

# Smart Antenna HX-TS122 EUAA



## INNOVATIVE MULTI-CONSTELLATION SMART ANTENNA FOR PRECISION AGRICULTURE



### COMPREHENSIVE GNSS SUPPORT

Harxon's TS122 EUAA smart antenna receives dual-frequency multiple constellation signals from GPS, GLONASS, GALILEO and BEIDOU, with output position information up to 10Hz.

### STANDALONE TECHNOLOGY

STANDALONE technology can help the receiver achieve centimeter-level accuracy which is corresponding to the first navigation point without any external support. STANDALONE technology will fully use the navigation information from the receiver, and according to the models algorithm and parameter estimation algorithm to eliminate errors from satellite orbit, clock errors, ionosphere and troposphere to get better positioning accuracy by itself. It can greatly reduce cost and complexity for agriculture machine applications where high precision pass-to-pass accuracy is needed.

### SLIDE™ POSITIONING TECHNOLOGY

Adopting Harxon patented SLIDE™ smooth positioning technology, HX-TS122 EUAA can provide smoother steering and straighter rows with stable positioning output, even in tough environments where poor satellite signal tracking occurs or there's short-term signal interruption.

### TERRAIN COMPENSATION FOR MAXIMUM ACCURACY

HX-TS122 EUAA also features terrain compensation algorithm that is capable of correcting deviations caused by vehicle's roll and pitch while working on uneven groups or slopes. It helps users increase operation efficiency and save cost in the field.

### RICH INTERFACES FOR FLEXIBLE CONNECTIVITY

HX-TS122 EUAA equips two RS-232 serial ports and Bluetooth wireless technology for easy configuration of the smart antenna via installing configuration app on the phone or tablets. The Bluetooth wireless technology also provides wireless corrections transmission from tablets or other devices to the smart antenna.

### RUGGEDIZED AND DURABLE DESIGN, FLEXIBLE INSTALLATIONS AVAILABLE

HX-TS122 EUAA smart antenna adopts a compact and flat structure design. Its IP67 rating housing ensures reliable performance in harsh environments even exposed to dust, rain, splash or sunlight. The antenna also simplifies the installation by providing three options and suits for various off-road vehicles in agriculture and construction: 3\*M5 screws mount, magnetic mount and BSW5/8"-11 screw mount.

### KEY FEATURES

- High precision GNSS module and antenna
- SLIDE™ smooth positioning technology for stable positioning output
- Terrain compensation algorithm maximums positioning accuracy
- Wireless Bluetooth technology for easy connectivity
- Rugged housing, flexible installation options, IP67 rating waterproof

# Smart Antenna HX-TS122 EUAA

## PERFORMANCE

### Signal Received

GPS	L1/L2
GLONASS	L1/L2
BDS	B1/B2
GALILEO	E1/E5b

### Accuracy

Single point	1.5m CEP
PASS TO PASS	±10cm

**Output Frequency** 10 Hz

**Time to First Fix** Cold Start < 50s

## PHYSICAL AND ELECTRICAL

**Dimensions**  $\phi 152 \times H 57.7 \text{mm}$

**Weight** < 500g

**Connector** M12 8PIN Connector

### Mounting

3\*M5 Screws Mount

Magnetic Mount

BSW5/8"-11 Screw Mount

**Accessories** Data Cable\*1pc (Alternative)

### Power

Input Voltage Range +9VDC ~ +36VDC

Power Consumption 2.5W (Typical)

### Status LEDs

Power

RTK Status

## ENVIRONMENTAL

### Temperature

Operating -40°C~+70°C

Storage -40°C~+75°C

**Humidity** 95% non-condensing

**Vibration** GJB150.16-2009

**Waterproof Rating** IP67

## COMMUNICATION PORTS

RS-232 2

Bluetooth

## STANDARD FEATURES

- 10Hz Data Transfer Rate
- Field Upgradeable Software
- Navigation Output Support for NMEA0183
- SLIDE™ Smoothing Algorithms

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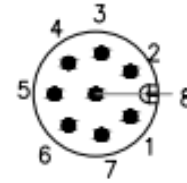
**Version 3** Specifications subject to change without notice.

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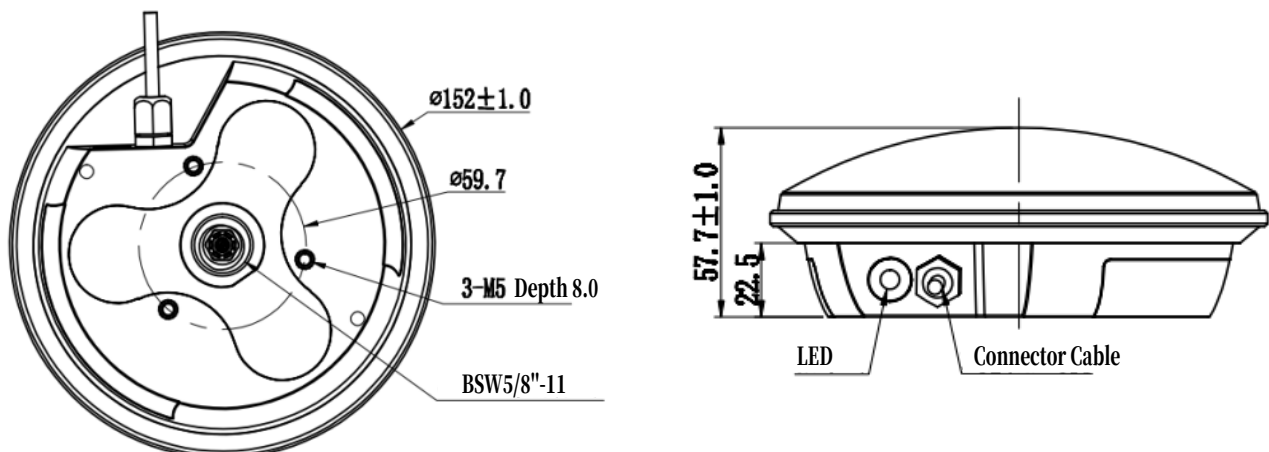
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## Pin Definition



S/N	Pin Name	Pin Direction	Pin Usage
1	VCC		Positive Power Supply
2	GND		Power Ground
3	TXD1	Output	Data Port
4	RXD1	Input	
5	GND		Configure Port
6	TXD2	Output	
7	RXD2	Input	
8	GND		

## Structure & Phase Center Drawing (mm)



Undeclared Tolerance: ±0.3mm