

OEM GNSS Antenna HX-CSX359A(4G)

HX-CSX359A is a embedded full frequency GNSS antenna covering GPS, GLONASS, BDS, GALILEO, and QZSS. It is also compatible with the 4G , WIFI.meeting the demand for multi-system compatibility in current survey devices. It can be widely used in various applications such as geodetic surveying, marine surveying, channel surveying, dredging surveying, seismic monitoring, bridge deformation monitoring, landslide monitoring, and port container operations.

HIGHLY INTEGRATED ANTENNA FOR EASY INTEGRATION

HX-CSX338A integrates GNSS antenna and 4G into one compact enclosure, greatly simplifying RTK integration. Deep optimization has been carried out for the isolation between antennas of various systems, systematically addressing the electromagnetic compatibility issues that have long troubled RTK receivers.

STABLE PHASE CENTER FOR ROBUST POSITIONING PERFORMANCE

It features multi-point feeding capability, guaranteeing a reliable phase center for millimeter positioning accuracy.

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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 wide frequencies with high marginal gain. These features guarantee robust signal availability even in low elevation, making the antenna a perfect option for complex environments with blockage, such as forests and buildings.

ELIABLE STRUCTURE FOR STABLE PERFORMANCE

This antenna uses air dielectric and low-loss microwave board materials. The overall weight is reduced, the structure is more robust, and the electrical performance becomes more stable and reliable.

● Key Features

- Supports GPS, GLONASS, Beidou, Galileo, QZSS
- Supports 4G,WIFI
- Anti-electromagnetic interference, tracking in complex environments
- Powerful system compatibility, easy for machine integration

Specifications

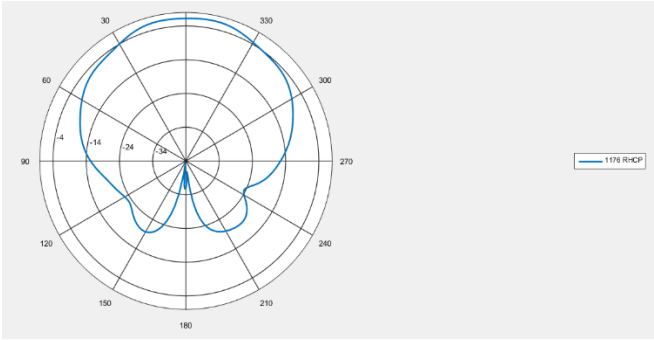
PERFORMANCE	
Signal Received	GPSL1/L2/L5 BDS B1I/B2I/B3I/B1C/B2a/B2b GLONASS G1/G2/G3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 L-Band 4G、WIFI(2.4GHz&5.8GHz)
Nominal Impedance	50 欧姆
Polarization	右旋圆极化
Peak Gain	WIFI≤0.5dBi 4G≤0.5dBi
Axial Ratio	≤3dB
Phase Center	±2mm
LOW NOISE AMPLIFIER	
LNA Gain	30±2dB

Noise Figure	≤2.0dB
VSWR	≤2
Passband Ripple	±2dB
Passband Ripple	≤5ns
Working voltage	3.3 ~ 12VDC
Operation Current	≤45mA
MECHANICAL	
Dimensions	Φ113.8*H13.7mm
Connector	GNSS: MMCX-KE-3 4G&WIFI: IPEX
ENVIRONMENTAL	
Operating Temperature	-40℃ ~ +85℃
Storage Temperature	-55℃ ~ +85℃
Humidity	95%

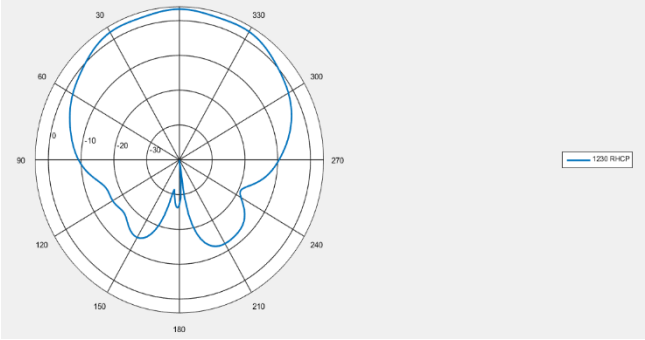
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GNSS Antenna Performance

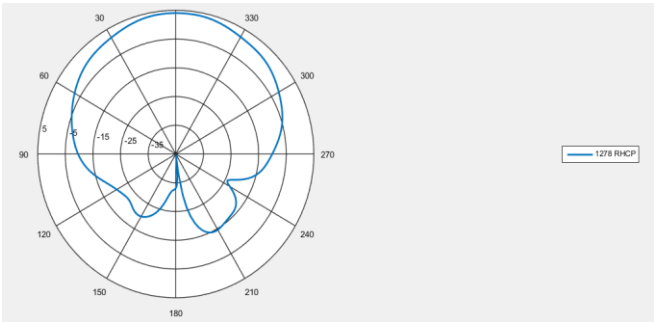
Frequency (MHz)	1176	1206	1227	1268	1559	1561	1575	1606
Gain (dBi)	3.0	4.0	4.5	4.4	4.0	4.2	4.6	4.1



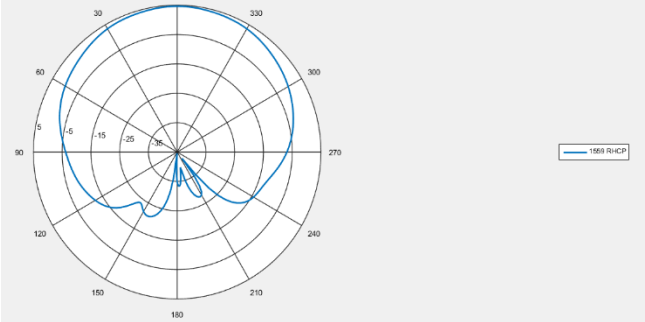
1176MHz



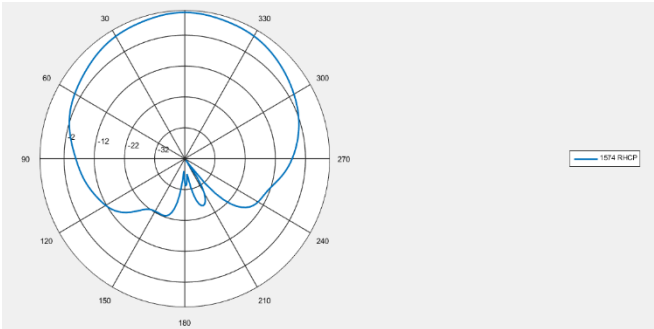
1230MHz



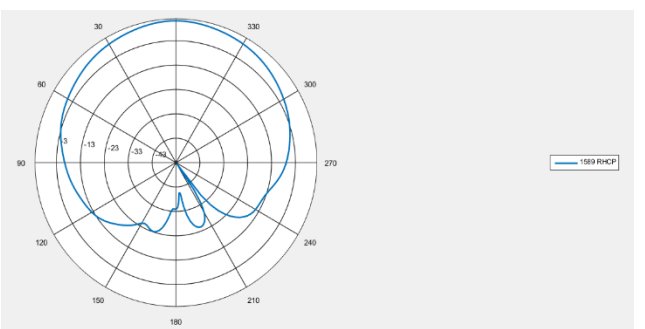
1268MHz



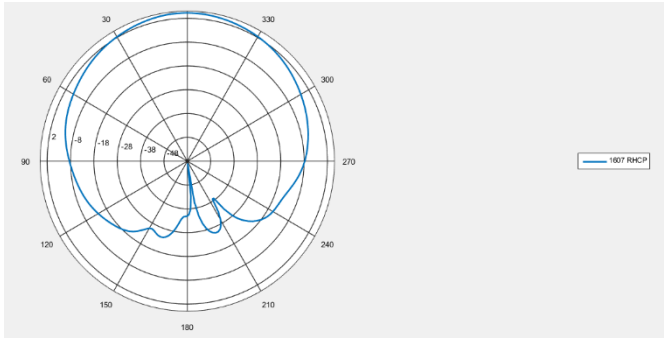
1559MHz



1575MHz



1590MHz

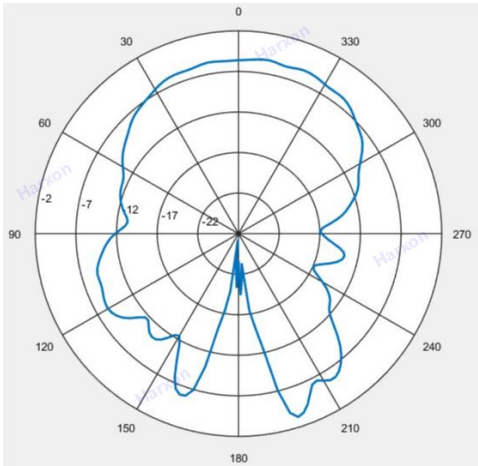


1610MHz

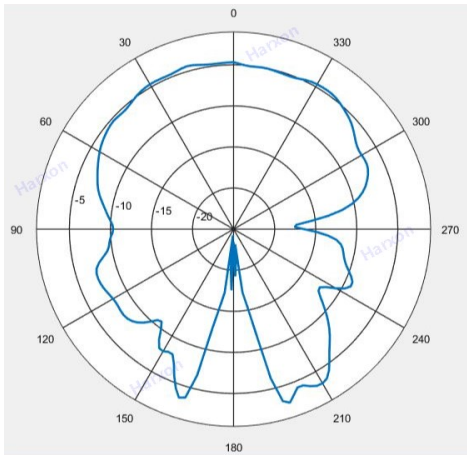
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4G Antenna Performance

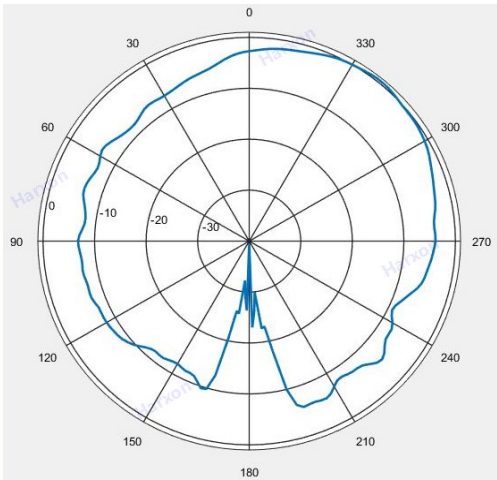
Frequency (MHz)	820	890	960	1710	1910	2110	2410	2450	2480	2690
Gain (dBi)	-3.1	0.1	-1.5	1.0	-5.7	0.5	-5.3	-5.5	-5.5	-8.9



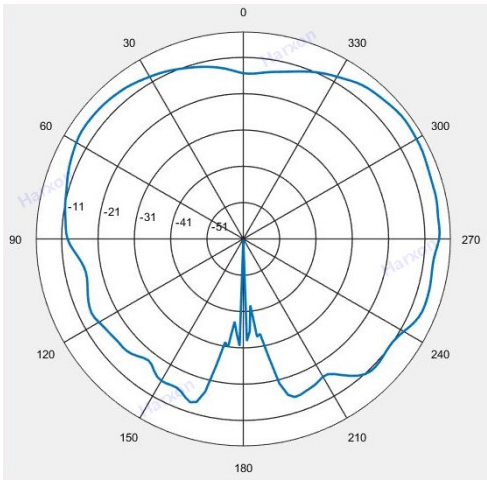
820MHz



960MHz

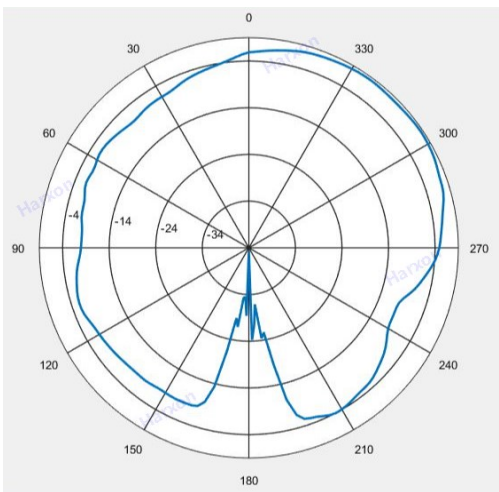


1710MHz

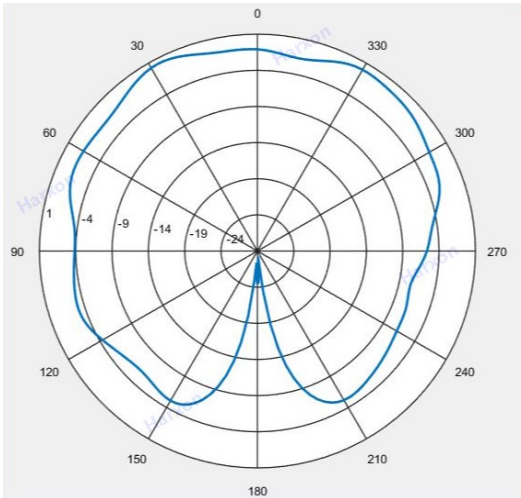


1910MHz

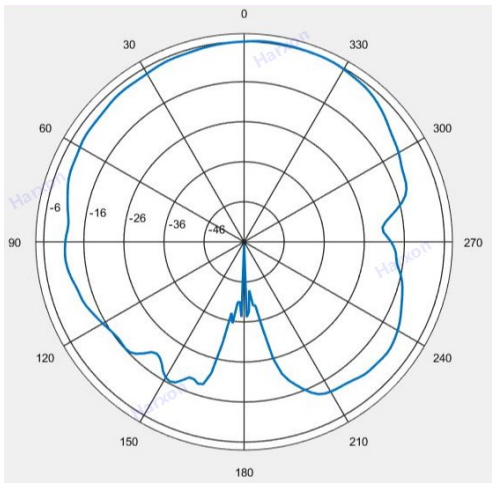
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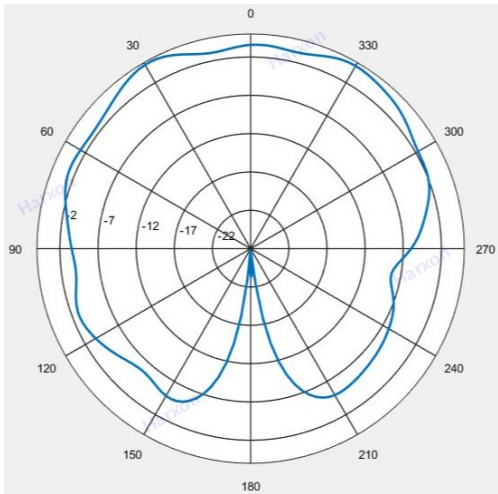
2110MHz



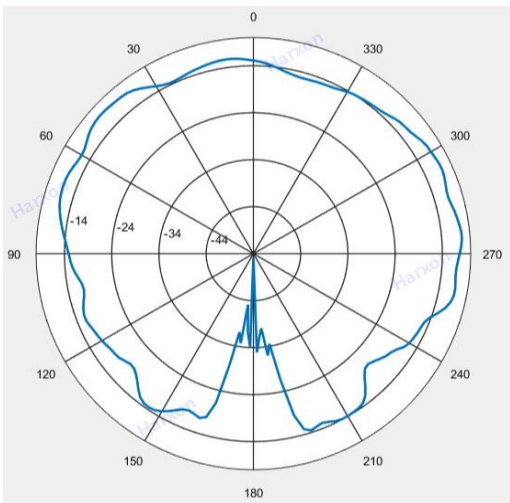
2410MHz



2450MHz



2480MHz



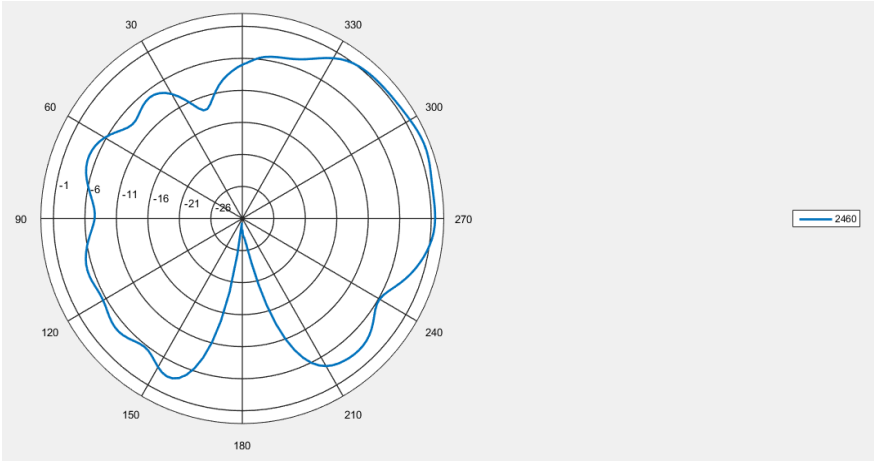
2690MHz

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WIFI Antenna Performance

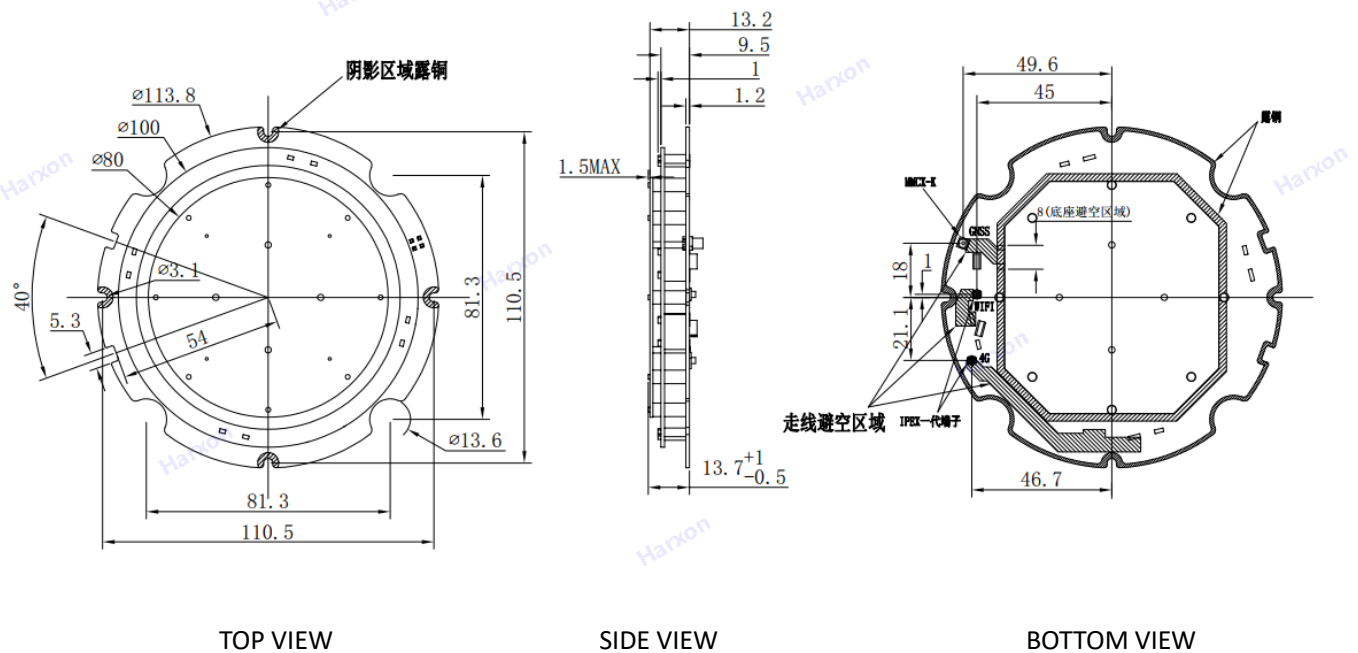
Frequency (MHz)	2410	2450	2480	5150	5550	5850
Gain (dBi)	0.2	0.5	0.4	-1.8	-1.2	-1.5



2450MHz

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Structure& Phase Center Drawing (mm) (Undeclared Tolerance:±0.3mm)



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