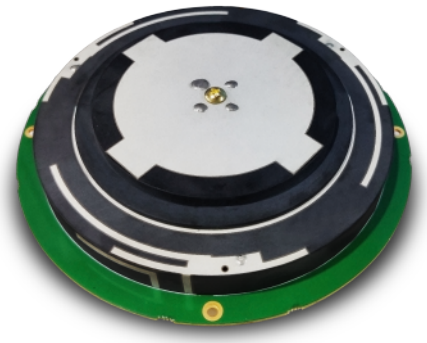
X-Survey™ OEM Antenna HX-CSX100A

Harxon
a BDStar company

INNOVATIVE 4in1 MULTIFUNCTION ANTENNA TO RTK APPLICATIONS

Harxon's 4in1 multifunctional X-Survey™ OEM antenna HX-CSX100A is an embedded multi-constellation multi-frequency GNSS antenna that integrates GNSS antenna, dual 4G antennas, BT, and WIFI in one compact enclosure. It's a highly integrated antenna that delivery high performance positioning accuracy while ensuring great anti-electromagnetic interference effect. Its compact integration and robust performance make it ideal to be adopted into applications as geodetic surveying, oceanic surveying, geologic surveying and geological disasters monitoring, smart port operations and etc.



STABLE PHASE CENTER FOR ROBUST POSITIONING PERFORMANCE

The HX-CSX100A embedded antenna support multi-constellation full frequency satellite signal tracking, including GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, SBAS and L-band correction service. It features Harxon X-Survey™ technology that support multi-point feeding capability, guaranteeing a reliable phase center for millimeter positioning accuracy.

HIGHLY INTEGRATED LAYOUT FOR EASY INTEGRATION

The HX-CSX100A integrates GNSS antenna, dual 4G antennas, WIFI, and BT into one compact enclosure. Adopting multiple antennas in one solution greatly simplify the complexity of different types antennas integration for applications. Harxon employs self-developed microwave material for isolating interrelated effect among these antennas for reliable signal receptions. Meanwhile, the 4G antennas are evenly distributed at the outer layer of this structure for consistent signal availability while taking product dimension into consideration.

TRACKING IN COMPLEX ENVIRONMENTS

This antenna exhibits superior high gain performance with ultralow signal loss, ensuring reliable satellite signal tracking. It also delivers wide beam width that covers a wide frequencies with high marginal gain. These features in turn ensure the antenna a robust signal availability even in low elevation, making the antenna a perfect option in complex environments that have blockage, such as tree canopy and buildings.

STRONG ANTI-INTERFERENCE PERFORMANCE

The advanced LNA (Low Noise Amplifier) excels in improved signal filtering and out-of-band rejection and restraints unwanted electromagnetic interferences, plus strong multi-path reduction capacity over all GNSS frequency bands, providing strong anti-interference performance for consistent and reliable GNSS signals, even under complicated environments such as power grids, communication base stations, and broadcast stations.

EASY INTEGRATION DESIGN FOR PRECISION APPLICATIONS

The unique structure design simplifies the RTK integration, and minimizes the overall machine dimension, aiming to bring system integrators high efficiency performance of navigation and communication in surveying and precision agriculture applications.

KEY FEATURES

- Supports GPS, GLONASS, Galileo, BeiDou, QZSS, IRNSS, SBAS and L-band correction service
- Supports Dual 4G, Wi-Fi, Bluetooth
- Stable phase center guarantees the accuracy of positioning within millimeter-level
- Powerful system compatibility, easy for machine integration

www.geospb.ru

X-Survey™ OEM Antenna HX-CSX100A

Harxon
a BDStar company

PERFORMANCE

Signal Received	
GPS	L1/L2/L5
GLONASS	L1/L2 /L3
BDS	B1/B2/B3
GALILEO	E1/E5a/E5b/E6
QZSS	L1/L2/L5
IRNSS	L5
SBAS	L1/L5
L-Band	
Dual 4G / BT / WiFi	
Nominal Impedance	50Ω
Polarization	RHCP
Axial Ratio	⩽3dB
Azimuth Coverage	360°
Output VSWR	⩽2.0
Peak Gain	
GNSS	1164MHz-1300MHz 5dBi
	1525MHz-1612MHz 5dBi
BT/WiFi	2.4-2.5GHz 1dBi
4G	790-960MHz 0.5dBi
	1710-2690MHz 0.5dBi
Phase Center Deviation	±2mm

LNA

LNA Gain	L2: 40±2dB
	L1: 38±2dB
Noise Figure	⩽2dB
VSWR	⩽2.0
Passband Ripple	±2dB
Operation Voltage	3.3V to 12V DC
Operation Current	⩽45mA
Group Delay Ripple	⩽5ns

MECHANICAL

Dimensions	¢125 x 27.5mm②
Weight	⩽220g
Connector	
GNSS	MMCX-C-JW1.5
BT/WiFi	MMCX-C-JW1.5
Dual 4G	MMCX-C-JW1.5
Mounting	4 x M2.5 screws installation

ENVIRONMENTAL

Temperature	
Operating	-40℃ to +85℃
Storage	-55℃ to +85℃
Humidity	95% non-condensing

For the most recent details of this product:
http://en.harxon.com/products-detail.php?ProId=172

en.harxon.com
sales@harxon.com
9/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

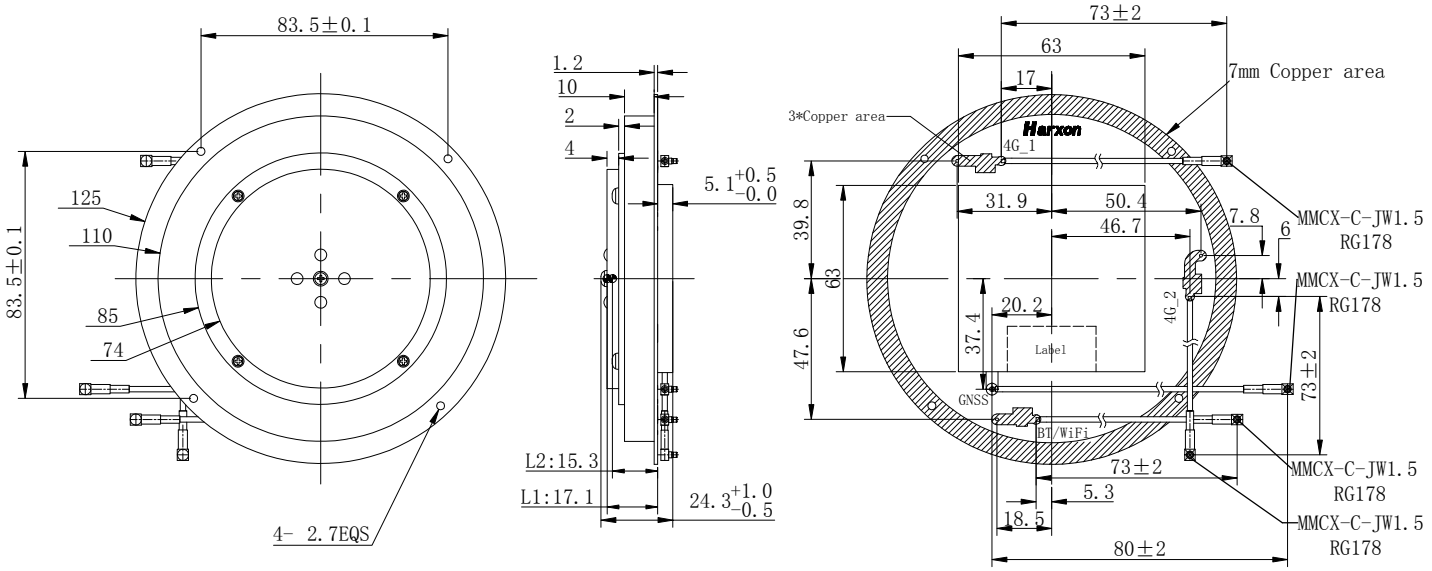
Version 3 Specifications subject to change without notice.

©2021 Harxon Corporation, All rights reserved.

Printed in China
July 2021

①.4G bands: can be customized according to different countries and regions
②.Dimension: typical value, without connector, can be customized

Structure& Phase Center Drawing (mm)



TOP VIEW SIDE VIEW BOTTOM VIEW

Undeclared Tolerance:±0.3mm

www.geospb.ru