%
3x1	800-1000	105/125 0.22	X/125 DCF	93%
3x1	800-1000	200/220 0.22	X/125 DCF	93%
3x1	800-1000	200/220 0.22	400/440 0.22	93%

### Ordering Information

M	P	C	O	3						
					Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
					005=5W 010=10W 025=25W 050=50W 100=100W	1=105/125 0.15 2=105/125 0.22 3=200/220 0.22 S=Specify	1=125 0.46 2=105/125 0.22 3=200/220 0.22 4=400/440 0.22 5=X/125 DCF S=Specify	A=S11 P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## 4x1 Multimode Pump Combiners



### Product Features

- High Power Coupling Efficiency
- Wavelength Insensitive
- High Power Handling
- Custom Configurations Available

### Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser
- Industrial & Research

### Specifications

Parameter	Unit						
Port Configuration		4x1					
Pump Input Wavelength Range	nm	800-1000					
Transfer Efficiency	Typ.	%	93				
Transfer Efficiency	Min.	%	85				
Operating Power Per Input Channel	Max.	W	5	10	25	50	100
Operating Temperature	°C	-5 to +75					
Storage Temperature	°C	-50 to +85					
Package Size	mm	S11=Ø4x60		M13=65x12x7.4		M14=100x15x10	

### General Configuration for 4x1 Combiner

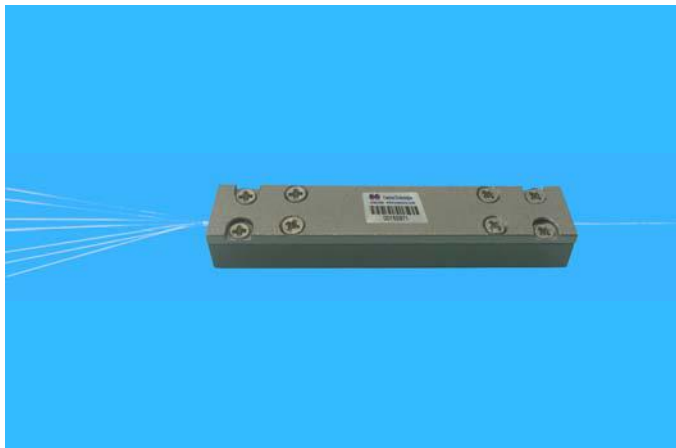
Configuration	Wavelength (nm)	Input Fiber Type	Output Fiber Type	Transfer Efficiency
4x1	800-1000	105/125 0.15	200/220 0.22	90%
4x1	800-1000	105/125 0.15	X/125 DCF	93%
4x1	800-1000	105/125 0.22	200/220 0.22	90%
4x1	800-1000	105/125 0.22	125 0.46	93%
4x1	800-1000	105/125 0.22	X/125 DCF	93%
4x1	800-1000	200/220 0.22	X/125 DCF	93%
4x1	800-1000	200/220 0.22	400/440 0.22	90%

### Ordering Information

M	P	C	O	4						
					Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
					005=5W 010=10W 025=25W 050=50W 100=100W	1=105/125 0.15 2=105/125 0.22 3=200/220 0.22 S=Specify	1=125 0.46 2=200/220 0.22 3=400/440 0.22 4=X/125 DCF S=Specify	A=S11 P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## 7x1 Multimode Pump Combiners



### Product Features

- High Power Coupling Efficiency
- Wavelength Insensitive
- High Power Handling
- Custom Configurations Available

### Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser
- Industrial & Research

### Specifications

Parameter	Unit						
Port Configuration		7x1					
Pump Input Wavelength Range	nm	800-1000					
Transfer Efficiency	Typ.	%	93				
Transfer Efficiency	Min.	%	85				
Operating Power Per Input Channel	Max.	W	5	10	25	50	100
Operating Temperature	°C	-5 to +75					
Storage Temperature	°C	-50 to +85					
Package Size	mm	S11=Ø4x60		M13=65x12x7.4		M14=100x15x10	

### General Configuration for 7x1 Combiner

Configuration	Wavelength (nm)	Input Fiber Type	Output Fiber Type	Transfer Efficiency
7x1	800-1000	105/125 0.15	200/220 0.22	93%
7x1	800-1000	105/125 0.15	X/125 DCF	93%
7x1	800-1000	105/125 0.22	200/242 0.22	93%
7x1	800-1000	105/125 0.22	125 0.46	93%
7x1	800-1000	105/125 0.22	X/125 DCF	93%
7x1	800-1000	105/125 0.22	400/440 0.22	93%
7x1	800-1000	200/220 0.22	X/400 DCF	93%
7x1	800-1000	200/242 0.22	X/400 DCF	93%

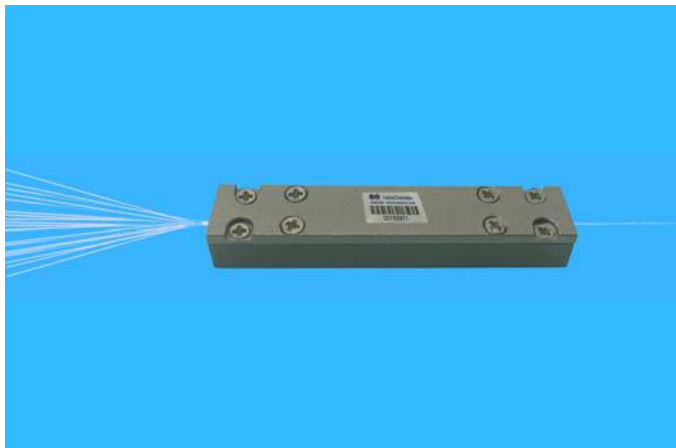
### Ordering Information

M	P	C	O	7						
					Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
					005=5W 010=10W 025=25W 050=50W 100=100W	1=105/125 0.15 2=105/125 0.22 3=200/220 0.22 4=200/242 0.22 S=Specify	1=125 0.46 2=200/220 0.22 3=200/242 0.22 4=400/440 0.22 5=X/125 DCF 6=X/400 DCF S=Specify	A=S11 P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.



## 19x1 Multimode Pump Combiners



### Product Features

- High Power Coupling Efficiency
- Wavelength Insensitive
- High Power Handling
- Custom Configurations Available
- 

### Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser
- Industrial & Research

### Specifications

Parameter	Unit						
Port Configuration			19x1				
Pump Input Wavelength Range	nm		800-1000				
Transfer Efficiency	Typ.	%	93				
Transfer Efficiency	Min.	%	85				
Operating Power Per Input Channel	Max.	W	5	10	25	50	100
Operating Temperature	°C		-5 to +75				
Storage Temperature	°C		-50 to +85				
Package Size	mm		S11=Ø4x60	M13=65x12x7.4	M14=100x15x10		

### General Configuration for 19x1 Combiner

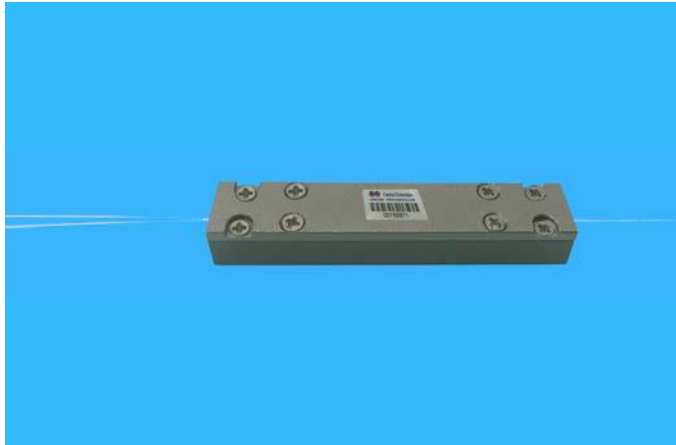
Configuration	Wavelength (nm)	Input Fiber Type	Output Fiber Type	Transfer Efficiency
19x1	800-1000	105/125 0.15	400/440 0.22	93%
19x1	800-1000	105/125 0.15	X/200 DCF	93%
19x1	800-1000	105/125 0.22	X/250 DCF	93%
19x1	800-1000	105/125 0.22	X/400 DCF	93%

### Ordering Information

M	P	C	O	J						
					Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
					005=5W 010=10W 025=25W 050=50W 100=100W 150=150W	1=105/125 0.15 2=105/125 0.22 S=Specify	1=400/440 0.22 2=X/200 DCF 3=X/250 DCF 4=X/400 DCF S=Specify	A=S11 P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (1+1) x1 PM Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- Preservation of Mode Content
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit					
Port Configuration		(1+1) x1				
Pump Wavelength	nm	800-1000				
Signal Wavelength	nm	1030-1080		1530-1580		
Signal Insertion loss	Max. dB	0.5				
Pump Transfer efficiency	Typ. %	90-95				
Pump Transfer efficiency	Min. %	85				
PER	Min. dB	18				
Return loss	Min. dB	45				
Operating power handling	Max. W	5	10	25	50	100
Operating Temperature	°C	-5 to +75				
Storage Temperature	°C	-50 to +85				
Package Size	mm	M13=65x12x7.4			M14=100x15x10	

### General Configuration for (1+1) x1 Combiner

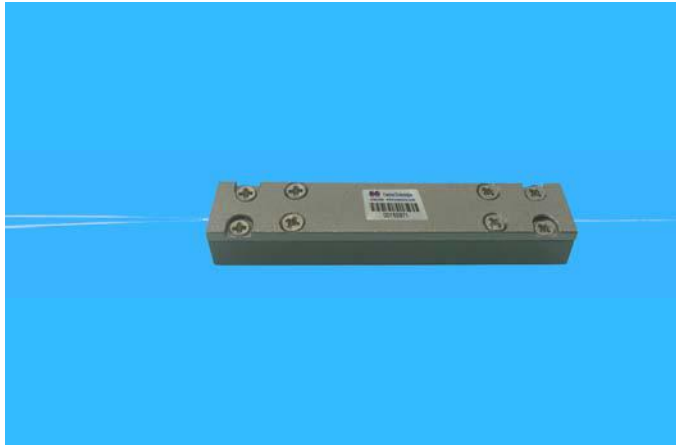
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(1+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM6/125 DC	0.3dB	90%
(1+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM10/125 DC	0.5dB	90%
(1+1) x1	1030-1080	105/125 0.22	PM6/125 DC	PM6/125 DC	0.5dB	90%
(1+1) x1	1030-1080	105/125 0.22	PM10/125 DC	PM10/125 DC	0.3dB	90%
(1+1) x1	1030-1080	105/125 0.22	PM20/125 DC	PM20/125 DC	0.7dB	90%
(1+1) x1	1030-1080	200/220 0.22	PM25/250 DC	PM25/250 DC	0.5dB	90%
(1+1) x1	1030-1080	200/220 0.22	PM20/400 DC	PM20/400 DC	0.5dB	90%
(1+1) x1	1530-1580	105/125 0.22	PM12/130 DC	PM12/130 DC	0.5dB	90%
(1+1) x1	1530-1580	105/125 0.22	PM12/130 DC	PM25/300 DC	0.5dB	90%

### Order Information

P	M	C	1	1						
			Signal Wavelength	Operating Power	Pump Input	Signal Input	Output	Package	Fiber Length	
			1=1030-1080 2=1530-1580	05=5W 10=10W 25=25W 50=50W 00=100W	1=105/125 0.22 2=200/220 0.22 S=Specify	1=PM5/130 DC 2=PM6/125 DC 3=PM10/125 DC 4=PM20/125 DC 5=PM25/250 DC 6=PM20/400 DC 7=PM12/130 DC S=Specify	1=PM6/125 DC 2=PM10/125 DC 3=PM20/125 DC 4=PM25/250 DC 5=PM20/400 DC 6=PM12/130 DC 7=PM25/300 DC S=Specify	P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify	

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (1+1) x1 Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- Preservation of Mode Content
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit					
Port Configuration		(1+1) x1				
Pump Wavelength	nm	800-1000				
Signal Wavelength	nm	1030-1080		1530-1580		
Signal Insertion loss	Max. dB	0.5				
Pump Transfer efficiency	Typ. %	90-95				
Pump Transfer efficiency	Min. %	85				
Return loss	Min. dB	45				
Operating power handling	Max. W	5	10	25	50	100
Operating Temperature	°C	-5 to +75				
Storage Temperature	°C	-50 to +85				
Package Size	mm	M13=65x12x7.4			M14=100x15x10	

### General Configuration for (1+1) x1 Combiner

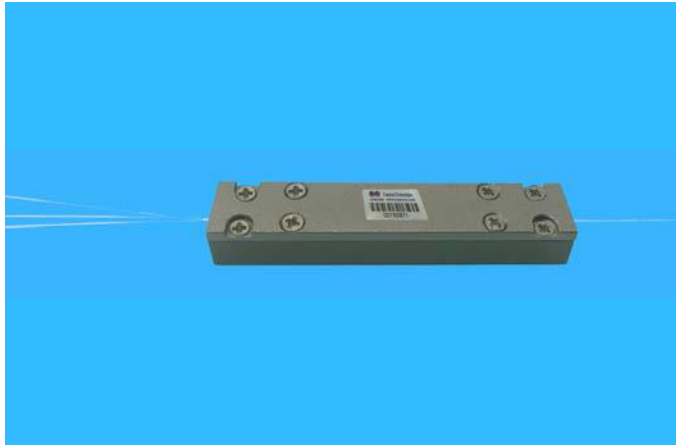
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(1+1) x1	1030-1080	105/125 0.22	HI1060	10/125 DC	0.5dB	90%
(1+1) x1	1030-1080	105/125 0.22	5/130 DC	6/125 DC	0.3dB	90%
(1+1) x1	1030-1080	105/125 0.22	5/130 DC	10/125 DC	0.5dB	90%
(1+1) x1	1030-1080	105/125 0.22	6/125 DC	6/125 DC	0.5dB	90%
(1+1) x1	1030-1080	105/125 0.22	10/125 DC	10/125 DC	0.3dB	90%
(1+1) x1	1030-1080	105/125 0.22	20/125 DC	20/125 DC	0.7dB	90%
(1+1) x1	1030-1080	200/220 0.22	25/250 DC	25/250 DC	0.5dB	90%
(1+1) x1	1030-1080	200/220 0.22	20/400 DC	20/400 DC	0.5dB	90%
(1+1) x1	1530-1580	105/125 0.22	12/130 DC	12/130 DC	0.5dB	90%
(1+1) x1	1530-1580	105/125 0.22	12/130 DC	25/300 DC	0.5dB	90%

### Order Information

P	S	C	1	1							
					Signal Wavelength	Operating Power	Pump Input	Signal Input	Output	Package	Fiber Length
					1=1030-1080 2=1530-1580	05=5W 10=10W 25=25W 50=50W 00=100W	1=105/125 0.22 2=200/220 0.22 S=Specify	1=HI1060 2=5/130 DC 3=6/125 DC 4=10/125 DC 5=20/125 DC 6=25/250 DC 7=20/400 DC 8=12/130 DC S=Specify	1=6/125 DC 2=10/125 DC 3=20/125 DC 4=25/250 DC 5=20/400 DC 6=12/130 DC 7=25/300 DC S=Specify	P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (2+1) x1 PM Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- Preservation of Mode Content
- Wavelength Insensitive
- Custom Configurations Available
- 

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit					
Port Configuration		(2+1) x1				
Pump Wavelength	nm	800-1000				
Signal Wavelength	nm	1030-1080		1530-1580		
Signal Insertion loss	Max. dB	0.7				
Pump Transfer efficiency	Typ. %	90-95				
Pump Transfer efficiency	Min. %	85				
PER	Min. dB	18				
Return loss	Min. dB	45				
Operating power handling	Max. W	5	10	25	50	100
Operating Temperature	°C	-5 to +75				
Storage Temperature	°C	-50 to +85				
Package Size	mm	M13=65x12x7.4			M14=100x15x10	

### General Configuration for (2+1) x1 Combiner

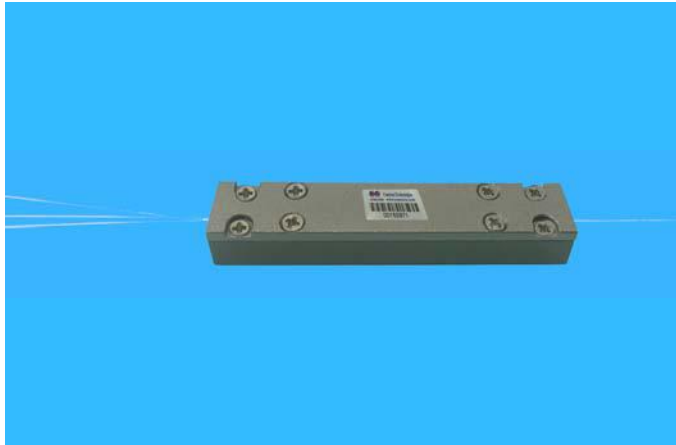
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(2+1) x1	1030-1080	105/125 0.22	PM980	PM10/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	PM 05/130 DC	PM 06/125 DC	0.3dB	90%
(2+1) x1	1030-1080	105/125 0.22	PM 05/130 DC	PM 10/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	PM 06/125 DC	PM 06/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	PM 10/125 DC	PM 10/125 DC	0.3dB	90%
(2+1) x1	1030-1080	105/125 0.22	PM 20/125 DC	PM 20/125 DC	0.7dB	90%
(2+1) x1	1030-1080	200/220 0.22	PM 25/250 DC	PM 25/250 DC	0.5dB	90%
(2+1) x1	1030-1080	200/220 0.22	PM 20/400 DC	PM 20/400 DC	0.5dB	90%
(2+1) x1	1530-1580	105/125 0.22	PM 12/130 DC	PM 12/130 DC	0.5dB	90%
(2+1) x1	1530-1580	105/125 0.22	PM 12/130 DC	PM 25/300 DC	0.5dB	90%

### Order Information

P	M	C	2	1							
					Signal Wavelength	Operating Power	Pump Input	Signal Input	Output	Package	Fiber Length
					1=1030-1080 2=1530-1580	05=5W 10=10W 25=25W 50=50W 00=100W	1=105/125 0.22 2=200/220 0.22 S=Specify	1=PM980 2=PM10/125 DC 3=PM20/125 DC 4=PM25/250 DC 5=PM20/400 DC S=Specify	1=PM10/125 DC 2=PM20/125 DC 3=PM25/250 DC 4=PM20/400 DC 5=PM25/300 DC S=Specify	P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (2+1) x1 Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- All Fiber Construction
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit						
Port Configuration			(2+1) x1				
Pump Wavelength	nm		800-1000				
Signal Wavelength	nm		1030-1080		1530-1580		
Signal Insertion loss	Max.	dB	0.5				
Pump Transfer efficiency	Typ.	%	90-95				
Pump Transfer efficiency	Min.	%	85				
Return loss	Min.	dB	45				
Operating power handling	Max.	W	5	10	25	50	100
Operating Temperature	°C		-5 to +75				
Storage Temperature	°C		-50 to +85				
Package Size	mm		M13=65x12x7.4			M14=100x15x10	

### General Configuration for (2+1) x1 Combiner

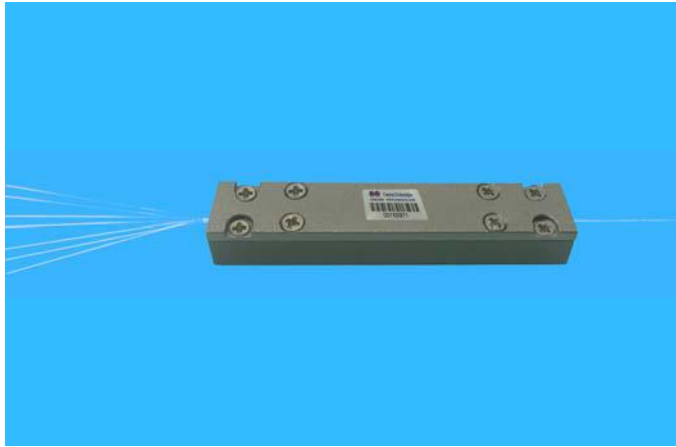
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(2+1) x1	1030-1080	105/125 0.22	HI1060	10/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	5/130 DC	6/125 DC	0.3dB	90%
(2+1) x1	1030-1080	105/125 0.22	5/130 DC	10/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	6/125 DC	6/125 DC	0.5dB	90%
(2+1) x1	1030-1080	105/125 0.22	10/125 DC	10/125 DC	0.3dB	90%
(2+1) x1	1030-1080	105/125 0.22	20/125 DC	20/125 DC	0.7dB	90%
(2+1) x1	1030-1080	200/220 0.22	25/250 DC	25/250 DC	0.5dB	90%
(2+1) x1	1030-1080	200/220 0.22	20/400 DC	20/400 DC	0.5dB	90%
(2+1) x1	1530-1580	105/125 0.22	12/130 DC	12/130 DC	0.5dB	90%
(2+1) x1	1530-1580	105/125 0.22	12/130 DC	25/300 DC	0.5dB	90%

### Order Information

P	S	C	2	1							
					Signal Wavelength 1=1030-1080 2=1530-1580	Operating Power 05=5W 10=10W 25=25W 50=50W 00=100W	Pump Input 1=105/125 0.22 2=200/220 0.22 S=Specify	Signal Input 1=HI1060 2=5/130 DC 3=6/125 DC 4=10/125 DC 5=20/125 DC 6=25/250 DC 7=20/400 DC 8=12/130 DC S=Specify	Output 1=6/125 DC 2=10/125 DC 3=20/125 DC 4=25/250 DC 5=20/400 DC 6=12/130 DC 7=25/300 DC S=Specify	Package P=M13 Q=M14	Fiber Length 0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (6+1) x1 PM Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- All Fiber Construction
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit						
Port Configuration			(6+1) x1				
Pump Wavelength	nm		800-1000				
Signal Wavelength	nm		1030-1080		1530-1580		
Signal Insertion loss	Max.	dB	0.7				
Pump Transfer efficiency	Typ.	%	90-95				
Pump Transfer efficiency	Min.	%	85				
PER	Min.	dB	18				
Return loss	Min.	dB	45				
Operating power handling	Max.	W	5	10	25	50	100
Operating Temperature	°C		-5 to +75				
Storage Temperature	°C		-50 to +85				
Package Size	mm		M13=65x12x7.4			M14=100x15x10	

### General Configuration for (6+1) x1 Combiner

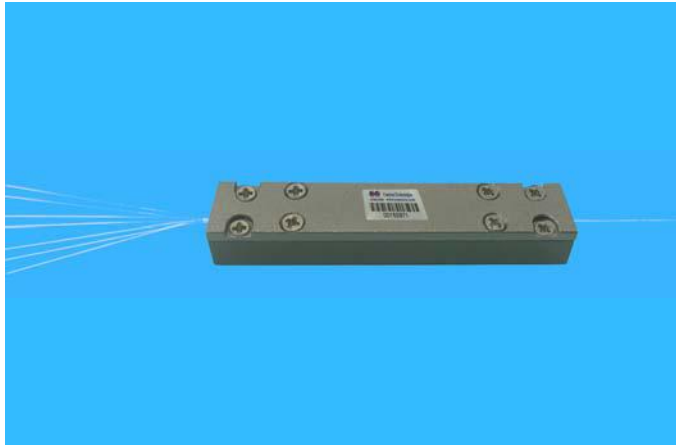
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(6+1) x1	1030-1080	105/125 0.22	PM980	PM 10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM 5/130 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	PM 5/130 DC	PM 10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	PM 10/125 DC	PM 10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	PM 10/125 DC	PM 30/250 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	PM 20/125 DC	PM 25/250 DC	0.7dB	93%
(6+1) x1	1030-1080	200/220 0.22	PM 20/400 DC	PM 20/400 DC	0.7dB	93%
(6+1) x1	1030-1080	200/242 0.22	PM 20/400 DC	PM 20/400 DC	0.7dB	93%
(6+1) x1	1530-1580	105/125 0.22	PM 12/130 DC	PM 12/130 DC	0.7dB	93%
(6+1) x1	1530-1580	105/125 0.22	PM 12/130 DC	PM 25/300 DC	0.7dB	93%

### Order Information

P	M	C	6	1							
					Signal Wavelength 1=1030-1080 2=1530-1580	Operating Power 05=5W 10=10W 25=25W 50=50W 00=100W	Pump Input 1=105/125 0.22 2=200/220 0.22 3=200/242 0.22 S=Specify	Signal Input 1=PM980 2=PM5/130 DC 3=PM10/125 DC 4=PM20/125 DC 5=PM20/400 DC S=Specify	Output 1=PM10/125 DC 2=PM25/250 DC 3=PM30/250 DC 4=PM20/400 DC 5=PM25/300 DC S=Specify	Package P=M13 Q=M14	Fiber Length 0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (6+1) x1 Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- All Fiber Construction
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit						
Port Configuration			(6+1) x1				
Pump Wavelength	nm		800-1000				
Signal Wavelength	nm		1030-1080		1530-1580		
Signal Insertion loss	Max.	dB	0.7				
Pump Transfer efficiency	Typ.	%	90-95				
Pump Transfer efficiency	Min.	%	85				
Return loss	Min.	dB	45				
Operating power handling	Max.	W	5	10	25	50	100
Operating Temperature	°C		-5 to +75				
Storage Temperature	°C		-50 to +85				
Package Size	mm		M13=65x12x7.4			M14=100x15x10	

### General Configuration for (6+1) x1 Combiner

Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(6+1) x1	1030-1080	105/125 0.22	HI1060	10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	5/130 DC	5/130 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	5/130 DC	10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	10/125 DC	10/125 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	10/125 DC	30/250 DC	0.7dB	93%
(6+1) x1	1030-1080	105/125 0.22	20/125 DC	25/250 DC	0.7dB	93%
(6+1) x1	1030-1080	200/220 0.22	20/400 DC	20/400 DC	0.7dB	93%
(6+1) x1	1030-1080	200/242 0.22	20/400 DC	20/400 DC	0.7dB	93%
(6+1) x1	1530-1580	105/125 0.22	12/130 DC	12/130 DC	0.7dB	93%
(6+1) x1	1530-1580	105/125 0.22	12/130 DC	25/300 DC	0.7dB	93%

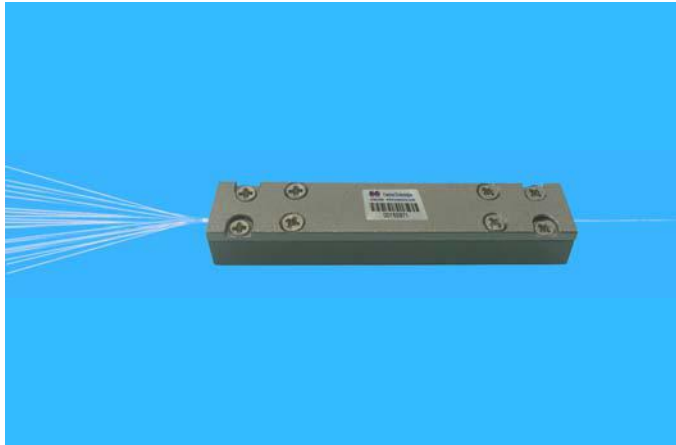
### Order Information

P	S	C	6	1							
Signal Wavelength		Operating Power		Pump Input		Signal Input		Output		Package	Fiber Length
1=1030-1080 2=1530-1580		05=5W 10=10W 25=25W 50=50W 00=100W		1=105/125 0.22 2=200/220 0.22 3=200/242 0.22 S=Specify		1=HI1060 2=5/130 DC 3=10/125 DC 4=20/125 DC 5=20/400 DC 6=12/130 DC S=Specify		1=5/130 DC 2=10/125 DC 3=25/250 DC 4=30/250 DC 5=20/400 DC 6=12/130 DC 7=25/300 DC S=Specify		P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.



## (18+1) x1 PM Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- All Fiber Construction
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

Specifications		Unit					
Parameter		Unit					
Port Configuration			(18+1) x1				
Pump Wavelength		nm	800-1000				
Signal Wavelength		nm	1030-1080		1530-1580		
Signal Insertion loss	Max.	dB	0.8				
Pump Transfer efficiency	Typ.	%	90-95				
Pump Transfer efficiency	Min.	%	85				
PER	Min.	dB	18				
Return loss	Min.	dB	45				
Operating power handling	Max.	W	5	10	25	50	100
Operating Temperature		°C	-5 to +75				
Storage Temperature		°C	-50 to +85				
Package Size		mm	M13=65x12x7.4			M14=100x15x10	

### General Configuration for (18+1) x1 Combiner

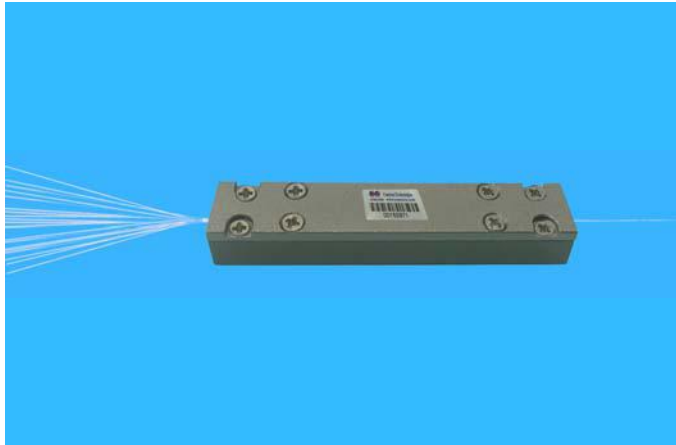
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(18+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM10/200 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM20/200 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM25/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM5/130 DC	PM30/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM10/125 DC	PM25/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM10/125 DC	PM30/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	PM10/125 DC	PM20/400 DC	0.8dB	93%

### Order Information

P	M	C	I	1							
					Signal Wavelength 1=1030-1080 2=1530-1580	Operating Power 05=5W 10=10W 25=25W 50=50W 00=100W	Pump Input 1=105/125 0.22 S=Specify	Signal Input 1=PM5/130 DC 2=PM10/125 DC S=Specify	Output 1=PM10/200 DC 2=PM20/200 DC 3=PM25/250 DC 4=PM30/250 DC 5=PM20/400 DC S=Specify	Package P=M13 Q=M14	Fiber Length 0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

## (18+1) x1 Pump and Signal Combiners



### Product Features

- High Power Transfer Efficiency
- All Fiber Construction
- Wavelength Insensitive
- Custom Configurations Available

### Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

### Specifications

Parameter	Unit						
Port Configuration			(18+1) x1				
Pump Wavelength	nm		800-1000				
Signal Wavelength	nm		1030-1080		1530-1580		
Signal Insertion loss	Max.	dB	0.8				
Pump Transfer efficiency	Typ.	%	90-95				
Pump Transfer efficiency	Min.	%	85				
Return loss	Min.	dB	45				
Operating power handling	Max.	W	5	10	25	50	100
Operating Temperature	°C		-5 to +75				
Storage Temperature	°C		-50 to +85				
Package Size	mm		M13=65x12x7.4			M14=100x15x10	

### General Configuration for (18+1) x1 Combiner

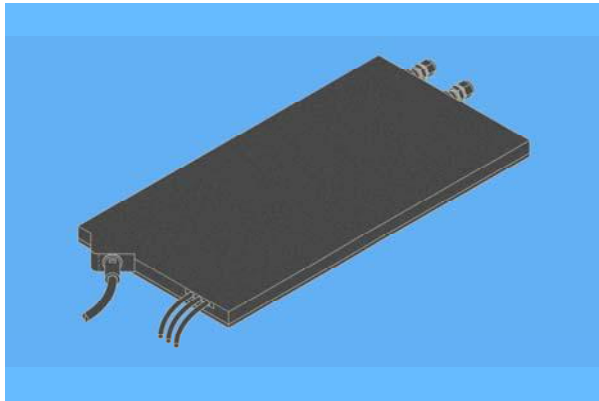
Configuration	Signal Wavelength (nm)	Pump fiber	Input signal fiber	Output fiber	Signal IL	Transfer Efficiency
(18+1) x1	1030-1080	105/125 0.22	5/130 DC	10/200 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	5/130 DC	20/200 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	5/130 DC	25/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	5/130 DC	30/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	10/125 DC	25/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	10/125 DC	30/250 DC	0.8dB	93%
(18+1) x1	1030-1080	105/125 0.22	10/125 DC	20/400 DC	0.8dB	93%

### Order Information

P	S	C	I	1							
Signal Wavelength		Operating Power		Pump Input		Signal Input		Output		Package	Fiber Length
1=1030-1080 2=1530-1580		05=5W 10=10W 25=25W 50=50W 00=100W		1=105/125 0.22 S=Specify		1=5/130 DC 2=10/125 DC S=Specify		1=10/200 DC 2=20/200 DC 3=25/250 DC 4=30/250 DC 5=20/400 DC S=Specify		P=M13 Q=M14	0=0.5m 1=0.75m 2=1.0m S=Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

# Nx1 High Power Laser Combiner



## Product Features

- High coupling efficiency
- High Power Handling
- Custom Configurations Available

## Product Applications

- High Power All-Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Laser

## Specifications

Parameter		Unit					
Port Configuration			3x1	4x1	5x1	6x1	7x1
Wavelength		nm	1040-1080				
Transfer Efficiency	Typ.	%	98				
Transfer Efficiency	Min.	%	96				
Operating Power	Max.	kW	3		6		
Operating Temperature		°C	-5 to +75				
Storage Temperature		°C	-50 to +85				
Package Type			High Power Module with cooling plate				
Package Size		mm	M15=610x305x52				

## General Configuration

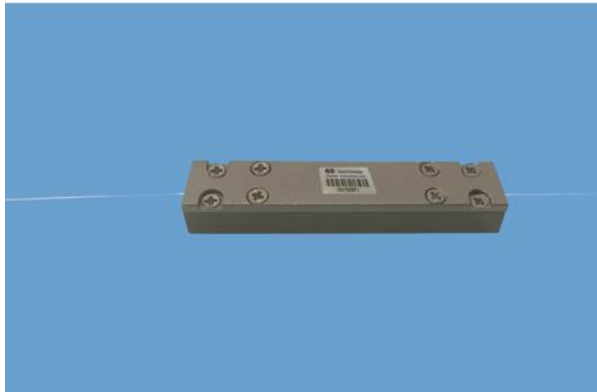
Port Configuration	Input Fiber Type	Output Fiber Type	Transfer Efficiency	M <sup>2</sup> (Max.)
3x1	20/400DCF	50/360 0.22	96-98%	7
3x1	x/125	50/360 0.22	96-98%	7
4x1	20/400DCF	50/360 0.22	96-98%	7
7x1	20/400DCF	100/360 0.22	96-98%	13

## Ordering Information

H	P	L	C							
				Structure	Operating Power	Input Fiber Type	Output Fiber Type	Package	Fiber Length	Connector
				03= 3x1 04= 4x1 05= 5x1 06= 6x1 07= 7x1	03=3kW 06=6kW	1=x/125 2=20/400 DCF S=Specify	1=50/360 0.22 2=100/360 0.22 S=Specify	U=M15	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

# Mode Field Adaptor



## Product Features

- High Power Transfer Efficiency
- Preservation of Mode Content
- Wavelength Insensitive
- High Power Handling

## Product Applications

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- Industrial, Telecom & Research

## Specifications

Parameter	Unit				
Port Configuration		1x1			
Signal Wavelength	nm	1030-1080		1530-1580	
Signal Insertion loss	Max. dB	0.7			
PER	Min. dB	18			
Return loss	Min. dB	45			
Operating power handling	Max. W	5	10	25	50
Operating Temperature	°C	-5 to +75			
Storage Temperature	°C	-50 to +85			
Package Type	mm	M13=65x12x7.4		M14=100x15x10	

## General Configuration

Signal Wavelength	Input signal fiber	Output Signal fiber	Max. Signal IL (dB)	Typical Signal IL (dB)
1030-1080	HI1060	25/250 0.06/0.46	0.5	0.1
1030-1080	HI1060	25/250 0.11/0.46	0.5	0.1
1030-1080	HI1060	20/400 0.06/0.46	0.5	0.1
1030-1080	PM980	PM25/250 0.06/0.46	0.5	0.1
1030-1080	PM980	PM25/250 0.11/0.46	0.5	0.1
1030-1080	PM980	PM20/400 0.06/0.46	0.5	0.1
1030-1080	10/125 0.08/0.46	25/250 0.06/0.46	0.5	0.1
1030-1080	10/125 0.08/0.46	25/250 0.11/0.46	0.5	0.1
1030-1080	10/125 0.08/0.46	20/400 0.06/0.46	0.5	0.1
1030-1080	PM10/125 0.08/0.46	PM25/250 0.06/0.46	0.5	0.1

## Order Information

M	F	A	1	1								
Signal Wavelength		Direction		Operating Power		Input Fiber		Output Fiber		Package		Fiber Length
1=1030-1080 2=1530-1580		1=Forward 2=Backward		05=5w 10=10w 25=20w 50=50w		1=HI1060 2=PM980 3=10/125 0.08/0.46 4=PM10/125 0.08/0.46 5=PM 20/400 DC S= Specify		1=25/250 0.11/0.46 2=20/400 0.06/0.46 3=PM25/250 0.06/0.46 4=PM25/250 0.11/0.46 5=20/400 0.06/0.46 S= Specify		P=M13 Q=M14		0=0.5m 1=0.75m 2=1.0m S= Specify

Note: 1. Configuration can be customized for different applications.  
2. All specifications are subject to change without notice.

**Comcore's High-Temperature Products  
Can Expand Your Expectation**



# 1310/1550nm High Temperature Single Mode Fiber WDM



## Product Features

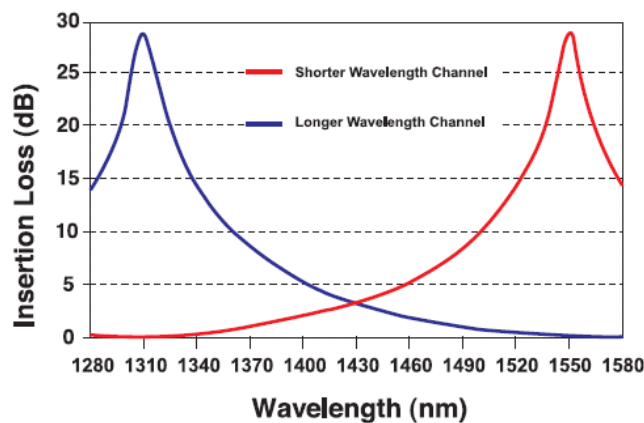
- High Sustained Temperature
- Low PDL
- High Isolation
- High Return Loss
- Stable and Reliable

## Product Applications

- Petroleum Service Systems
- Military Applications
- Special Optical Network
- Aerospace Industry

Specifications			1310/1550nm	
Parameter	Unit		Premium	A grade
Shorter Wavelength Channel		nm	1310±15	
Insertion Loss	Max.	dB	0.3	0.5
PDL	Max.	dB	0.1	0.15
Isolation @ 1550±15 nm	Min.	dB	17	15
Longer Wavelength Channel		nm	1550±15	
Insertion Loss	Max.	dB	0.3	0.5
PDL	Max.	dB	0.1	0.15
Isolation @ 1310±15 nm	Min.	dB	17	15
Operating power	Max.	W	5	
Operating Temperature		°C	-40 to +200	
Storage Temperature		°C	-50 to +200	
Package Type		mm	S6	Ø3x54: for bare fiber
Operating Temperature		°C	+200 to +300	
Storage Temperature		°C	+200 to +300	
Fiber Type			High Temperature SMF	
Package Type		mm	M12	7.5x9x62: for bare fiber

## Typical Spectrum



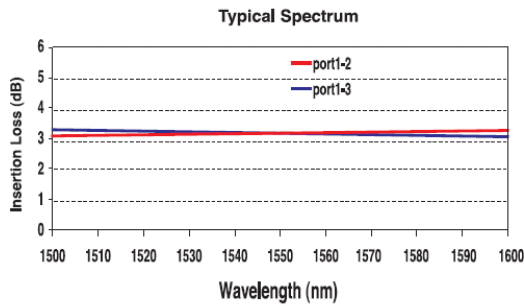
## Ordering Information

H	T	W	D	M								
					Wavelength 5=1310nm/ 1550nm	Structure 1=1x2 2=2x2	O	O	Grade P=Premium A=A grade	Package 5=S6 with 155µm bare fiber pigtail O=M12 with 155µm bare fiber pigtail	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1x2(2x2) High Temperature Single Mode Broadband Splitter



## Product Features

- High Sustained Temperature
- Low PDL
- High Directivity
- Stable and Reliable

## Product Applications

- Aerospace
- Petroleum Service Systems
- Military Applications
- Special Optical Network

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±40	
Insertion Loss	Max. dB	3.4	3.6
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.1	0.15
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +200	
Storage Temperature	°C	-50 to +200	
Package Type	mm	S6	Ø3x54: for bare fiber
Operating Temperature	°C	+200 to +300	
Storage Temperature	°C	+200 to +300	
Fiber Type		High Temperature SMF	
Package Type	mm	M12	7.5x9x62: for bare fiber

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.1	7.4	1.3	8.0
90:10	0.6	10.8	0.8	12.0
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

H	T	S	B	S																																								
Wavelength	4=1550nm	7=1310nm	P=2000nm	S=Specify	Structure	1=1x2	2=2x2	Splitting Ratio	05=99.5:0.5	99=99:1	98=98:2	97=97:3	96=96:4	95=95:5	...	50=50:50	Grade	P=Premium	A=A grade	Package	5=S6 with 155µm bare fiber pigtail	O=M12 with 155µm bare fiber pigtail	Fiber Length	0=0.5m	1=0.75m	2=1.0m	3=1.5m	4=2.0m	S=Specify	Connector	0=None	1=FC/PC	2=FC/SPC	3=FC/APC	4=SC/SPC	5=SC/APC	6=ST	7=FC/UPC	8=SC/UPC	9=MU	A=LC/PC	B=SC/PC	C=LC/UPC	D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# 1x2(2x2) High Temperature Single Mode Narrowband Splitter



## Product Features

- High Sustained Temperature
- Low PDL
- High Directivity
- Stable and Reliable

## Product Applications

- Aerospace
- Petroleum Service Systems
- Military Applications
- Special Optical Network

Specifications		Splitting Ratio: 50:50	
Parameter	Unit	Premium	A grade
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±10	
Insertion Loss	Max. dB	3.4	3.6
Excess Loss	Typ. dB	0.07	0.1
Uniformity	Max. dB	0.6	1.0
PDL	Max. dB	0.05	0.1
Operating power	Max. W	5	
Operating Temperature	°C	-40 to +200	
Storage Temperature	°C	-50 to +200	
Package Type	mm	S6	Ø3x54: for bare fiber
Operating Temperature	°C	+200 to +300	
Storage Temperature	°C	+200 to +300	
Fiber Type		High Temperature SMF	
Package Type	mm	M12	7.5x9x62: for bare fiber

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.1	7.4	1.3	8.0
90:10	0.6	10.8	0.8	12.0
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

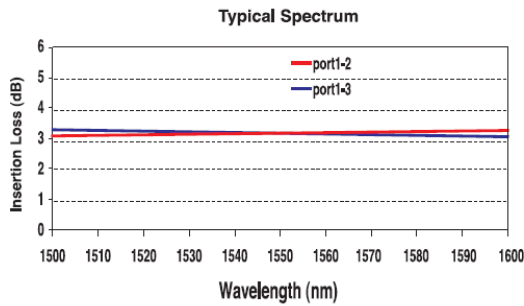
H	T	S	N	S							
Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Length	Connector					
4=1550nm 7=1310nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	P=Premium A=A grade	5=S6 with 155µm bare fiber pigtail O=M12 with 155µm bare fiber pigtail ... S=Specify	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/APC 3=FC/APC 4=SC/APC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

The background of the page is a vibrant, abstract composition of swirling, organic shapes in shades of orange, red, and yellow, resembling flames or a high-temperature plasma. The colors transition from bright yellow at the top and bottom edges to deep red and black in the center, creating a sense of depth and movement.

# **High Power Components**

# High Power 1x2(2x2) Single Mode Broadband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Power Endured
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor

Specifications			Splitting Ratio: 50:50	
Port Configuration			1x2 or 2x2	
Bandwidth		nm	±40	
Insertion Loss	Max.	dB	3.4	
Excess Loss	Typ.	dB	0.05	
Uniformity	Max.	dB	0.6	
PDL	Max.	dB	0.1	
Operating power	Min.	W	5	
	Max.	W	10	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber	
		S12	Ø4x70: for 0.9mm loose tube	
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable	

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.1	7.4	1.3	8.0
90:10	0.6	10.8	0.8	12.0
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

H	P	B	S								
Wavelength	Structure	Splitting Ratio	Package	Fiber Type	Pigtail	Fiber Length	Connector				
1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	A=S11 B=S12 D=M1	1=G652 or Equivalent H=SM1950	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC				

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# High Power 1x2(2x2) Single Mode Narrowband Splitter



## Product Features

- Low PDL
- Low Insertion Loss
- High Power Endured
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Testing System
- Optical Fiber Sensor
- Optical Power Distributor
- EDFA Module

Specifications		Splitting Ratio: 50:50	
Port Configuration		1x2 or 2x2	
Bandwidth	nm	±10	
Insertion Loss	Max. dB	3.4	
Excess Loss	Typ. dB	0.07	
Uniformity	Max. dB	0.6	
PDL	Max. dB	0.1	
Operating power	Min. W	5	
	Max. W	10	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S11	Ø4x60: for bare fiber
		S12	Ø4x70: for 0.9mm loose tube
		M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## Splitting Ratio & Insertion Loss Conversion Table

Splitting Ratio	Maximum Insertion Loss (dB)			
	Premium		A grade	
	Output Port 1	Output Port 2	Output Port 1	Output Port 2
50:50	3.4	3.4	3.6	3.6
60:40	2.5	4.4	2.8	4.8
70:30	1.8	5.6	2.0	6.1
80:20	1.1	7.4	1.3	8.0
90:10	0.6	10.8	0.8	12.0
95:5	0.4	14.6	0.5	18.4
96:4	0.3	16.0	0.4	19.0
97:3	0.3	17.5	0.4	19.5
98:2	0.2	19.0	0.3	20.0
99:1	0.2	21.5	0.3	22.0
99.5:0.5	0.2	23.0	0.3	24.0

## Ordering Information

H	P	N	S								
				Wavelength	Structure	Splitting Ratio	Package	Fiber Type	Pigtail	Fiber Length	Connector
				1=1625nm 2=1590nm 3=1570nm 4=1550nm 5=1480nm 6=1475nm 7=1310nm 8=1064nm R=1030nm 9=980nm A=850nm L=780nm P=2000nm S=Specify	1=1x2 2=2x2	05=99.5:0.5 99=99:1 98=98:2 97=97:3 96=96:4 95=95:5 ... 50=50:50	A=S11 B=S12 D=M1	1=G652 or Equivalent 5=980-20 6=HI1060 7=HI1060 FLEX 8=980-16 9=HI780C ... S=Specify	S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.  
3. All data are measured at central wavelength at room temperature.

# High Power 980nm/C Band WDM



## Product Features

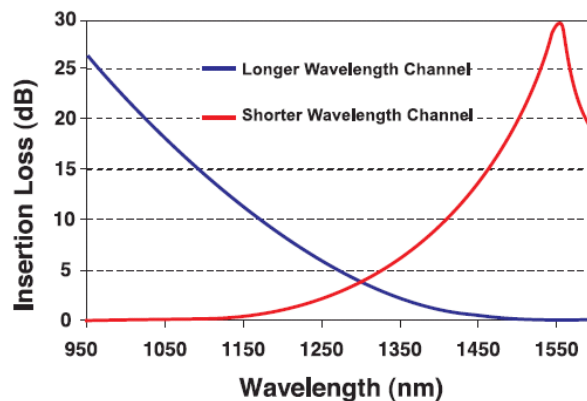
- Ultra-Low PDL
- Ultra-Low Insertion Loss
- High Isolation
- High Return Loss
- High Power Endured
- Stable and Reliable

## Product Applications

- Optical Communication System
- Optical Fiber Amplifier
- EDFA Module

Specifications			980nm/C Band	
Shorter Wavelength Channel		nm	960 to 990	
Insertion Loss	Max.	dB	0.1	
PDL	Max.	dB	0.05	
Isolation @ C band	Min.	dB	20	
Longer Wavelength Channel		nm	C Band (1528 to 1565)	
Insertion Loss	Max.	dB	0.1	
PDL	Max.	dB	0.05	
Isolation @ 960 to 990 nm	Min.	dB	20	
Operating power	Min.	W	5	
	Max.	W	10	
Operating Temperature		°C	-40 to +85	
Storage Temperature		°C	-50 to +85	
Package Type		mm	S11	Ø4x60: for bare fiber
			S12	Ø4x70: for 0.9mm loose tube
			M1	9x16x90: for 0.9mm loose tube or 2mm cable or 3mm cable

## 980nm/C Band WDM Typical Spectrum



## Ordering Information

H	P	S	W								
Wavelength 1=980nm/ C Band	Structure 1=1x2 2=2x2	Package A=S11 B=S12 D=M1	Fiber Type 5=980-20 7=H11060 FLEX 8=980-16	Pigtail S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=L.C/PC B=SC/PC C=L.C/UPC D=L.C/APC					

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# Micro-Optical Components



# 4 Port 1064nm Polarization Maintaining Optical Circulator



## Product Features

- High Isolation
- Low Insertion Loss
- High Extinction Ratio
- Excellent Stability and Reliability

## Product Applications

- Research
- Fiber Sensors
- Coherent Detecting
- Fiber Optic instruments

## Specifications

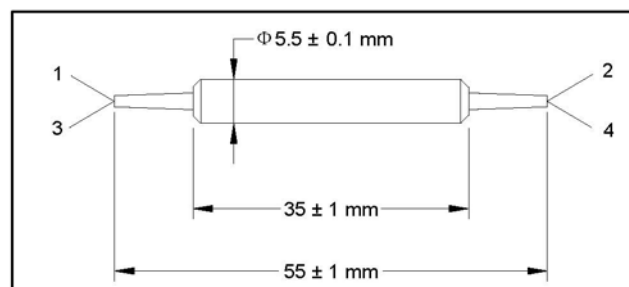
Parameter	Unit	Type A	Type B
Central Wavelength ( $\lambda_c$ )	nm	1064	
Insertion Loss, $\lambda_c$ , 23°C	Typ. dB	3.8	2.4
Insertion Loss*, $\lambda_c$	Max. dB	4.2	2.8
Isolation, $\lambda_c$ , 23°C	Typ. dB	52	30
Isolation, $\lambda_c$ , 23°C	Min. dB	45	20
Extinction Ratio	Min. dB	20	20
Directivity (1→3, 2→4)	Min. dB	50	
Return Loss	Min. dB	50	
Optical Power (Continuous Wave)	Max. mW	300	
Tensile Load	Max. N	5	
Operating Temperature	°C	-5 to +50	
Storage Temperature	°C	-40 to +85	

IL is 0.5 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

The routing path: Type A: 1→2, 2→3, 3→4; Type B: 1→2, 2→3, 3→4, 4→1

\*All temperature.

## Package Dimensions



## Ordering Information

P	M	O	C	I	R						
Port	Type	Package	Pigtail	Fiber Type	Fiber Length	Connector					
F=4 port	A=Type A B=Type B	C= Ø5.5 x L35	S=250µm bare fiber pigtail M=0.9mm loose tube	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC					

Note: All specifications are before connectors and are subject to change without notice.



## 4 Port Polarization-Insensitive Optical Circulator



### Product Features

- High Isolation
- Low Insertion Loss
- Polarization-Insensitive
- High Stability and Reliability

### Product Applications

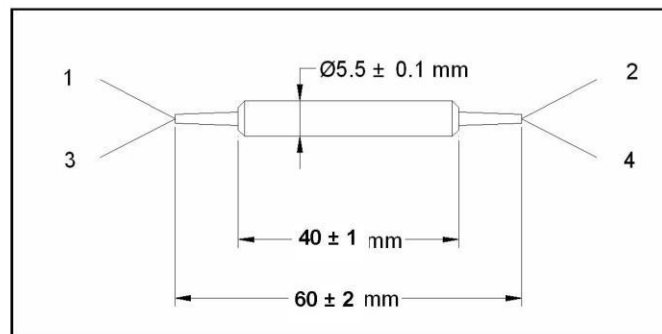
- DWDM Systems
- High Speed Systems
- Bi-Direction Communication Systems

### Specifications

Transmitting Direction			1→2, 2→3, 3→4
Central Wavelength ( $\lambda_c$ )		nm	1310 or 1550
Operating Wavelength Range		nm	$\pm 20$
Insertion Loss	Typ.	dB	0.7
	Max.	dB	0.9
Isolation, 23°C	Min.	dB	38
Crosstalk	Min.	dB	50
Return Loss	Min.	dB	50
Polarization Dependent Loss	Max.	dB	0.2
Polarization Mode Dispersion	Max.	ps	0.1
Optical Power (Continuous Wave)	Max.	mW	300
Tensile Load	Max.	N	5
Operating Temperature		°C	0 to +70
Storage Temperature		°C	-40 to +85

IL is 0.3 dB higher and RL is 5 dB lower for each connector added.

### Package Dimensions



### Ordering Information

<b>P</b>	<b>I</b>	<b>O</b>	<b>C</b>	<b>I</b>	<b>R</b>							
						Wavelength	Port	Package	Pigtail	Fiber Type	Fiber Length	Connector
						4=1550nm 7=1310nm	F=4 port	D= Ø5.5 x L40	S=250µm bare fiber pigtail M=0.9mm loose tube	S=G652 or Equivalent	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC

Note: All specifications are before connectors and are subject to change without notice.

# 1064nm Polarization Maintaining Isolator



## Product Features

- High Isolation
- Low Insertion Loss
- High Return Loss
- Epoxy Free Optical Path

## Product Applications

- Polarization Maintaining Fiber Amplifier
- Fiber Lasers
- Optical Communication System
- Fiber optic LAN Systems

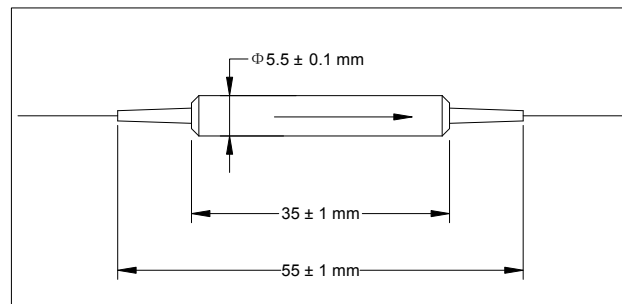
## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Stage		Single Stage		Dual Stage	
Central Wavelength ( $\lambda_c$ )	nm	1064			
Extinction Ratio	Min. dB	20	18	20	18
Peak Isolation	Typ. dB	38	36	55	52
Isolation, $\lambda_c$ , 23°C	Min. dB	35	32	45	42
Insertion Loss, $\lambda_c$ , 23°C	Typ. dB	1.5	1.6	2.4	2.6
Insertion Loss, $\lambda_c^*$	Max. dB	2.0	2.2	3.4	3.6
Return Loss (Input/Output)	Min. dB	55/50			
Optical Power (Continuous Wave)	Max. mW	300			
Tensile Load	Max. N	5			
Operating Temperature	°C	-5 to +50			
Storage Temperature	°C	-40 to +85			

IL is 0.5 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

\*All Temperature

## Package Dimensions



## Ordering Information

P	M	I	S														
Stage	D=Dual S=Single	Wavelength	8=1064nm	Grade	P=Premium A=A grade	Package	C= $\Phi 5.5 \times L35$	Pigtail	S=250 $\mu$ m bare fiber pigtail M=0.9mm loose tube	Fiber Type	E=Panda Fiber	Fiber Length	0=0.5m 1=0.75m 2=1.0m	Connector	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC	Working Axis	F=Fast axis blocked B=Both axes working

Note: All specifications are before connectors and are subject to change without notice.

# 1064nm Polarization Maintaining Optical Circulator



## Product Features

- High Isolation
- Low Insertion Loss
- High Extinction Ratio
- Excellent Stability and Reliability

## Product Applications

- Research
- Fiber Sensors
- Coherent Detecting
- Fiber Optic instruments

## Specifications

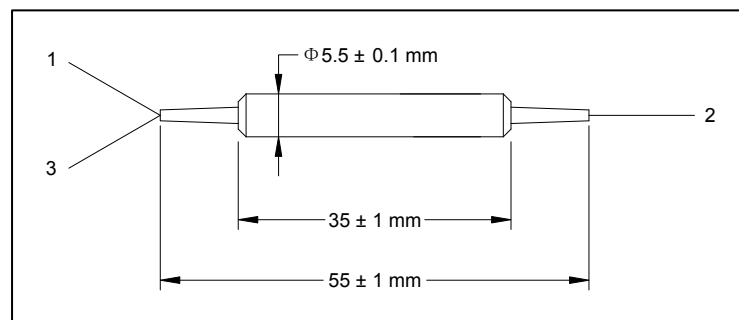
Parameter	Unit	Type A	Type B
Central Wavelength ( $\lambda_c$ )	nm	1064	
Insertion Loss, $\lambda_c$ , 23°C	Typ. dB	3.4	1.8
Insertion Loss*	Max. dB	4.0	2.1
Isolation, $\lambda_c$ , 23°C	Typ. dB	52	30
Isolation, $\lambda_c$ , 23°C	Min. dB	45	22
Extinction Ratio	Min. dB	20	
Crosstalk	Min. dB	50	
Return Loss	Min. dB	50	
Optical Power (Continuous Wave)	Max. mW	300	
Tensile Load	Max. N	5	
Operating Temperature	°C	-5 to +50	
Storage Temperature	°C	-40 to +85	

IL is 0.5 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

The routes incoming signals from Port 1 to Port 2, and incoming Port 2 signals to Port 3.

\*All temperature.

## Package Dimensions



## Ordering Information

P	M	O	C	I	R	Wavelength	Type	Package	Pigtail	Fiber Type	Fiber Length	Connector
						8=1064nm	A=Type A B=Type B	C= $\Phi 5.5 \times L35$	S=250 $\mu$ m bare fiber pigtail M=0.9mm loose tube	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC

Note: All specifications are before connectors and are subject to change without notice.

# 1064nm Polarization-Insensitive Isolator



## Product Features

- High Isolation
- Low Insertion Loss
- High Return Loss
- Epoxy Free Optical Path

## Product Applications

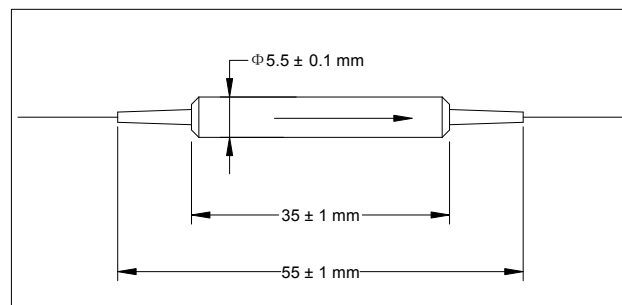
- EDFAs
- Fiber Lasers
- DWDM Systems
- Fiber Optics Communication Equipments

## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Stage		Single Stage		Dual Stage	
Central Wavelength ( $\lambda_c$ )	nm	1064			
Peak Isolation	Typ. dB	40	38	55	52
Isolation, $\lambda_c$ , 23°C	Min. dB	35	32	45	42
Insertion Loss, $\lambda_c$ , 23°C	Typ. dB	1.5	1.6	2.4	2.6
Insertion Loss, $\lambda_c$ , -5°C to 50°C	Max. dB	2.0	2.2	3.4	3.6
Polarization Dependent Loss, 23°C	Max. dB	0.1	0.15	0.1	0.15
Return Loss (Input/Output)	Min. dB	55/50			
Optical Power (Continuous Wave)	Max. mW	300			
Tensile Load	Max. N	5			
Operating Temperature	°C	-5 to +50			
Storage Temperature	°C	-40 to +85			

IL is 0.5 dB higher, RL is 5 dB lower for each connector added.

## Package Dimensions



## Ordering Information

P	I	I	S				O																	
Stage	D=Dual	S=Single	Wavelength	8=1064nm	Grade	P=Premium	A=A grade	Package	C= Ø5.5 x L35	Pigtail	S=250µm bare fiber pigtail	M=0.9mm loose tube	Fiber Type	H=H11060 fiber	Fiber Length	0=0.5m	1=0.75m	2=1.0m	Connector	0=None	3=FC/APC	5=SC/APC	7=FC/UPC	8=SC/UPC

Note: All specifications are before connectors and are subject to change without notice.

# Polarization Maintaining Isolator



## Product Features

- High Isolation
- Low Insertion Loss
- High Return Loss
- Epoxy Free Optical Path

## Product Applications

- Polarization Maintaining Fiber Amplifier
- Fiber Lasers
- Optical Communication System
- Fiber optic LAN Systems

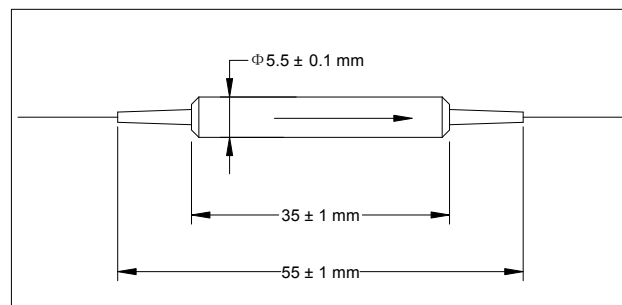
## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Stage		Single Stage		Dual Stage	
Central Wavelength ( $\lambda_c$ )	nm	1310, 1480 or 1550			
Extinction Ratio	Min. dB	20	18	20	18
Peak Isolation	Typ. dB	42	40	58	55
Isolation, $\lambda_c \pm 10\text{nm}$ , 23°C	Min. dB	30	28	46	45
Insertion Loss, $\lambda_c \pm 20\text{nm}$ , 23°C	Typ. dB	0.4	0.5	0.5	0.7
Insertion Loss, $\lambda_c \pm 20\text{nm}^*$	Max. dB	0.6	0.7	0.7	0.9
Return Loss (Input/Output)	Min. dB	55/50			
Optical Power (Continuous Wave)	Max. mW	300			
Tensile Load	Max. N	5			
Operating Temperature	°C	-5 to +70			
Storage Temperature	°C	-40 to +85			

IL is 0.3 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

\*All Temperature

## Package Dimensions



## Ordering Information

P	M	I	S									
Stage	Wavelength	Grade	Package	Pigtail	Fiber Type	Fiber Length	Connector	Working Axis				
D=Dual S=Single	4=1550nm 5=1480nm 7=1310nm	P=Premium A=A grade	C= Ø5.5 x L35	S=250µm bare fiber pigtail M=0.9mm loose tube	E=Panda Fiber	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC	F=Fast axis blocked B=Both axes working				

Note: All specifications are before connectors and are subject to change without notice.

# Polarization Maintaining Optical Circulator

## Product Features

- High Isolation
- Low Insertion Loss
- High Extinction Ratio
- Excellent Stability and Reliability



## Product Applications

- Research
- Fiber Sensors
- Coherent Detecting
- Fiber Optic instruments

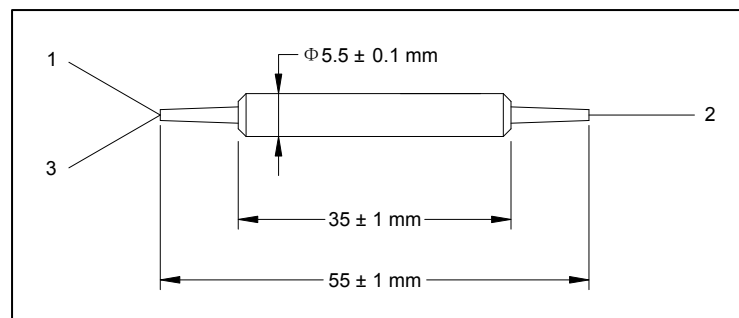
## Specifications

Parameter	Unit	Type A	Type B
Central Wavelength ( $\lambda_c$ )	nm	1310 or 1550	
Operating Wavelength Range	nm	$\pm 30$	$\pm 20$
Insertion Loss, $\lambda_c$ , 23°C	Typ.	0.7	0.6
	Max.	0.9	0.8
Peak Isolation	Typ.	52	40
Isolation, $\lambda_c$ , 23°C	Typ.	46	30
Isolation, 23°C	Min.	40	20
Extinction Ratio	Min.	22	20
Crosstalk	Min.	50	
Return Loss	Min.	50	
Optical Power (Continuous Wave)	Max.	300	
Tensile Load	Max.	5	
Operating Temperature	°C	-5 to +70	
Storage Temperature	°C	-40 to +85	

IL is 0.3 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

The routes incoming signals from Port 1 to Port 2, and incoming Port 2 signals to Port 3.

## Package Dimensions



## Ordering Information

P	M	O	C	I	R						
Wavelength	Type	Package	Pigtail	Fiber Type	Fiber Length	Connector					
4=1550nm 7=1310nm	A=Type A B=Type B	C= $\varnothing$ 5.5 x L35	S=250 $\mu$ m bare fiber pigtail M=0.9mm loose tube	E=Panda fiber	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC					

Note: All specifications are before connectors and are subject to change without notice.

# Polarization Maintaining Tap Isolator



## Product Features

- Low Insertion Loss
- High Extinction Ratio
- High Return Loss

## Product Applications

- Fiber Amplifier
- Optical Communication System

## Specifications

Stage			Single Stage	Dual Stage
Central Wavelength ( $\lambda_c$ )		nm	1310, 1480 or 1550	
Operating Wavelength Range		nm	$\pm 15$	
Excess Loss	Max.	dB	0.8	0.9
Extinction Ratio	Min.	dB	20	20
Peak Isolation	Typ.	dB	40	55
Isolation, $\lambda_c \pm 10\text{nm}$ , 23°C	Min.	dB	30	45
Return Loss	Min.	dB	50	
Optical Power (Continuous Wave)	Max.	mW	300	
Tensile Load	Max.	N	5	
Directivity		dB	50	
Operating Temperature		°C	-5 to +70	
Storage Temperature		°C	-40 to +85	

IL is 0.3 dB higher, RL is 5 dB lower, and ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

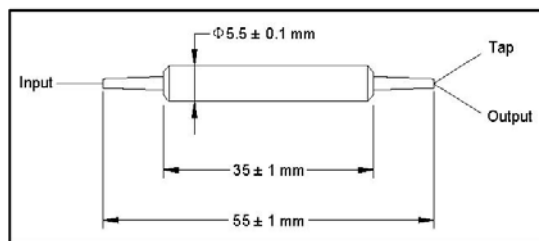
The optical path is aligned to slow axis and fast axis is blocked.

## Splitting Ratio & Its Tolerance

Splitting Ratio	Maximum Splitting Ratio Tolerance (%)
1/99	$\pm 0.2$
2/98	$\pm 0.4$
4/96	$\pm 0.8$
5/95	$\pm 1.0$
90/10	$\pm 2.0$

Fiber Type	Tap Port
Type 1	SM28e or Equivalent Fiber
Type 2	Panda Fiber

## Package Dimensions



## Ordering Information

P	M	T	I							
Stage	Wavelength	Splitting Ratio	Pigtail	Fiber Type	Fiber Length	Connector	Working Axis			
D=Dual S=Single	4=1550nm 5=1480nm 7=1310nm	01=1:99 02=2:98 04=4:96 05=5:95 10=90:10	S=250 $\mu$ m bare fiber pigtail M=0.9mm loose tube	1=Type 1 2=Type 2	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC	F=Fast axis blocked			

Note: All specifications are before connectors and are subject to change without notice.



# Polarization-Insensitive Isolator



## Product Features

- High Isolation
- Low Insertion Loss
- High Return Loss
- Epoxy Free Optical Path

## Product Applications

- EDFAs
- Fiber Lasers
- DWDM Systems
- Fiber Optics Communication Equipments

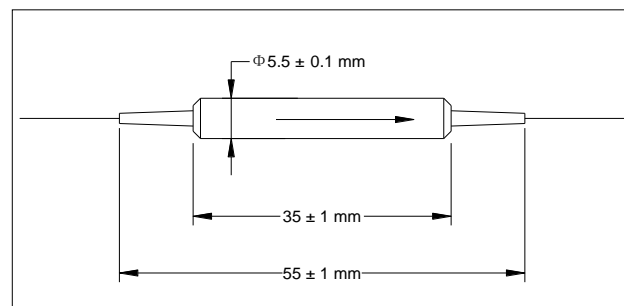
## Specifications

Parameter	Unit	Premium	A grade	Premium	A grade
Stage		Single Stage		Dual Stage	
Central Wavelength ( $\lambda_c$ )	nm	1310, 1480 or 1550			
Peak Isolation	Typ. dB	42	40	58	55
Isolation, $\lambda_c \pm 10\text{nm}$ , 23°C	Min. dB	30	29	46	45
Insertion Loss, $\lambda_c$ , 23°C	Typ. dB	0.35	0.5	0.4	0.6
Insertion Loss, $\lambda_c \pm 20\text{nm}^*$	Max. dB	0.5	0.7	0.6	0.9
Polarization Dependent Loss, 23°C	Max. dB	0.05	0.1	0.05	0.15
Polarization Mode Dispersion	Max. ps	0.20	0.25	0.05	0.07
Return Loss (Input/Output)	Min. dB	60/55			
Optical Power (Continuous Wave)	Max. mW	300			
Tensile Load	Max. N	5			
Operating Temperature	°C	-5 to +70			
Storage Temperature	°C	-40 to +85			

IL is 0.3 dB higher, RL is 5 dB lower for each connector added.

\*All Temperature

## Package Dimensions



## Ordering Information

P	I	I	S																										
Stage	D=Dual	S=Single	Wavelength	4=1550nm	5=1480nm	7=1310nm	Grade	P=Premium	A=A grade	PMD	1=0.05 ps max.	2=Refer to above spec.	Package	C= Ø5.5 x L.35	Pigtail	S=250µm bare fiber pigtail	M=0.9mm loose tube	Fiber Type	S=G652 or Equivalent	Fiber Length	0=0.5m	1=0.75m	2=1.0m	Connector	0=None	3=FC/APC	5=SC/APC	7=FC/UPC	8=SC/UPC

Note: All specifications are before connectors and are subject to change without notice.

# Polarization-Insensitive Optical Circulator



## Product Features

- Wide Band High Isolation Low PDL
- Low Insertion Loss
- Polarization-Insensitive
- High Stability and Reliability
- Compact In-Line Package
- Epoxy Free Optical Path

## Product Applications

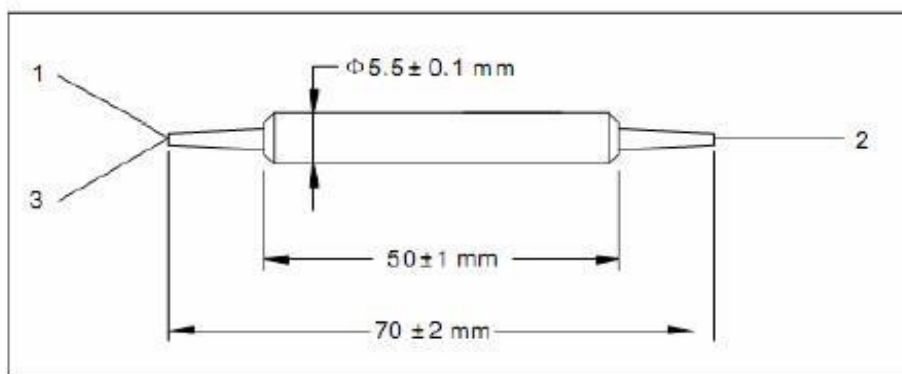
- Optical Amplifier
- Metro Area Network
- Wavelength Add / Drop
- Dispersion Compensation
- Bi-Direction Communication

## Specifications

Configuration			Port 1 to Port 2 to Port 3
Central Wavelength ( $\lambda_c$ )	nm		1310 or 1550
Operating Wavelength Range	nm		$\pm 20$
Insertion Loss	Typ.	dB	0.7
	Max.	dB	0.8
Isolation, 23°C	Min.	dB	45
Crosstalk	Min.	dB	50
Return Loss	Min.	dB	55
Polarization Dependent Loss	Max.	dB	0.1
Polarization Mode Dispersion	Max.	ps	0.1
Optical Power (Continuous Wave)	Max.	mW	300
Tensile Load	Max.	N	5
Operating Temperature	°C		-5 to +70
Storage Temperature	°C		-40 to +85

IL is 0.3 dB higher and RL is 5 dB lower for each connector added.

## Package Dimensions



## Ordering Information

P	I	O	C	I	R							
						Wavelength	Port	Package	Pigtail	Fiber Type	Fiber Length	Connector
						4=1550nm 7=1310nm	3=3 port	D= Ø5.5 x L50	S=250µm bare fiber pigtail M=0.9mm loose tube	S=G652 or Equivalent	0=0.5m 1=0.75m 2=1.0m	0=None 3=FC/APC 5=SC/APC 7=FC/UPC 8=SC/UPC

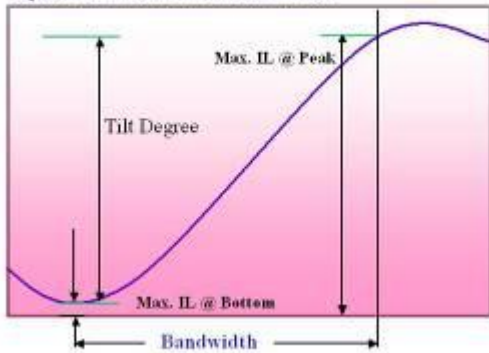
Note: All specifications are before connectors and are subject to change without notice.

# Special Products

The image is a vertical graphic with a blue gradient background. In the upper half, there is a stylized world map in a lighter blue shade. Overlaid on the map and extending across the entire image are several glowing white arcs and nodes, resembling a network or data flow diagram. The arcs connect various points across the globe, with some nodes appearing as bright white dots. The overall aesthetic is modern and technological.

# Fused Single Mode Fiber Tilt Filter

Optical Performance Definition



## Product Features

- Low PDL
- Low PMD
- Low Insertion Loss
- Stable and Reliable

## Product Applications

- Optical Amplification
- Optical Testing System
- Optical Module
- FTTx

## Specifications

Parameter	Unit	Premium	A grade
Port Configuration		1x1	
Bandwidth	nm	+/-15, +/-20, +/-40nm	
Tilt Degree	Typ.	0.5, 1, 2, 3, 4, 5	
Operating power	Max.	2	
Operating Temperature	°C	-40 to +85	
Storage Temperature	°C	-50 to +85	
Package Type	mm	S7	Ø3x60: for bare fiber

## Performance Table

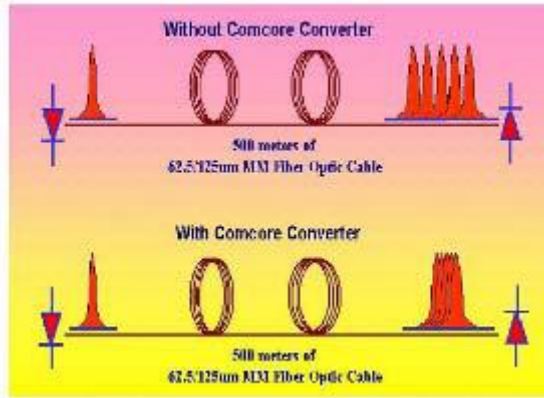
Tilt Degree (dB)	Maximum Insertion Loss (dB)					
	Premium			A grade		
	Max IL (dB) at Bottom	Max IL (dB) at Peak	Tolerance (dB)	Max IL (dB) at Bottom	Max IL (dB) at Peak	Tolerance (dB)
0.5	0.1	0.6	+/-0.1	0.15	0.7	+/-0.2
1.0	0.2	1.15	+/-0.2	0.25	1.3	+/-0.3
2.0	0.3	2.3	+/-0.25	0.4	2.4	+/-0.5
3.0	0.5	3.4	+/-0.35	0.6	3.6	+/-0.6
4.0	0.6	4.5	+/-0.5	0.7	4.7	+/-0.7
5.0	0.7	5.6	+/-0.6	0.9	5.8	+/-0.8

## Ordering Information

S	T	F									
			Wavelength	Bandwidth	Tilt Degree	Tilt Direction	Grade	Package	Fiber Type	Fiber Length	Connector
			2=1590nm	1= ± 15nm	05=0.5dB	P=Positive	P=Premium	6=S7 with	1=G652 or	0=0.5m	0=None
			3=1570nm	2= ± 20nm	10=1.0dB	N=Negative	A=A grade	250µm bare	Equivalent	1=0.75m	
			4=1550nm	3= ± 30nm	20=2.0dB			fiber		2=1.0m	
			5=1480nm	4= ± 40nm	30=3.0dB					S=Specify	
			6=1475nm		40=4.0dB						
			7=1310nm		50=5.0dB						
			P=2000nm								
			S=Specify								

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# SM-MM Broadband Converter



## Features

- ◆ Centralized Cladding Splicing
- ◆ Permanent Splice
- ◆ Low Splicing Loss
- ◆ Automatically-Spliced

## Benefits

- ◆ Easy to Use
- ◆ Install Any Connectors
- ◆ Avoid Differential Mode Delay(DMD)
- ◆ Fits Existing Cabling Scheme

## Specifications

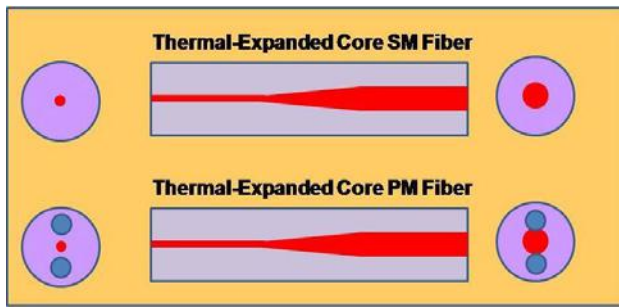
Parameter	Unit	Premium	A grade
Bandwidth	nm	All Wavelength	
Insertion Loss	Max. dB	0.5	1.0
Operating Power	Max. W	5	
Package Type	mm	S11= Ø3x70 / M1=9x16x90	

## Ordering Information

S	M	M	M	O	O							
						Pigtail	Package	Fiber Length	Input Fiber	Output Fiber	Input	Output
						S=250µm bare fiber M=0.9mm loose tube L=3mm cable R=2mm cable	A=S11 D=M1	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	1=G652 or Equivalent	2=50/125µm 3=62.5/125µm	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC	0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC

Note: All specifications are before connectors and are subject to change without notice.

# Thermal Expanded Single Core Fiber



## Product Features

- Low Excess Loss
- Large Expanded Field
- More Tolerance for Alignment

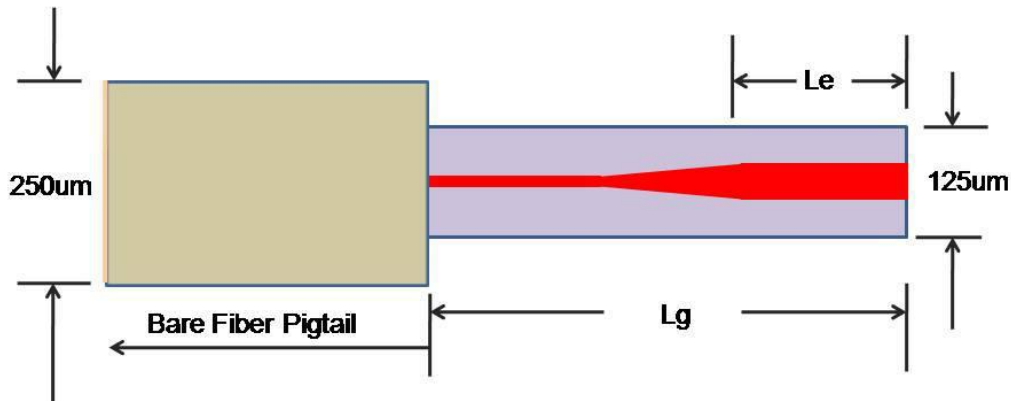
## Product Applications

- Low Loss Splicing Point for Different Fibers
- Stable Fiber Alignment
- High Power Connector Pigtails
- High Coupling Efficient to Laser

Specifications			
Parameter		Unit	
Excess Loss	Max.	dB	0.1
Excess Loss	Typ.	dB	0.04
Expanded Core Length (Le)	Min.	mm	2.0
Available Polishing Length	Min.	mm	0.5
Mode Filed Diameter Increase	Typ.	%	100
Glass Fiber Length (Lg)	Min.	mm	8

Glass length (Lg) should be 3mm longer than expand length (Le).

## The Structure for Thermal-Expanded Core Fiber



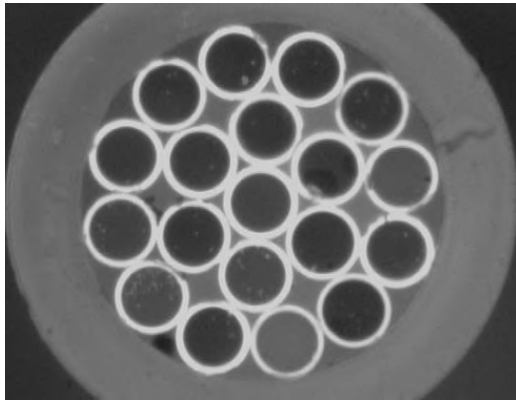
## Ordering Information

T	E	C								
Mode Filed Increase 1=100% 2=200%	Glass Length, Lg 04=4mm 05=5mm 06=6mm 07=7mm ..... 20=20mm	Expand Length, Le 02=2.0mm 03=3.0mm 04=4.0mm ..... 10=10.0mm	Fiber Type 1=C652 or Equivalent 2=HI1060 3=HI1060 FLEX 4=980-20 5=980-16 6=HI780C 7=Panda1550 8=Panda980 9=Panda780	Pigtail S=250µm bare fiber M=0.9mm Loose tube L=3mm Cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m S=Specify	Connector (TEC fiber) 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC E=FC Ferrule F=LC Ferrule G=FA	Connector (Normal fiber) 0=None 1=FC/PC 2=FC/SPC 3=FC/APC 4=SC/SPC 5=SC/APC 6=ST 7=FC/UPC 8=SC/UPC 9=MU A=LC/PC B=SC/PC C=LC/UPC D=LC/APC E=FC Ferrule F=LC Ferrule G=FA			

Note: All specifications are before connectors and are subject to change without notice.



# Fiber Optic Bundles



## Product Features

- High Power Transfer Efficiency
- Wavelength Insensitivity
- High Power Handling
- Custom Configurations Available

## Product Applications

- High Power All-Fiber Lasers
- High Power Fiber Amplifiers
- Medical
- Defense

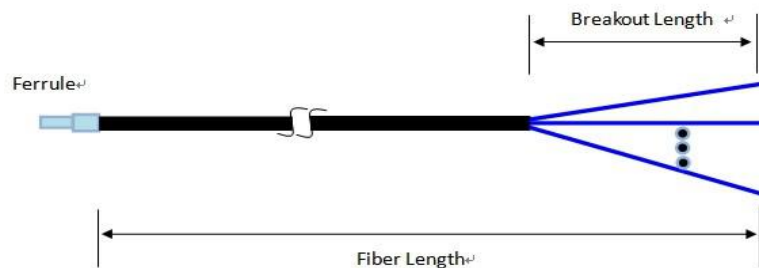
## Specifications

Parameter	Unit		
Fiber Number			2, 3, 4, 7, 19, 37, 61
Transfer Efficiency	Typ.	%	98
Operating Power	Max.	W	5
Operating Temperature			-50 to +75
Storage Temperature			-50 to +85

## Physical View



## Diagram



## Ordering Information

F	O	B	O	O	O	O					
Fiber Number	Fiber Type	Fiber Length	Breakout Length	Connector							
1=2-Fiber	1=105/125µm (NA=0.22)	1=1.0m	1=15cm	0=None							
2=3-Fiber	2=62.5/125µm	2=1.5m	2=25cm	1=FC/PC							
3=4-Fiber	3=50/125µm	S=Specify	3=35cm	2=ST							
4=7-Fiber	4=Plastic fiber		S=Specify	3=ST/PC							
5=19-Fiber	5=G625 or Equivalent			S=Specify							
6=37-Fiber	S=Specify										
7=61-Fiber											
S=Specify											

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.



# Clad Power Stripper



## Product Features

- Low Insertion Loss
- High Power Handling
- Customer Configurations Available

## Product Applications

- Optical Amplification
- Optical Fiber laser

## Specifications

Parameter	Unit	
Center Wavelength(nm)	nm	980,1064,1550
Bandwidth	nm	±15
Operating Wavelength-Pumps	nm	800~1200
Cladding Attenuation	Min. dB	20
Polarization Extinction Ratio	Min. dB	18
Inserting Loss	Max. dB	0.3
Package Type	mm	M2 7.5x18x90

## Ordering Information

C	P	S			O	O	O					
Wavelength	Power				Package	Fiber Type	Pigtail	Fiber Length	Connector			
4=1550nm 8=1064nm 9=980nm S=Specify	A= 10W B= 20W C=30W				E=M2	I=6/125DC K=8/125DC M=10/125DC N=20/125DC O=PM6/125DC P=PM10/125DC Q=PM12/125DC R=PM15/125DC T=PM20/125DC S=Specify	S=250µm bare fiber M=900µm loose tube L=3mm cable R=2mm cable	0=0.5m 1=0.75m 2=1.0m S=Specify	0=None			

Note: 1. Central Wavelength can be customized for different applications.  
2. All specifications are before connectors and are subject to change without notice.

# Plastic Fiber Couplers



# 1x2 (2x2) Plastic Fiber Splitter (Mixer)



## Product Features

- Low Insertion Loss
- Good Uniformity
- High Reliability
- Compact Size

## Product Applications

- Data Communication Systems
- LAN
- Optical Entertainment Systems
- Fiber Sensors

Specification			Splitting Ratio: 80:20; 70:30; 50:50	
Parameter	Unit	1x2 or 2x2		
Grade		P	A	
Central Wavelength	nm	650, 850		
Splitting Ratio Tolerance*	Max.	%	±10	±15
Excess Loss	Max.	dB	1.4	1.8
Uniformity	Max.	dB	1.0	1.5
Return Loss**	Min.	dB	30	
Operating Power	Max.	mW	500	
Operating Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001		
Storage Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001		
Package Type	mm	S14: Φ6.0×101 for 2.2mm cable		

\* ±10% is for 50:50 Splitter or Mixer, ±5% for 80:20 and ±6% for 70:30 Splitter or Mixer.  
 \*\* Test at central wavelength only.

## Ordering Information

<b>P</b>	<b>F</b>	<b>S</b>									
			Wavelength A=850nm B=650nm	Structure 1=1x2 2=2x2	Splitting Ratio 80=80:20 70=70:30 50=50:50	Grade P=Premium A=A grade	Package R=S14	Fiber Type B=BH4001 G=GH4001	Pigtail R=2.2 mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 6=ST

Note: 1. All specifications are before connectors and are subject to change without notice.  
 2. Measured under the stable mode condition with LED source.

# 1x3 (3x3) Plastic Fiber Splitter (Mixer)



## Product Features

- Low Insertion Loss
- Good Uniformity
- High Reliability
- Compact Size

## Product Applications

- Data Communication Systems
- LAN
- Optical Entertainment Systems
- Fiber Sensors

## Specifications

Splitting Ratio: 33:33:33\*

Parameter	Unit	1x3 or 3x3	
Grade		P	A
Central Wavelength	nm	650, 850	
Splitting Ratio Tolerance	Max.	%	±6.0
Excess Loss	Max.	dB	1.8
Uniformity	Max.	dB	1.5
Return Loss**	Min.	dB	25
Operating Power	Max.	mW	500
Operating Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Storage Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Package Type	mm	S14: Φ6.0x101 for 2.2mm cable	

\* for other splitting ratio, please contact our sales engineers at sales@comcore.com.

\*\* Test at central wavelength only.

## Ordering Information

P	F	S	Wavelength	Structure	Splitting Ratio	Grade	Package	Fiber Type	Pigtail	Fiber Length	Connector
			A=850nm B=650nm	3=1x3 A=3x3	00=even	P=Premium A=A grade	R=S14	B=BH4001 G=GH4001	R=2.2 mm cable	0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	0=None 6=ST

Note: 1. All specifications are before connectors and are subject to change without notice.  
2. Measured under the stable mode condition with LED source.

# 1x4 (4x4) Plastic Fiber Splitter (Mixer)



## Product Features

- Low Insertion Loss
- Good Uniformity
- High Reliability
- Compact Size

## Product Applications

- Data Communication Systems
- LAN
- Optical Entertainment Systems
- Fiber Sensors

## Specification

Splitting Ratio: 25:25:25:25

Parameter		Unit	1x4 or 4x4	
Grade			P	A
Central Wavelength		nm	650, 850	
Splitting Ratio Tolerance	Max.	%	±6	±9
Excess Loss	Max.	dB	2	2.5
Uniformity	Max.	dB	1.8	2.5
Return Loss*	Min.	dB	30	
Operating Power	Max.	mW	500	
Operating Temperature		°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Storage Temperature		°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Package Type		mm	S16: Φ9.0×127 for 2.2mm cable	

\*\* Test at central wavelength only.

## Ordering Information

P	F	S									
			Wavelength A=850nm B=650nm	Structure 4=1x4 B=4x4	Splitting Ratio 00=even	Grade P=Premium A=A grade	Package T=S16	Fiber Type B=BH4001 G=GH4001	Pigtail R=2.2 mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 6=ST

Note: 1. All specifications are before connectors and are subject to change without notice.  
2. Measured under the stable mode condition with LED source.

# 1x7 (7x7) Plastic Fiber Splitter (Mixer)



## Product Features

- Low Insertion Loss
- Good Uniformity
- High Reliability
- Compact Size

## Product Applications

- Data Communication Systems
- LAN
- Optical Entertainment Systems
- Fiber Sensors

## Specification

## Splitting Ratio: Even

Parameter	Unit	1x7 or 7x7	
Grade		P	A
Central Wavelength	nm	650, 850	
Splitting Ratio Tolerance	Max. %	±3.5	±4.5
Excess Loss	Max. dB	3.8	4.5
Uniformity	Max. dB	1.8	2.3
Return Loss*	Min. dB	30	
Operating Power	Max. mW	1000	
Operating Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Storage Temperature	°C	-55 to +105 for BH4001, -55 to +85 for GH4001	
Package Type	mm	S16: Φ9.0x127 for 2.2mm cable	

\*\* Test at central wavelength only.

## Ordering Information

P	F	S										
			Wavelength A=850nm B=650nm	Structure 7=1x7 B=7x7	Splitting Ratio 00=even	Grade P=Premium A=A grade	Package T=S16	Fiber Type B=BH4001 G=GH4001	Pigtail R=2.2 mm cable	Fiber Length 0=0.5m 1=0.75m 2=1.0m 3=1.5m 4=2.0m S=Specify	Connector 0=None 6=ST	

Note: 1. All specifications are before connectors and are subject to change without notice.  
2. Measured under the stable mode condition with LED source.



# Appendix: Package Size

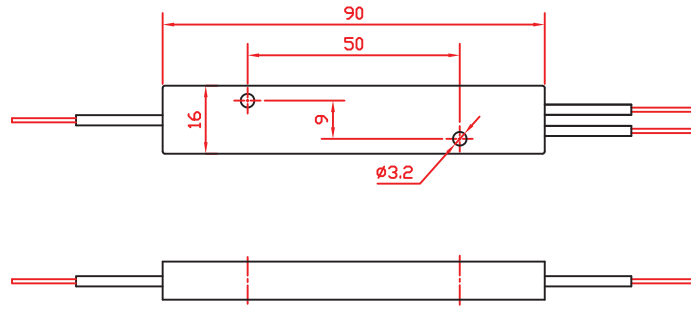
NO	Code	Dimensional Drawing	
0	S1		
1	S2		
2	S3		
3	S4		
4	S5		
5	S6		
6	S7		
7	S8		
8	S9		
9	S10		
A	S11		
B	S12		
C	S13		
R	S14		
T	S15		



No Code Dimensional Drawing

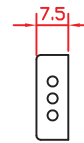
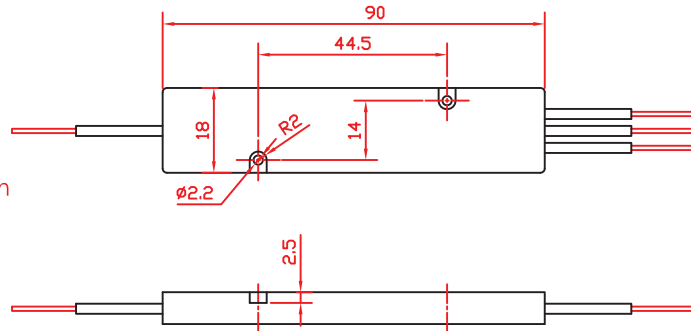
D

M1 (ABS)



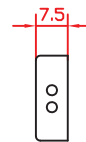
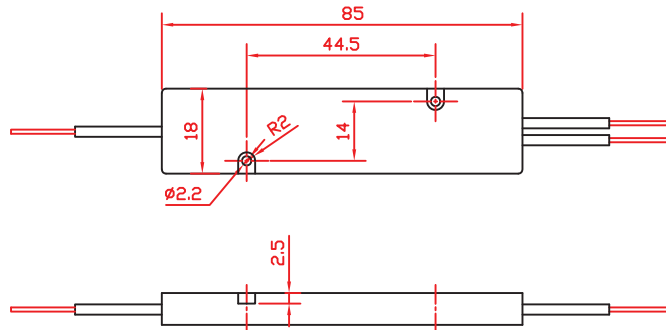
E

M2 Alloy Aluminum



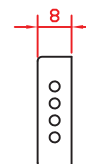
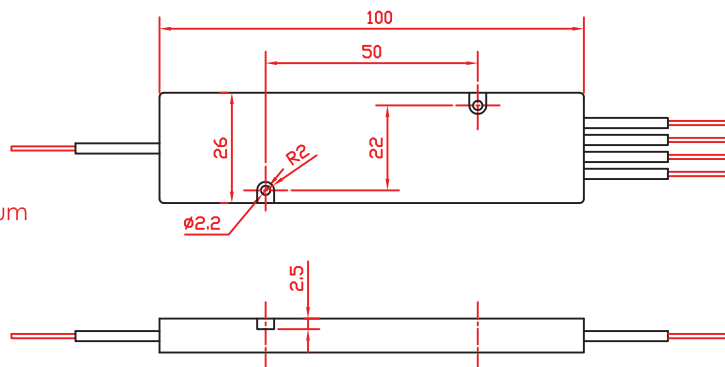
F

M3 Alloy Aluminum



G

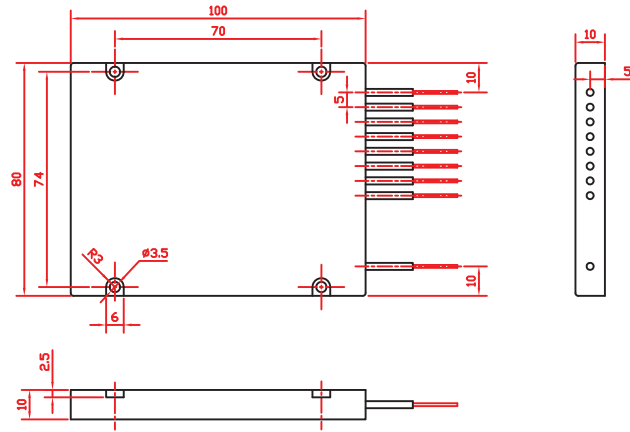
M4 Alloy Aluminum



No Code Dimensional Drawing

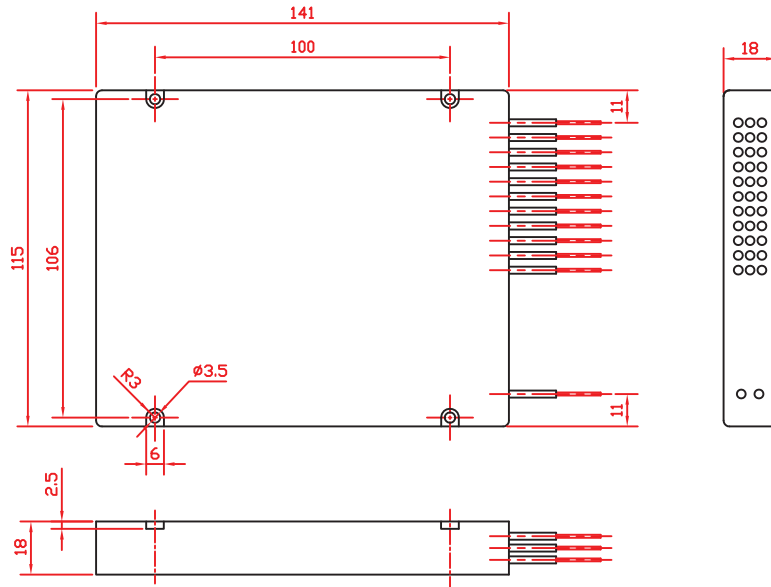
H

M5  
ABS



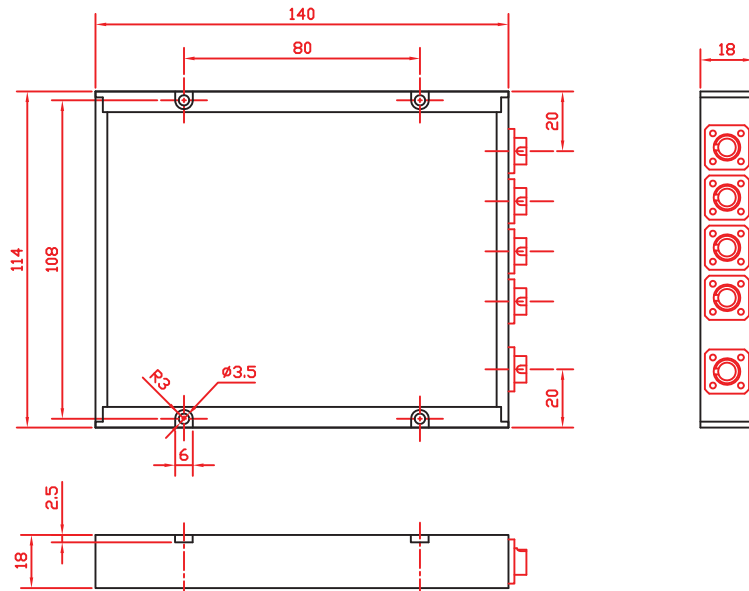
I

M6  
ABS



J

M7  
Alloy Aluminum



No

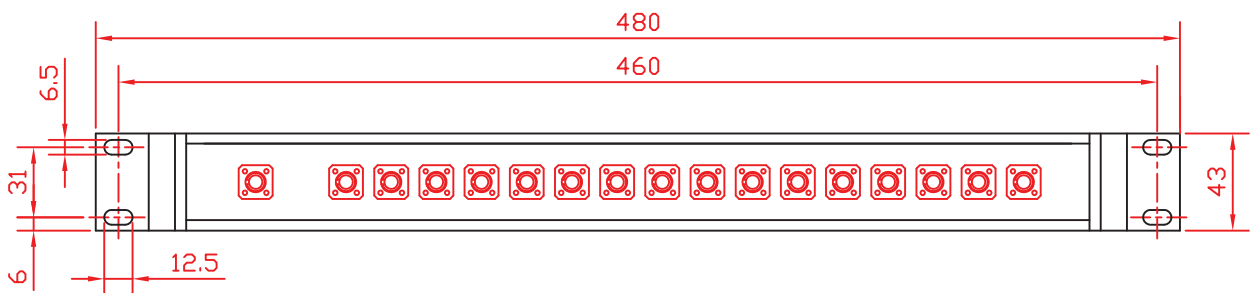
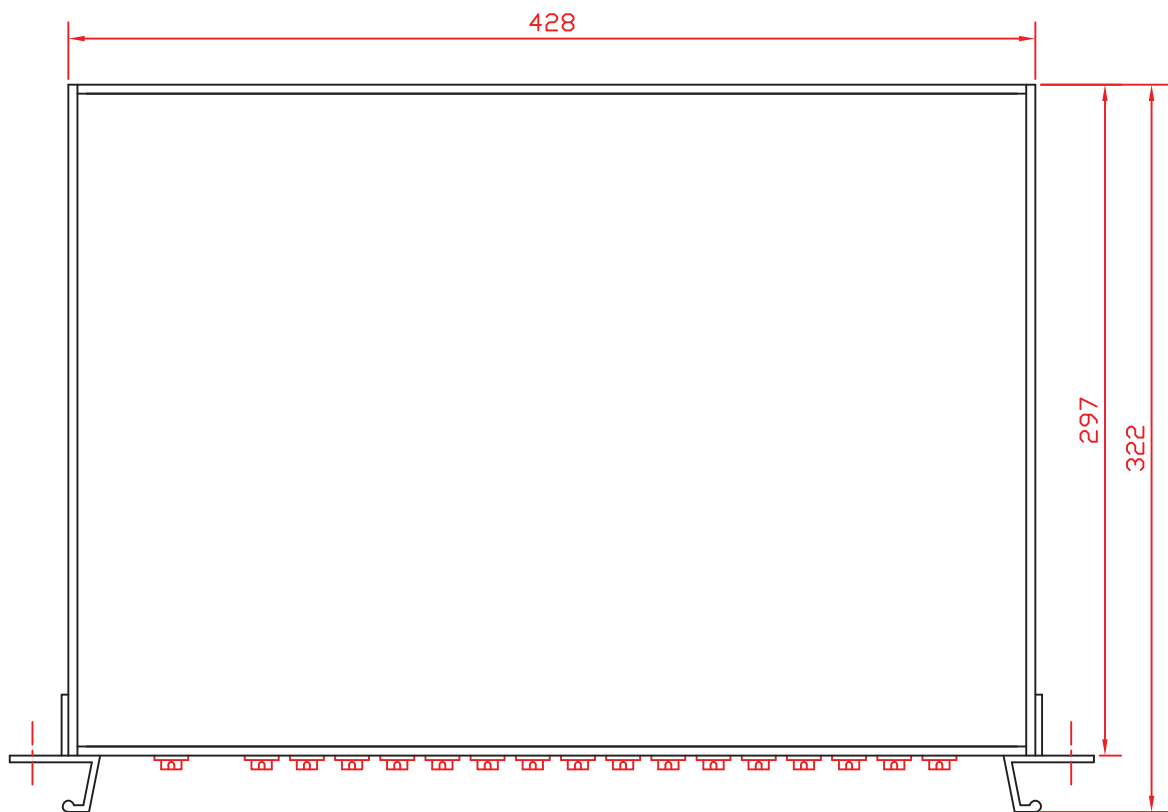
Code

K

M8

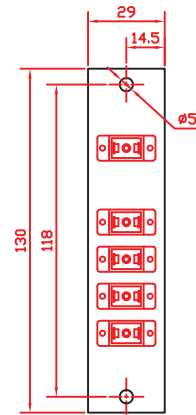
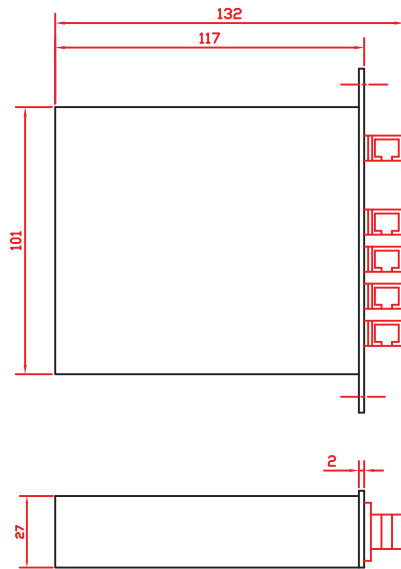
Alloy Aluminum

### Dimensional Drawing

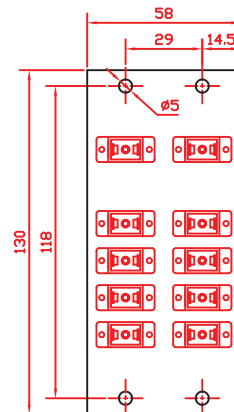
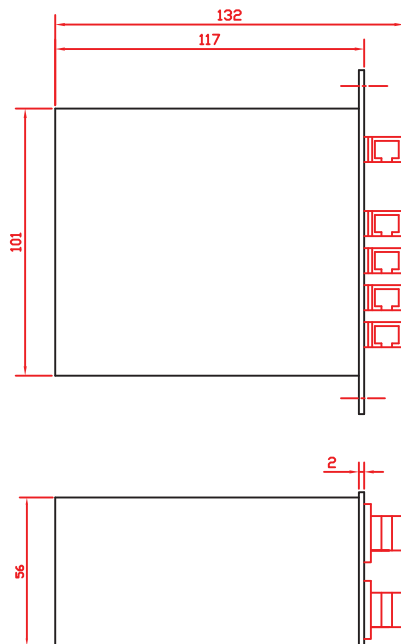


No Code Dimensional Drawing

M LGX M10  
Alloy Aluminum

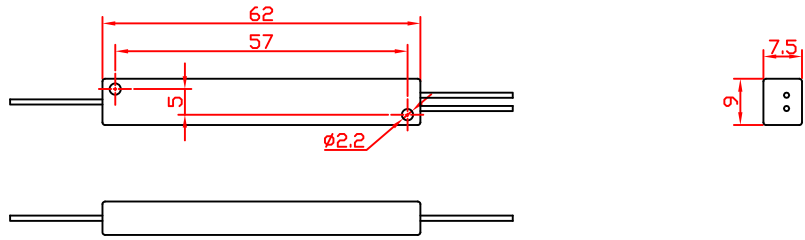


N LGX M11  
Alloy Aluminum

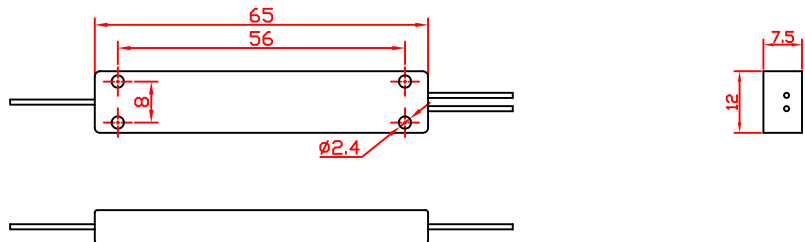


# No Code Dimensional Drawing

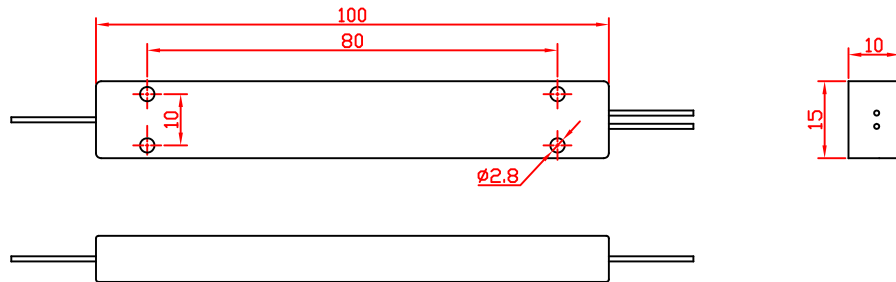
**O** M12  
Alloy Aluminum



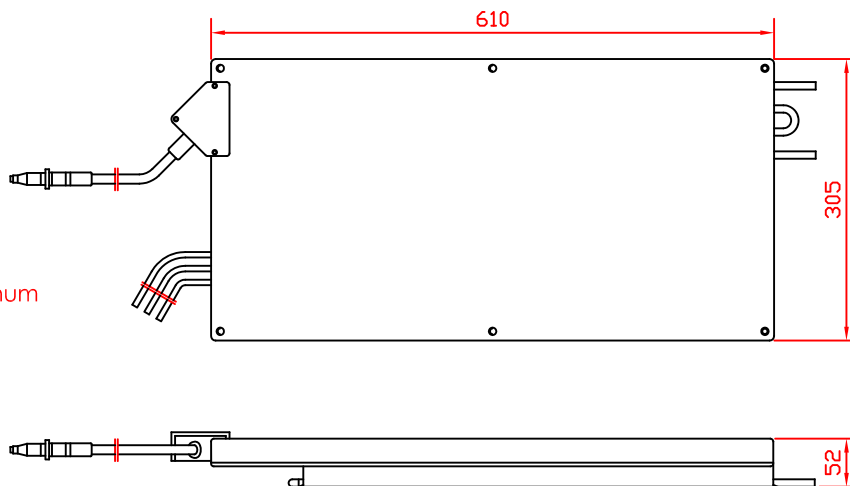
**P** M13  
Alloy Aluminum

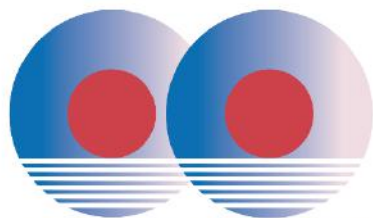


**Q** M14  
Alloy Aluminum



**U** M15  
Alloy Aluminum





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