

Smart Antenna TS100 Series Base



INNOVATIVE MULTI-CONSTELLATION SMART ANTENNAS FOR PRECISION AGRICULTURE



MULTI-CONSTELLATION FOR ADVANCED POSITIONING

TS100 Base Series is a multi-GNSS compatible system using GPS, GLONASS, BeiDou, Galileo, for simultaneous satellite tracking to offer RTK positioning. It is able to track any visible satellites under challenging conditions, and outputs reliable correction data even if there are obstructions around the farmland.

HIGH PRECISION GNSS SURVEY ANTENNA

TS100 Base Series is embedded with Harxon's multi-frequency GNSS survey antenna which features a multi-point feeding design to achieve greater phase center stability. It can effectively improve measurement accuracy and provide the positioning solutions with precision and reliable data.

STABLE AND RELIABLE CORRECTION DATA TRANSMISSION

The built-in high precision GNSS module of TS100 Base Series supports multi-frequency signal reception with advanced multi-path resistance technology, therefore provides stable and reliable correction data transmission.

CORRECTION DATA LINKS SELECTABLE

The Bluetooth, built-in/external radio transmission modems are designed as multiple selections as required.

MULTIPLE INSTALLATION OPTIONS

TS100 Base Series supports mounting options of built-in magnet, fixed mounting as well as 5/8-inch screws and M4 screws, offering more convenient and quicker installation in challenging environments.

BENEFITS

- Multi-Constellation for enhanced precision and reliable correction data
- Build-in/external radio and Bluetooth provide multiple correction data link options
- Bluetooth wireless connectivity makes configuration and diagnosis easier
- 3 magnet mountings offer convenient installation in challenging environments

KEY FEATURES

- 432 channels
- GPS, BeiDou, GLONASS, Galileo signals tracking
- Bluetooth[®]
- Build-in Radio
- External Radio (optional)

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PERFORMANCE ^②

Signal Received

GPS	L1/L2/L5
GLONASS	L1/L2
BDS	B1/B2/B3
GALILEO ^③	E1/E5a/E5b

Horizontal Position Accuracy(RMS)

Single point	1.5m
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Maximum Position Data Rate	10Hz
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Maximum Correction Data Rate	1Hz
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Time to First Fix

Cold Start	<50s
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Measurement Precision(RMS)

code/cm	BDS	GPS	GLONASS	Galileo
B1/L1 C/A/E1	10	10	10	10
B2/L2p(Y)/L2C/E5a	10	10	10	10
B3/L5/E5b	10	10	10	10
Carrier Phase/mm				
B1/L1 C/A/E1	1	1	1	1
B2/L2p(Y)/L2C/E5a	1	1	1	1
B3/L5/E5b	1	1	1	1

PHYSICAL AND ELECTRICAL

Dimensions	160 diameter x 80 height (mm)
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Weight	<950g
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Connector	10pin female
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Mounting

- 3xmagnet mountings
- 4xM4 screw inserts
- 1x5/8-inch screw insert

Power

Input Voltage Range	+9VDC to +30VDC
Power Consumption	<8.5W ^④

Status LEDs

- Power
- RTK status
- Correction data link

ENVIRONMENTAL

Temperature

Operating	-40°C to +70°C ^⑤
Storage	-55°C to +85°C

Humidity	95% non-condensing
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Vibration	GJB150.16-2009, MIL-STD-810
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Compliance	CE, FCC, REACH, RoHS
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Ingress Protection Rating	IP67
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COMMUNICATION PORTS

- 1xRS-232 serial port for user
- 1xRS-232 serial port for external correction data output
- 1xBluetooth
- 1x built-in radio for correction data output

STANDARD FEATURES

- GPS L1/L2/L5, BDS B1/B2/B3, GLONASS L1/L2, Galileo E1/E5a/E5b position, velocity
- 10Hz data rates
- Field upgradable software
- Differential correction support for RTCM2.x 3.x
- Navigation output support NMEA0183

OPTIONAL ACCESSORIES

Interface Cable

Radio Antenna

For the most recent details of this product:
<http://en.harxon.com/products-detail.php?Proid=162>

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- ①. 2.0 & 4.0
- ②. Typical value
- ③. Only Available for TS103
- ④. Typical value at 1W build-in radio working status
- ⑤. Bluetooth: -20°C to +70°C

HARXON SMART ANTENNAS BASE SERIES

	BT	Built-in Radio (410 MHz-470 MHz)	Accessory
TS101	—	—	Interface Cable
TS103	✓	✓	Interface Cable Radio Antenna