

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)

Smart Antenna TS100 Series Base

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
--------------	------

Maximum Position Data Rate

10Hz

Maximum Correction Data Rate

1Hz

Time to First Fix

Cold Start	<50s
------------	------

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)

Weight <950g

Connector 10pin female

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

Vibration GJB150.16-2009, MIL-STD-810

Compliance CE, FCC, REACH, RoHS

Ingress Protection Rating IP67

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>

en.harxon.com

sales@harxon.com

6/F, Block B, Building D3, TCL International

E City, NO.1001 Zhongshanyuan Road,

Nanshan District, Shenzhen, China

Tel: +86-755-26989948

Fax: +86-755-26989994

Version 1 Specifications subject to change without notice.

©2018 Harxon Corporation. All rights reserved.

Printed in China

June 2018

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