



# КРАТКИЙ КАТАЛОГ ПРОДУКЦИИ



## **ELITE OPTICAL-ELECTRICAL TECHNOLOGY CO., LTD**

---

Elite Optical-Electrical Technology Co., LTD, ранее известная как Elite Microwave Electronics Co., Ltd была основана в 2004 году. Мы высокотехнологичная компания, разрабатывающая и выпускающая СВЧ продукцию. Компания концентрируется на выпуске твердотельных усилителей мощности, приёмно- передающих модулей и СВЧ подсистем, накапливая опыт в исследованиях, разработке и производстве изделий, многие из которых уже успешно используются в Армии КНР и других стран.

## **ELITE OPTRONICS TECH (H.K) LIMITED**

---

Для предоставления заказчикам более удобного сервиса, мы создали Elite Optronic Tech (H.K.) Ltd. Данная торговая компания предлагает как продукты разработки Elite, так и OEM изделия, произведённые организациями, входящими в CAS, CNGC, CASC, CETC, CVIC и др. заказчикам по всему миру. Чтобы предоставить СВЧ и оптическую продукцию, модули и компоненты, максимально отвечающие требованиям заказчиков, мы установили партнёрские отношения с ведущими институтами КНР и гибко и предельно быстро подходим к каждому конкретному запросу.



# **COMPANY PROFILE**

## GaN IMFET Product List

Model	Freq (GHz)	Psat (dBm)	Gain (dB)	PAE (%)	VDS (V)	Dimension (mm)
GNI011011-P49V28	L-band	49	15	65	28	23x13x5.2
GNI012014-P54V50	1.2-1.4	54	14	60	50	34.2x10
GNI012014-P58V50	1.2-1.4	58	14	60	50	34.2x10
GN010014-P60V50	1.2-1.4	60	14	55	50	TBD (pre-match)
GNI008025-P43-CW	0.8-2.5	20	10	50	32	30.8x27.4x5.0
GNI008020-P47-CW	0.3/0.8-2	47	10	50	28	24.0*17.4*5.0
GNI008020-P50-CW	0.8-2	50	9	45	32	30.8x27.4x5.0
GNI008042-P47-CW	0.8-4.2	47	10	38	28	30.8x27.4x5.0
GNI010020-P51	1-2	51	10	52	32	30.8x27.4x5.0
GNI020030-P50-CW	2-3	50	>40	45	32	30.8x27.4x5.0
GNI020040-P47-CW	2-4	47	10	45	32	24.0*17.4*5.0
GNI020040-P49-CW	2-4	49	12	45	32	30.8x27.4x5.0
GNI020040-P50-CW	2-4	50	10	45	32	30.8x27.4x5.0
GNI020062-P48-CW	2-6.2/2.5-6.4	48	8	40	32	30.8x27.4x5.0
GNI027030-P50G25	2.7-3.0	50	25	60	32	30.8x27.4x5.0
GNI027035-P51V28	2.7-3.5	51	10	45	28	24.2x17.6x5.2
GNI027035-P53V28	2.7-3.5	52	10	50	28	24.2x17.6x5.2
GNI027035-P54V48	2.7-3.5	54	10	50	48	30.8x27.4x5.2
GNI02735-P61V48	2.7-3.1	60	10	50	48	TBD
GNI027040-P50V28	2.7-4.0	50	10	45	28	24.2x17.6x5.2
GNI044048-P53V28	4.4-4.8	53	10	45	28	24.2x17.6x5.2
GNI044048-P53V40	4.4-4.8	53	10	50	40	24.2x17.6x5.2
GNI044050-P51V28	4.4-5.0	51	10	45	28	24.2x17.6x5.2

GNI053059-P51V28	5.3-5.9	51	10	45	28	24.2x17.6x5.2
GNI053059-P53V28	5.3-5.9	53	10	45	50	24.2x17.6x5.2
GNI050060-P51V28	5-6	51	8	45	28	24.2x17.6x5.2
GNI058065-P51V28	5.8-6.8	51	10	45	28	24.2x17.6x5.2
GNI058065-P52V40	5.8-6.8	52	10		40	24.2x17.6x5.2
GNI063073-P51V28	6.3-7.3	51	10	45	28	24.2x17.6x5.2
GNI077085-P51V28	7.7-8.5	51(CW)	7	37	28	24.2x17.6x5.2
GNI083087-P61V50	8.3-8.7	61.7dBm 5us max, 1% duty	9	40	50	24x17.4x4.4
GNI085096-P48V28	8.5-9.6	48	7	36	28	24.2x17.6x5.2
GNI085096-P50V28	8.5-9.6	50	7	37	28	24.2x17.6x5.2
GNI085096-P52V28	8.5-9.6	52	7	37	28	24.2x17.6x5.2
GNI085096-P53V32	8.5-9.6	52.5 min	8	32	32	24.2x17.6x5.2
GNI085096-P51V40	8.5-9.6	51.3	10.7	45	40	24.2x17.6x5.2
GNI090095-P62V50	9.0-9.5	62 3us max, 5% duty	9	40	50	TBD
GNI090100-P52V28	9-10	52	8	37	28	24.2x17.6x5.2
GNI090100-P53V32	9-10	53	8	32	32	24.2x17.6x5.2
GNI090100-P55V50	9-10	55	10.7	45	50	24.2x17.6x5.2
GN095105-P52V32	9.5-10.5	52	8	33	32	24.2x17.6x5.2
GN095105-P53V32	9.5-10.5	53	8	33	32	24.2x17.6x5.2
GNI112118-P53V32	11.2-11.8	53	7	33	32	24.2x17.6x5.2
GNI118122-P53V32	11.8-12.2	53	6	33	30	24.2x17.6x5.2

**Note**

1. All data above are for information only. EMEC reserves the right to change without notice the specifications, designs, prices or conditions of sale.
2. OEM available if standard product can't satisfy.
3. Please inquire to get more product information.

## GaN MMIC Product List

Model	Freq (GHz)	Psat (dBm)	Gain (dB)	Voltage (V)	PAE (%)	Duty cycle
GN003020-P40	0.3-2	40	19	28	20	CW
GNM003020-P50	0.3/0.8-2	50	9	28/-2.6	40	CW
GN027035-P47	2.7-3.5	47	25	28	40	Pulse
GN027035-P49-TS	2.7-3.5	49	28	28	55	pulse
GN020180-P30	2.0-18	30	15	28	15	CW
GN020180-P38	2.0-18	38	18	28	20	CW
GN020180-P40	2.0-18	40	17	28	20	CW
GN020060-P44	2.0-6	44	30	28	30	CW
GN027062-P44	2.7-6.2	44	33	28	30	CW
GN020062-P48	2.0-6.2	48	9	28-32	35	CW
GN025064-P48	2.5-6.4	48	9	28-32	35	CW
GN020080-P44	2-8	44.5	15	28	25	CW
GN050060-P48	5-6	48	32	28	40	pulse
GN050120-P43-FL	5-12	43	27	28	28	CW/pulse
GN060180-P41	6-18	41	28	28	25	CW
GN060180-P43	6-18	43	25	28	25	CW
GNM060180-P43	6-18	42	25 min	28	25	CW
GN085105-P27	8.5-10.5	29	17	28		pulse
GN085105-P47	8.5-10.5	47	27	28	48	pulse
GN100180-P27	10-18	27	27	28		pulse
GN100180-P44	10-18	44	31	32	30	CW
GN110140-P45	11-14	45	19	28	30	pulse
GN080120-P27	8-12	27	25	28	15	CW
GN080120-P40	8-12	40		28		CW
GN080120-P42-2	8-12	42	28	28	35	CW
GN080120-P44	8-12	44	28	28	35	Pulse
GN080120-P46	8-12	46	23	28	40	Pulse
GN080120-P47	8-12	48	27	28	40	pulse
GN080120-P48	8-12		27	28	43	Pulse/CW
GN080140-P43	8-14	43	30	28	35	pulse
GN130150-P43	13-15	43				TBD

GN135155-P46	13.5-15.5	46		28	30	CW(TBD)
GN140180-P43	14-18	43	19	28	30	pulse
GN140180-P47	14-18	47		28	35	pulse
GN150180-P47	15-18	47		28	37	pulse
GN150170-P42	15-17	42	30	28	37	pulse
GN150170-P43	15-17	43	28	28	36	pulse
GN020200-P40	2-20	40	12	28	22	CW
GN180260-P40	18-26	39-40		TBD		CW
GN260400-P40	26-40	40		TBD		CW
GN180230-P42	18-23	42	16	28	25	CW
*GN240280-P40	24-28	40	17	20	30	CW
*GN250270-P43	25-27	43	27	24	20	CW
*GN270310-P40	27-31	40	18	20	30	CW
GN290320-P43	29-32	43	27	24	20	CW
GN320380-P39	32-38	39	20	24	27	CW/pulse
GN320380-P41	32-38	41	20	24	27	pulse
GN320380-P42	32-38	42	20	24	30	CW/pulse
GN330370-P42	33-37	41/42	20	24	30	CW/Pulse
GN330370-P43	33-37	43	28	24		CW/pulse
GN370430-P39	37-43	39	18	20	20	CW
GN430460-P39	43-46	39	18	15	20	CW
GN580630-P30	58-63	30	15	15	15	CW
*GN700780-P27	70-78	27	12	15	15	TBD
*GN800860-P27	80-86	27	12	15	15	TBD
GN920960-P24	92-96	24	18	15	15	CW
GN920960-P30	92-96	30	12	15	15	Pulse/CW
GN920960-P33	92-96	33	10	15	14	Pulse/CW
*GN920960-P36	92-96	36	10	15	14	Pulse/CW

#### Note

1. S to W-band OEM available.
2. MMIC on CuMo thermal spreader –TS or –FL or –CP packaged (C to Ku) lead wire version available on request.
3. All data above are for information only. EMEC reserves the right to change without notice the specifications, designs, prices or conditions of sale.
4. Please inquire to get more product information.

# 1-18GHz and K to W-band High Power SSPA Module

Model	Description
UHF00300110-10K	30-110MHz, 10KW pulsed system transmitter
EBP0U525-P5757	0.5-2.5GHz, 500W for 1-2.5GHz, 400W for 0.5-2.5GHz
EBP0U525-P53G53	0.5-2.5GHz, 200W, 53dB Gain, gain adjust
EBP0U506-P57G57	0.5-6GHz, 500W for 0.5-4GHz, 400W for 0.5-6GHz, 57dB Gain
ENP1214-xxxx	1.2-1.4GHz, 1.2KW, 10KW, 40KW, 80KW etc., pulse SSPA
EBP0102-P300G55	1-2GHz, 300W CW, 55dB Gain
EBP0102-P57G57	1-2GHz, 500W CW, 57dB Gain
EBP01028-P1200	1-2.5GHz, 1200W Psat min, 1000W P1dB min
EBP01028-P2000	1-2.5GHz, 2000W Psat min, 1500W P1dB min
ENP2834-xxxx	2.8-3.4GHz, 2KW, 10KW, 40KW, 80KW option etc., pulse SSPA
EBP1030-3KW	1-3GHz, 3KW Psat CW
EBP0104-P300G53	1-4GHz, 300W CW, 53dB Gain, Gain adjust
EBP0104—P57G57	1-4GHz, 500W CW, 57dB Gain, Gain adjust
EBP0204-P57G57	2-4GHz, 500W , 57dB Gain
EBP0204-P300G55	2-4GHz, 300W CW, 55dB Gain
EBP0206-P200G53	2-6GHz,300W CW, 55dB Gain
EBP0206-P500G57	2-6GHz,500W Psat CW, 57dB Gain
EBP2560-P53G53	2.5-6GHz, 200W, 53dB Gain
EBP 2560 -P57G57	2.5-6GHz, 500W for 2.5-4GHz, 400W for 2.5-6GHz



Model	Description
ENP7985-xxxx	SSPA up to 5KW option
ENP7888-P57G57	7.8-8.8GHz, 500W Psat, GaN SSPA
EBP0812-P53G53	8-12GHz, 200W P1dB CW min , 53dB Gain, Gain adjust
EBP0812-xxxx	8-12GHz, up to 1KW usable
ENP8596-P57G57	8.5-9.6GHz, 500W min, 57dB Gain and Gain adjust
ENP8596-P60G60	8.5-9.6GHz, 1000W min, 60dB Gain and Gain adjust
EPN8596-xxxx	8.5-9.6GHz 1KW to 30KW option
EPN0910-xxxx	9-10GHz, 1KW to 30KW option
EBP1416-P53G53	14-16GHz, 200W min, 53dB Gain and Gain adjust
EBP1315-xxxx	13-15GHz, up to 5KW usable
EBP0618-P40G40	6-18GHz, 10W P1dB CW, 40dB Gain
EBP0618-P43G43	6-18GHz, 20W , 43dB Gain
EBP0618-P47G47	6-18GHz, 50W, 47dB Gain
EBP0618-P50G50	6-18GHz, 100W CW P1dB , 50dB Gain, Gain adjust
EBP0618-P50G50S	(other 40W, 200W etc. option)
EBP0218-P50G50	2-18GHz, 100W CW Psat, 50dB Gain, Gain adjust
EBP0218-P53G53	2-18GHz, 200W from 4-12GHz and 150W from 2-18GHz
EBPS0218-P46G43	2-18GHz, 40W CW Psat , 19 inch rack PA
EBPS1826-P46G43	18-26GHz, 40W CW Psat, 19 inch rack PA
EBP1823-4040	18-23GHz, 10W, 40dB Gain
EBP1823-5050	18-23GHz, 100W and 50dB Gain
EBP2528-4040	25-28GHz or 25-29GHz, 10W and 40dB Gain
EBP2530-4040	25-27GHz, 100W and 50dB Gain
RBPS2640-P46G43	26-40GHz, 40W CW Psat , 19 inch rack PA



Model	Description
EBP27531-5050	27.5-31GHz, 100W and 50dB Gain, Gain adjust
EBP27531-5656-S	27.5-31GHz, 400W and 56dB Gain, Gain adjust, GaN SSPA
EBP3353365-P54G54	33-36GHz, 250W and 54dB Gain min, pulse SSPA
EBP3436-400WG56	34-36GHz, 400W min pulse SSPA
EBP4146-4343	41-46GHz, 25W min , 43dB Gain
EBP41245-P52G52	42-45GHz, 150W CW and 52dB Gain, GaN SSPA
EBP5065-P27G30	50-65GHz, 0.5W to 2W Psat, Pin=0dBm
EBP6880-P30G30	68-80GHz, 1W Psat, 30dB Gain
EBP6880-P37G37	68-80GHz, 5W, 37dB Gain
EBP7985-P37G37	79-85GHz, 5W, 37dB Gain
EBP9095-P30G30	79-85GHz, 1W, 30dB Gain
EBP9095P37G37	90-95GHz, 5W , 37dB Gain

- 1 Please contact if need detail specification
- 2 All 300w above system sspa include gain adjust
- 3 Other SSPA available.

# 2 – 18GHz, Broadband Power Amplifier

EBPS0218-P46G43

This solid-state broadband power amplifier has good performance, high power and high efficiency output. It can provide 2W to 200W output power within the bandwidth from 2GHz to 18GHz, widely used in microwave TR field.

## Advantages

- 1 High power and efficiency
- 2 Super broad band
- 3 High reliability and durability
- 4 Remote control, monitor and protection circuit built in.
- 5 Abundant customized services

## Technical Parameter

Frequency	2GHz~18GHz(Typical)
Small signal gain	43dB(Typical)
Gain flatness	±3dB
Gain varies from temperature	3dB
Saturated output power(Psat)	+46dBm(Typical)
Efficiency@ Saturated power	15%
VSWRin	2:1
Harmonic suppression	20dBc
Spurious suppression	60dBc
Power consumption (P1dB output power)	500W

## Environmental index

Working temperature	220V
Working current	2A(Typical)
Working temperature	0°C to+50°C
Storage temperature	-40°C to+70°C

## Mechanical specifications

Dimension (Length X Width X Height)	635×483×152.mm
Weight	25kg
RF interface	Input interface:N adapter (F) Output adapter: N adapter(F)
Monitoring communications mode	RS-485

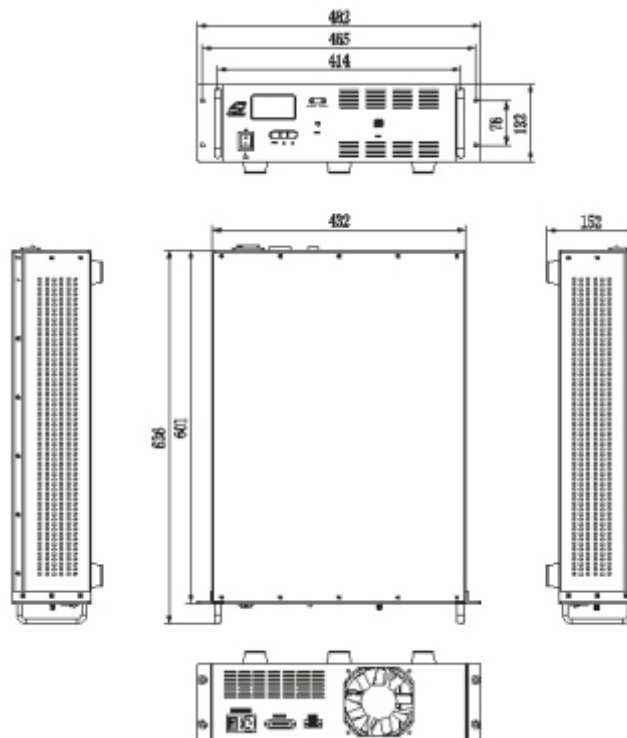
## Protection specifications

Maximum output power	+10dBm
Output mismatch@P1dB At any phase and radiation	5:1
Overheat protection temperature	85°C

## Products selection

(2GHz~18GHz:2W , 5W , 10W , 20W , 40W , 80W , 100W , 200W option)

## Outline Drawings



# X--Band 1 KW SSPA Module

EPN-0910-1KW-M

This X-Band power amplifier has good performance, high power and high efficiency output. It can provide 1000W output power within the bandwidth from 9GHz to 10GHz, widely used in microwave TR field.

## Advantages

- 1 1 kW peak output power
- 2 Typical frequency range of 9.0 to 10.0 GHz(9.5-10.5GHz option)
- 3 Efficiencies as high as 20%
- 4 Up to 100  $\mu$  Sec pulse width, 10% duty cycle
- 5 Targeted for TWT amplifier replacement
- 6 Military and commercial radar applications



## Technical Parameter

Parameter	Specification
Frequency	9.0-10.0 Ghz
Output Power	+60 dBm Peak (min)
Input Power	+2 to +4 dBm
RF Pulse Width	0.05 to 100 $\mu$ sec
Duty Cycle	10% (max)
Pulse Repetition Rate	40 kHz (max)
Rise / Fall Time	300 nsec (max)
Efficiency <sup>(2)</sup>	15% (min)
P <sub>out</sub> On/Off Ratio	80 dB (min)@1kW
2 <sup>nd</sup> Harmonic	- 40 dBc (max)@1kW
3 <sup>rd</sup> Harmonic	- 45 dBc (max)@1kW
Spurious (non -harmonic)	- 70 dBc (max)@1kW
Noise Power Density <sup>(3)</sup>	- 34 dBm/MHz (max)
Input / Output Impedance	50 $\Omega$ (nominal)
Input / Output VSWR	1.5 :1
DC Prime Power <sup>(4)</sup>	+28 VDC

## Mechanical Specifications

Parameter	Specification
Case Dimensions	11.8"(L)x6.1"(W)x2.2"(H)
Material	6061-T6 Aluminum Alloy
Finish	Silver Plate per QQ-S-365 Type II, Grade B
Connectors	
RF Input	SMA Female Captivated 4-Hole Flange
RF Output	TNC Female (WR90 option)
DC Power	Male 15 Pin Filtered D-Sub Standard Density
Control / Interface	21 Pin Micro D-Sub
Weight	11 lbs. (max)
Grounding	Chassis
Outline Drawing	080-23140

# 6-18GHz Solid State Power Amplifier

This solid-state broadband power amplifier has good performance, high power and high Gain output. It can provide 100W to 200W output power within the bandwidth from 6GHz to 18GHz, widely used in microwave TRfield.

## Advantages

- 1 Ultra wideband operation
- 2 High efficiency
- 3 Full power across the entire bandwidth
- 4 Rugged and reliable
- 5 Low harmonic distortion
- 6 Compact and lightweight
- 7 GaN technologys



## Technical Parameter

Frequency Range	6-18GHz
RF Power Output (P3dB)	>50 Watts Typical (100W, 150W, 200W option on request)
Gain @ 50 watts	>44 dB Typical
RF input Overdrive	+10 dBm Max.
Gain Flatness @ 50W (50Ω)	±6dB Typical
Class of Operation	AB Linear 2.0:1
Input VSWR	Maximum
Output Load VSWR	2.0:1 Full Power
Harmonics: 2fo: 3fo	<-15dBc
Spurious	<-25dBc
Stability	<-60 dBc
Built in Test	Open/Short Tested
DC/Control Interface	7-pin Combo D
PA Enable/Disable	5.0V TTL (<5μS)
DC Input	+28Vdc ±2V
DC Power @ Standby	<15W
Efficiency (DC to RF)	13% Typical
RF Connectors: RF Input, RF Output	SMA Female field replaceable TNC Female field replaceable
Operating Temperature	-40 to +55 °Cbaseplate (external heatsink required)
Environmental	Shock/Vibration MIL-STD-810F
Size	6.13" x 3.50" x 1.5"
Weight	3 lbs
Noise Power Output	-105dBm/Hz Typical

## Environmental Specifications

Ambient Operating Temperature	-40°C to +70°C	—
Absolute Max Baseplate Temperature	+90°C	—
Storage Temperature	-55°C to +100°C	—
Cooling	Adequate Heat Sink Required	Conduction
Relative Humidity	0 to 95%	Non--condensing
Altitude	0 to 40,000 ft.	Above Sea Level
Shock and Vibration	Airborne	—

## Miscellaneous

Control / Interface Signals	Standby/Operate, Pre --- trigger, Remote On/Off, Synchronization	TTL Logic
Synchronization Frequency	250 kHz (nominal)	No Damage
Maximum Load VSWR	Open / Short (All Phase Angles)	
MTBF	5000 hrs. @ +50°C Baseplate Temperature	MIL --- HDBK---217

## Notes

- 1 Specification ratings are based on measurements in a 50 ohm system.
- 2 Total efficiency of +28 VDC power supply integrated with solid state amplifier.
- 3 Measured at the RF output with the RF input terminated into a 50 ohm load.
- 4 Alternate DC power supply voltages available as a custom solution.

# 26.5 – 40GHz Broadband Power Amplifier

EBPS2640-P46G43

This solid-state broadband power amplifier has good performance, high power and high efficiency output. It can provide 2W to 100W output power within the bandwidth from 26.5GHz to 40GHz, widely used in microwave TRfield.

## Advantages

- 1 High power and efficiency
- 2 Super broadband
- 3 High reliability and durability
- 4 Remote control, monitor and protection circuit built in.
- 5 Abundant customized services

## Technical Parameters

Frequency	26.5GHz~40GHz(Typical) ;
Small signal gain	43dB(Typical)
Gain flatness	±3dB
Gain varies from temperature	3dB
Saturated Power(Psat)	+46 dBm (Typical)
Efficiency@ Saturated power	10%
VSWRin	2:1
Harmonic suppression	20dBc
Spurious suppression	60dBc
Power consumption (P1dB output power)	500W

## Environmental Index

Working voltage	220V
Working current	2A(typical)
Working temperature	0°C to +50°C
Storage temperature	-40°C to +70°C



## Mechanical Specifications

Dimension (Length X WidthX Height)	635×483×152.mm
Weight	25kg
RF interface	Input interface : K adapter (F) Output adapter : Wr28
Monitoring communications mode	RS-485

## Protection Specifications

Maximum output power	+10dBm
Output mismatch@P1dB at any phase and radiation	5:1
Overheat protection temperature	85°C

## Customization Options

EBPS2640-P46G43(26.5GHz~40GHz,2W,5W,10W,20W,40W,80W,100W)



# 33.5-36.5GHz or 34-36GHz 400W SSPA Module

EBP335365-400WG56/EBP3436-400WG56

This broadband power amplifier module has good performance, high power and high Gain output. It can provide up to 400W output power within the bandwidth from 33.5GHz to 36.5GHz or 34GHz to 36GHz , widely used in microwave TRfield.

## Advantages

- 1 Combine solid-state GaN and GaAs MMIC technology
- 2 High power and duty cycle
- 3 High reliability and durability
- 4 Abundant customized services

Frequency	33.50-36.50GHz or 34-36GHz
Amplifier type	Combine solid-state GaN and GaAs MMIC technology
Output power (Psat)	400W min
Operation state	Pulse
Duty cycle	20% max (30% max option based customer's request)
Pulse duration	0.5us min
Gain	56dB min (other value option )
Gain flatness	+/- 2.5db typ, +/- 3.0dB max
Gain adjust (option )	1dB step if needed for Rack mount SSPA ( tell us detail Gain beginning value )
Input connector	K-F, waveguide WR28 option as customer request
output connector	Waveguide Wr28
Voltage supply	+25+/-1VDC and-5VDC ( 220VAC/50Hz for Rack mount SSPA)
Protection for Rack mount SSPA ( option)	On and off time sequence, over temperature ,Over Current and voltage protect, other request such as output VSWR ,Fan stop , not display
Operation temperature	-20 to+50°C (-40 to 60°C usable)
Operation environment	As customer's request (airborne and very compact type usable)
cooling	Forced air or liquid

# 41-46GHz CW SSPA

EBP4146--4343

This broadband power amplifier module has good performance, high power and high Gain output. It can provide up to 400W output power within the bandwidth from 33.5GHz to 36.5GHz or 34GHz to 36GHz , widely used in microwave TRfield.

## Advantages

- 1 Combine solid-state amplifier
- 2 High power and gain
- 3 High reliability and durability
- 4 Abundant customized services

Frequency	41-46GHz
Amplifier type	Combine solid-state amplifier
Output power (P1dB )	20W CW (full temperature range from -40 to 60°C)
Input power	0dBm
Input connector	WR22 Waveguide or K-F
Input /output connector	WR22 Waveguide
Gain	43dB min
Gain flatness	±1.5dB max
VSWR	2:1
Voltage supply	6 to 6.5VDC
Current	80A typ
Operation temperature	-40 to 60°C
cooling	Forced air
Dimension	202mm×162mm×70mm ( without connector )
Weight	<3.0Kg

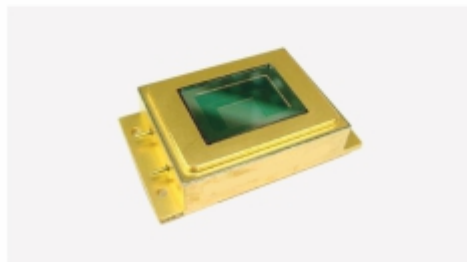
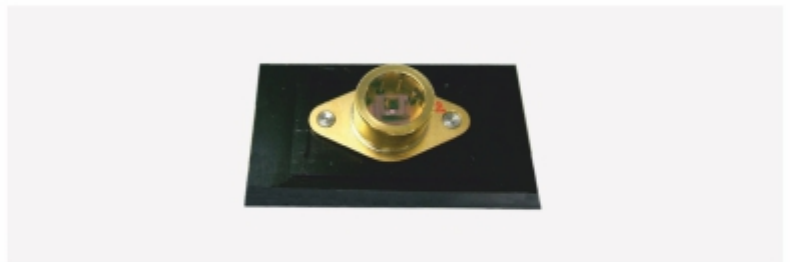
## EBP4146-4343 SSPA Test Result

Frequency(GHz)	41	42	43	44	45	46	
Output power (dBm)	44.66	43.2	43.97	44.0	44.68	44.11	Pin=0dBm
	44.76	44.04	45.2	44.74	44.8	44.23	Pin=5dBm
Input and output connector	Wr22						
Gain (dB)	> 44.2dB						
Gain flatness (dB)	±1.5dB						
VSWR	< 1.9:1						
Positive voltage (V)	+6						DC
Positive current (A)	70min85max						
Negative voltage (V)	-5						DC
Negative current (mA)	540 Typ						
Fan power supply (V)	24						DC
Cooling	cooling fan						
Dimension	203mm×162mm×70mm						
Weight	< 2.8kg						



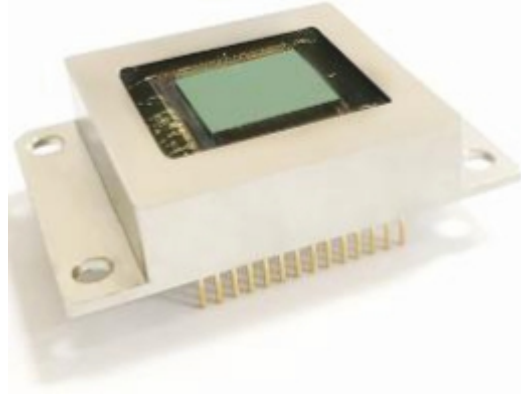
## InGaAs detector List

Product type	Product model	Product specification
Unit Detector	EOTNIR- I	photosensitive unit $\phi 1\text{mm}$ respond waveband 0.9~1.7 $\mu\text{m}$ , uncooled
	EOTNIR- II	photosensitive unit $\phi 1\text{mm}$ respond waveband 0.9~1.7 $\mu\text{m}$ , TEC cooled
	EOTSWIR- I	photosensitive unit $\phi 1\text{mm}$ respond waveband 1.0~2.5 $\mu\text{m}$ , TEC cooled
Linear detector	EOTNIR-256	photosensitive unit 50 $\mu\text{m}$ *500 $\mu\text{m}$ 256*1 scale, respond waveband 0.9~1.7 $\mu\text{m}$
Plate array detector	EOTTU- I	Scale 320*256 elements center distance 30 $\mu\text{m}$ , respond waveband 0.9~1.7 $\mu\text{m}$
	EOTTU- II	Scale 320*256 elements center distance 30 $\mu\text{m}$ , respond waveband 0.9~1.7 $\mu\text{m}$
	EOTHU- I	Scale 640*512 elements center distance 25 $\mu\text{m}$ , respond waveband 0.9~1.7 $\mu\text{m}$
Micro spectrometer	EOT256NIR	respond waveband 0.9~1.7 $\mu\text{m}$ optical resolution 4~12.0nm, SNR 2000:1
Camera movement	EOTTUE- I	Pixel scale 320*256, center distance 30 $\mu\text{m}$ respond waveband 0.9~1.7 $\mu\text{m}$ , exposure time adjustable non-uniformity correction, blind element elimination



# InGaAs SWIR Detector

Our company's visible-short infrared focal plane array detectors, extend traditional InGaAs detector's spectrum respond range from 900-1700nm to 400-1700nm. It can realize visible, near infrared and short infrared detecting and imaging simultaneously. It can be used widely in multi spectrum and high spectrum imaging filed.



Product Type	EOT-VSW640-F15c	EOT-SW640-F15c
Array size	640 × 512	640 × 512
Pixel element spacing	15μm	15μm
Spectrum respond	0.4~1.7μm	0.9~1.7μm
Effective dimension	9.6 × 7.68 mm	
Fill factor	100%	
Quantum efficiency	≥65% (1.0~1.6μm)	
Detection ratio D	≥5 x 10 <sup>12</sup> cm Hz <sup>1/2</sup> W <sup>-1</sup>	
Noise electron	50 e <sup>-</sup> (@HG, read out noise)	
Full well capacitance	1.8 x 10 <sup>6</sup> e <sup>-</sup> (@LG, 1.8V)	
	7.3x 10 <sup>4</sup> e <sup>-</sup> (@MG, 1.8V)	
	1.7 x 10 <sup>4</sup> e <sup>-</sup> (@HG, 1.8V)	
Dynamic Range	76dB (linear mode)	
	120dB (logarithms mode)	
Photoresponse heterogeneity	< 3%	
Operable pixel rate	>99.5%	
Exposure time	37μs ~ frame time	
Maximum frame rate	240fps	
Reading mode	ITR, IWR, NDRO, IMRO	
Operation temperature	-40~60 oC	
Storage temperature	-40~70 oC	
Weight	< 30g	

Our company's short infrared InGaAs focal plane array detector can provide TEC cooling according to requirement, to increase detector sensitivity. These detectors choose flip-chip technology to realize electrical connection with reading circuit. It has advantages of good performance, high reliability and excellent sensitivity

Product Type	EOT-SW640-F25a	EOT-SW320-F30a
Product picture		
Array size	640 × 512	320 × 256
Pixel element spacing	25μm	30μm
Spectrum respond	0.9~1.7μm	0.9~1.7μm
Effective dimension	16 × 12.8 mm	9.6 × 7.68 mm
Fill factor	> 99%	> 99%
Quantum efficiency	≥70% (1.0~1.6μm)	≥70% (1.0~1.6μm)
Detection ratio D	≥5 × 10 <sup>12</sup> cm Hz <sup>1/2</sup> W <sup>-1</sup>	≥5 × 10 <sup>12</sup> cm Hz <sup>1/2</sup> W <sup>-1</sup>
Noise electron	70 e <sup>-</sup> (@HG, read out noise)	50 e <sup>-</sup> (@HG, read out noise)
Full well capacitance	1.9 × 10 <sup>6</sup> e <sup>-</sup> (@LG)	3.5 × 10 <sup>6</sup> e <sup>-</sup> (@LG)
	3.9 × 10 <sup>4</sup> e <sup>-</sup> (@HG)	1.7 × 10 <sup>4</sup> e <sup>-</sup> (@HG)
Photoresponse heterogeneity	≤4%	≤4%
Operable pixel rate	>99%	>99%
Exposure time	1μs ~ frame time	1μs ~ frame time
Maximum frame rate	107 fps	346 fps
Reading mode	ITR, IWR, IMRO	ITR, IWR, IMRO
Operation temperature	-20~85°C	-20~85°C
Storage temperature	-40~85°C	-40~85°C
Weight	< 30g	< 30g





### **Customer distribution**

China, South Korea, Vietnam, India, Pakistan, United Arab Emirates, Turkey, Russia, Estonia, France, Spain, Ukraine, Iran



**МАКРО  
ГРУПП**

[www.macrogroupp.ru](http://www.macrogroupp.ru)  
[rf@macrogroupp.ru](mailto:rf@macrogroupp.ru)

Официальный дистрибьютор в России

**Санкт-Петербург** (812) 370 60 70

**Москва** (495) 988 02 72

**Екатеринбург** (343) 380 35 10

**Ростов-на-Дону** (863) 227 03 93

**Чебоксары** (8352) 23 79 55

**Новосибирск** (383) 233 34 87