

The HX-CSX360A is an integrated measurement antenna covering all frequencies of GPS, GLONASS, BDS, and GALILEO. It is also compatible with 4G and WiFi operating bands, meeting the multi-system compatibility demands of modern surveying equipment. It finds extensive application in geodetic surveying, marine surveying, hydrographic surveying, dredging surveying, seismic monitoring, bridge deformation monitoring, landslide monitoring, and port container operations.

Seamless Inter-System Compatibility

Integrate GNSS antennas with 4G and WiFi antennas in a compatible, unified design for seamless integration by RTK system manufacturers. Deeply optimized isolation between antennas of different systems systematically resolves longstanding electromagnetic compatibility issues in RTK receivers, simplifying RTK system design while ensuring product stability and reliability.

Key Features

- Supports full-band signals across all four GNSS systems
- Supports 4G and WiFi/BT
- Stable phase center ensures millimeter-level positioning accuracy

Tracking in Complex Environments

The antenna unit features high gain and a wide beam pattern, ensuring robust signal reception even at low elevation angles. This guarantees rapid satellite acquisition and stable GNSS navigation signal output in challenging environments with obstructions, such as dense forests or building canopies.

Lightweight and Reliable Structure

Utilizing a composite structure of air dielectric and low-loss microwave laminate, the antenna achieves optimized performance with reduced overall weight, enhanced structural integrity, improved consistency, and more stable and reliable electrical characteristics.

Robust Anti-Interference Capability

The antenna's LNA delivers outstanding out-of-band suppression, effectively blocking unwanted electromagnetic signals to prevent receiver interference from other wireless communication systems.

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— Performance Parameters

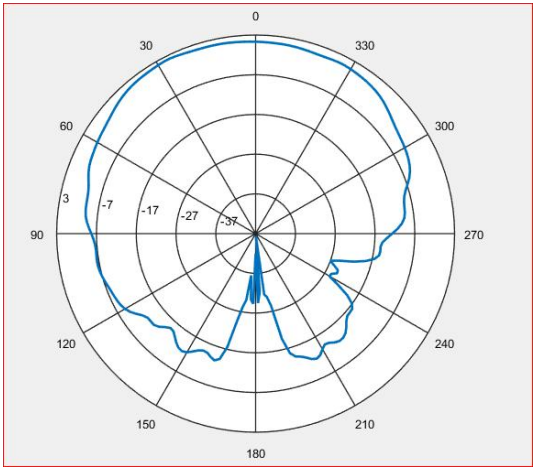
Antenna Characteristics	
Frequency Range	GPS L1/L2/L5 BDS B1/B2/B3 GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6 QZSS L1/L2/L5/L6 IRNSS L5 SBAS L1/L5 4G 699-960/1710-2690MHz BT 2402-2480 L-Band
Impedance	50 ohms
Polarization	Right-Hand Circular Polarization
Axis Ratio	≤3dB
Horizontal Coverage Angle	360°
VSWR	≤2.0
Maximum gain	GNSS RX: 5.54dBi Bluetooth: 2.08dBi
Phase center error	±2mm
Low Noise Amplifier Specifications	

Gain	L2Band: 34±2dB L1Band: 32±2dB
Noise Figure	≤2dB
Output VSWR	≤2.0
In-band flatness	±2dB
Operating Voltage	+3.3 ~ +12VDC
Operating Current	≤45mA
Differential Propagation Delay	≤5ns
Structural Characteristics	
Antenna Dimensions	Φ121.8*21.8 mm
Weight	≤220g
Connector Type	GNSS: IPEX Generation 1 Cable 4G: IPEX bGeneration 1 Cable BT: IPEX Generation 1 Cable
Mounting Method	4 mounting screws

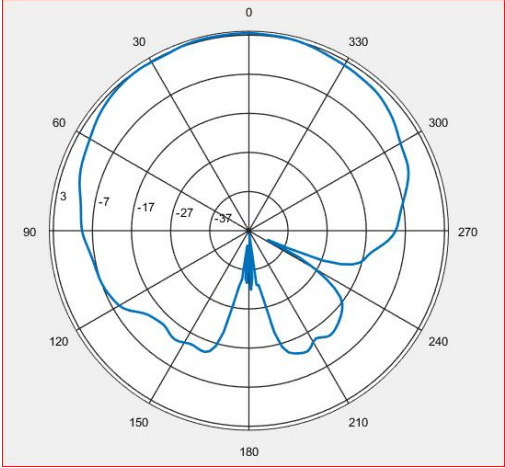
HX-CSX360A

GNSS Antenna Performance

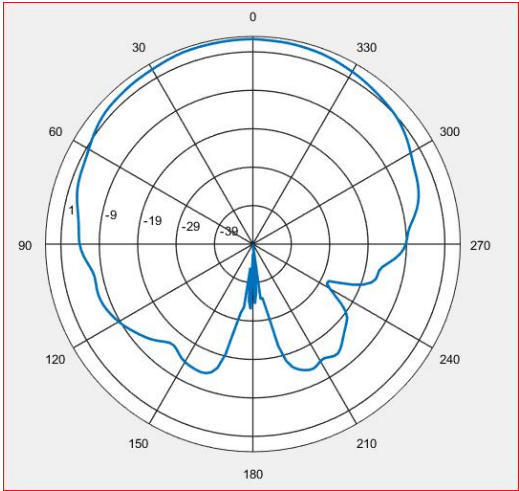
Frequency (MHz)	1176	1205	1227	1268	1542	1559	1575	1606
Gain (dBi)	3.51	4.7	5.42	5.54	2.78	4.81	5.36	5.07



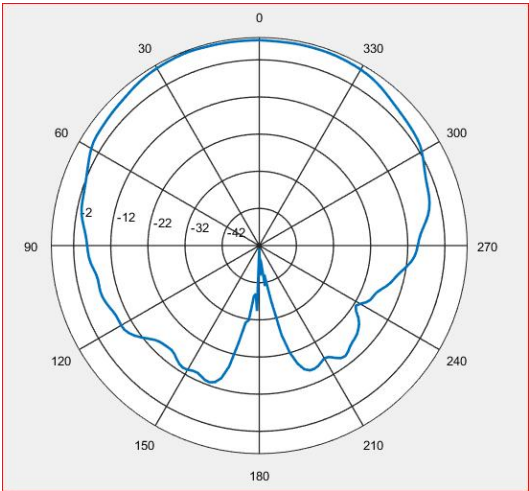
1176MHz



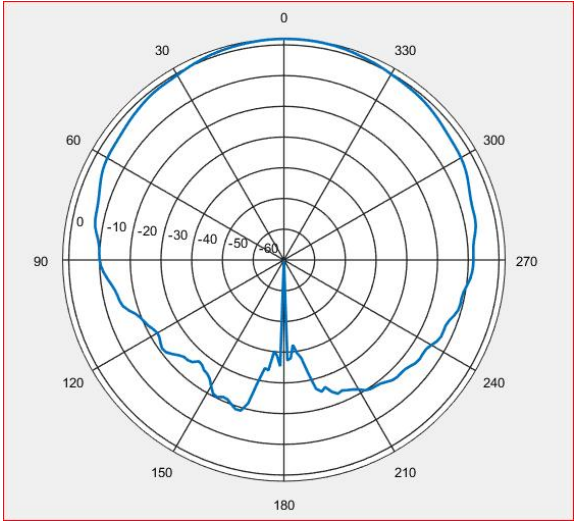
1205MHz



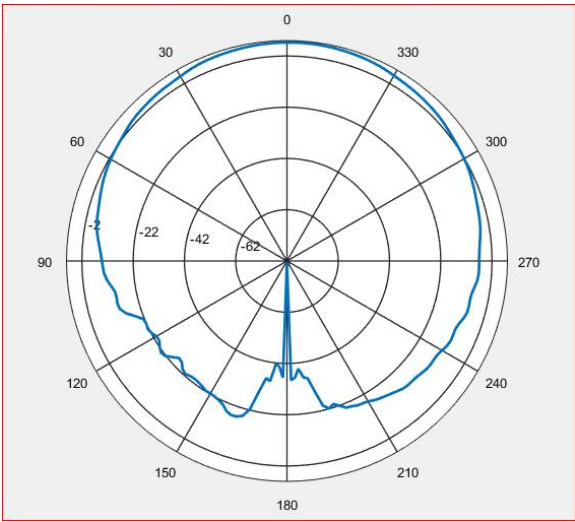
1227MHz



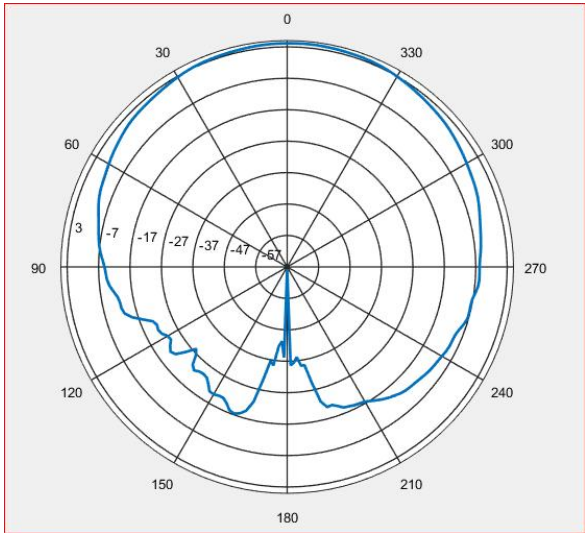
1268MHz



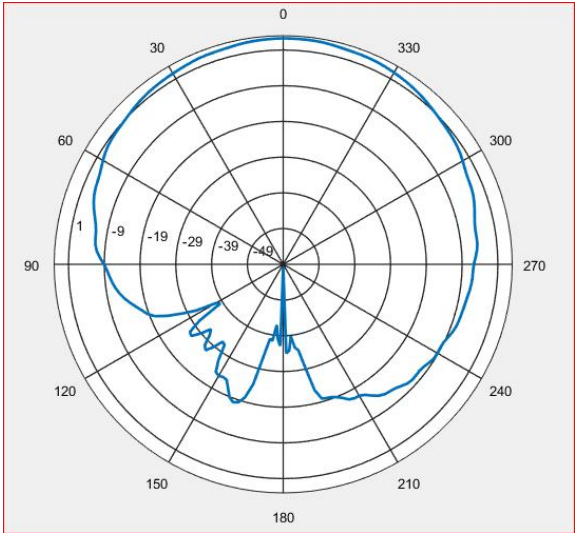
1542MHz



1559MHz



1575MHz

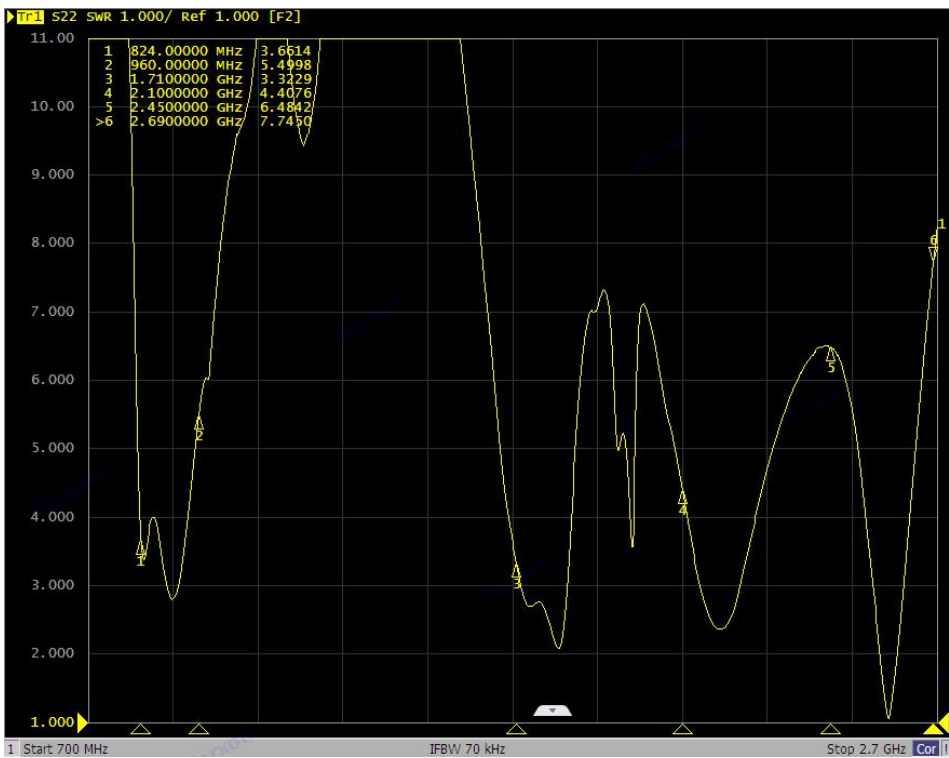


1606MHz

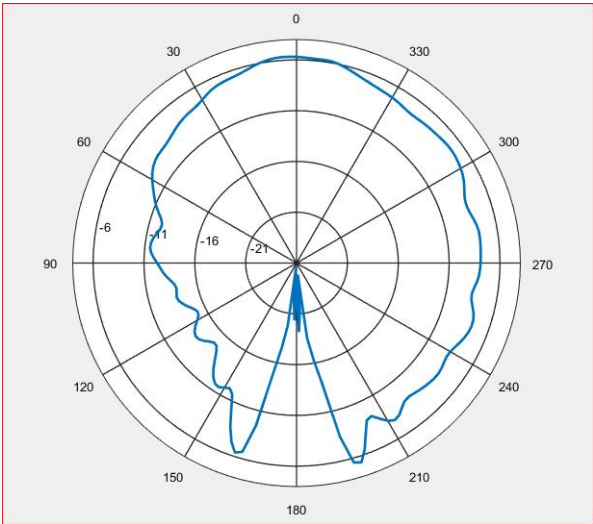
4G Antenna Performance

4G-Main Antenna Performance

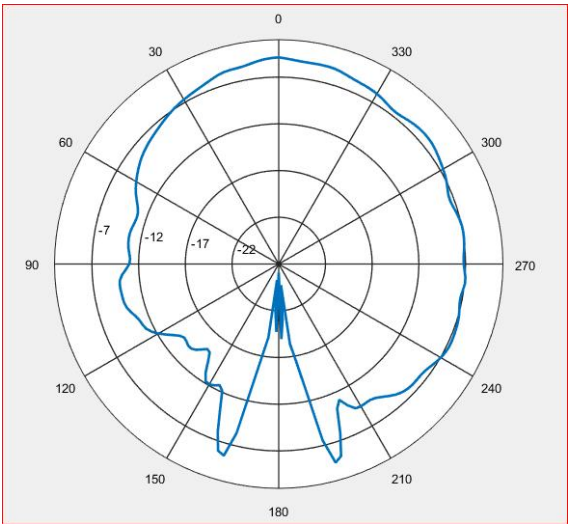
Frequenc (MHz)	820	890	960	1710	1810	1910	2010	2110	2210	2310	2410	2450	2610	2690
Gain (dBi)	-4.83	-1.19	-4.10	-1.24	2.24	-5.1	-5.4	-2.09	-1.33	-1.48	-2.79	-3.5	-2.29	-2.8



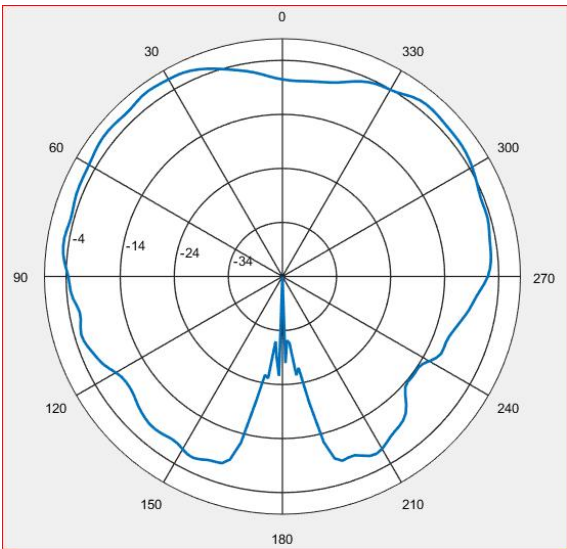
4G-VSWR



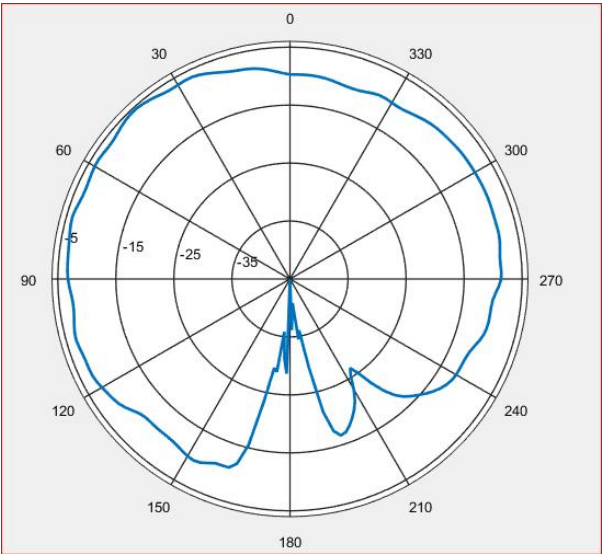
820MHz



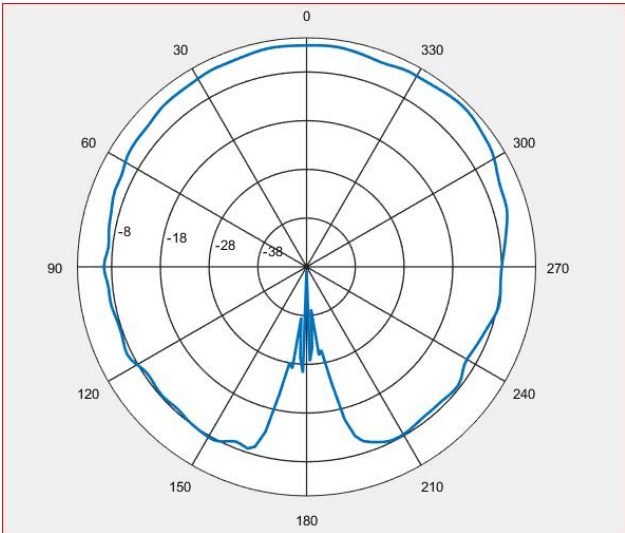
960MHz



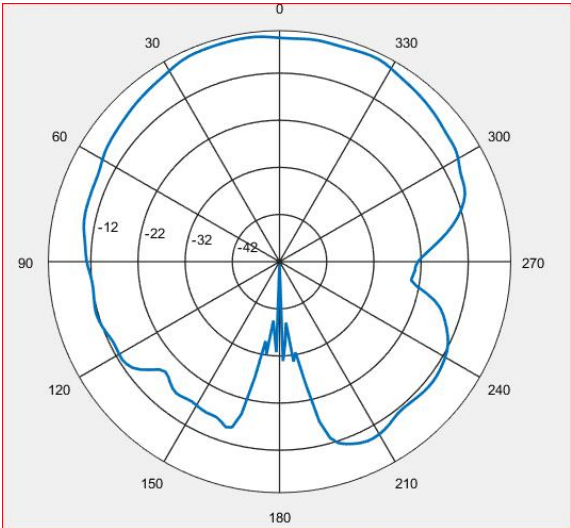
1710MHz



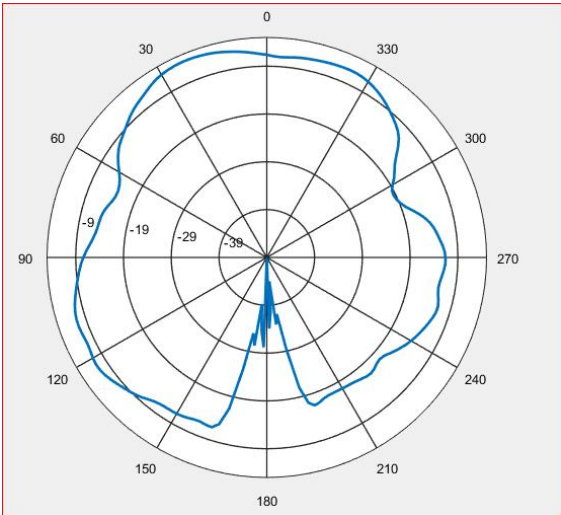
1910MHz



2110MHz



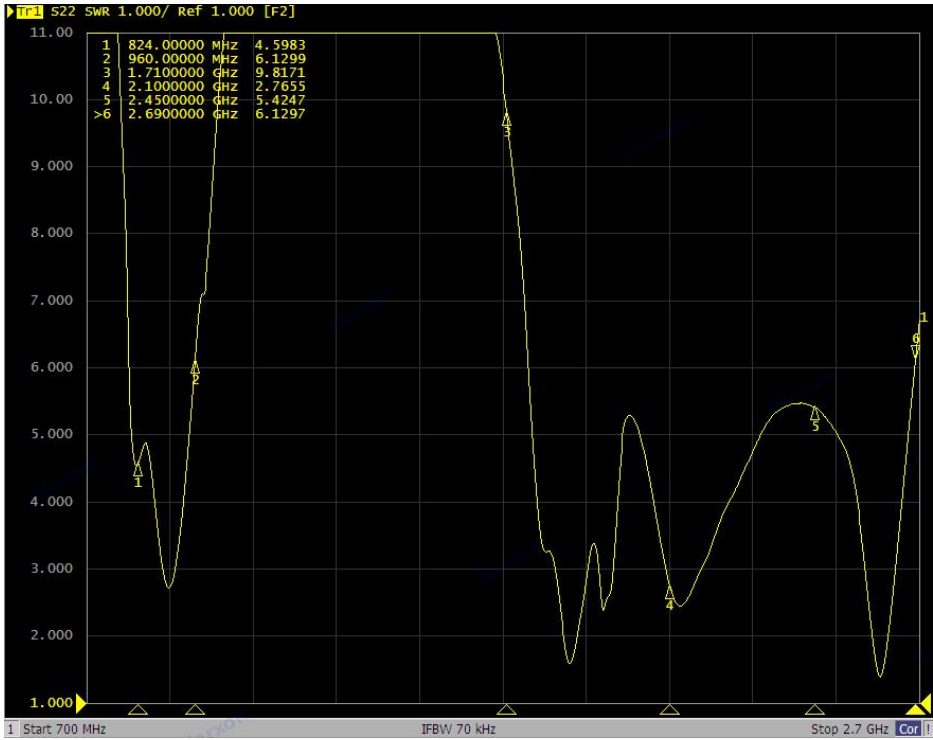
2450MHz



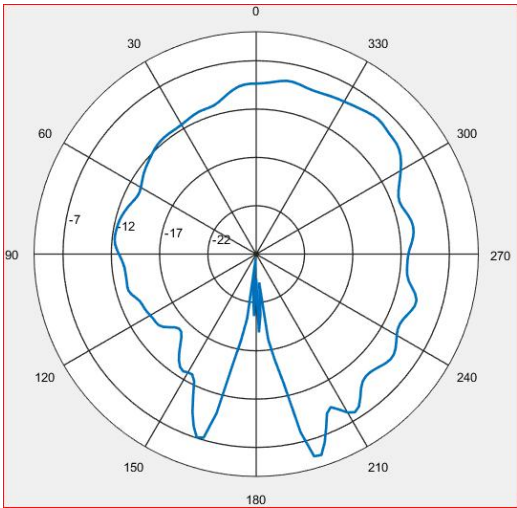
2690MHz

4G-DIV Antenna Performance

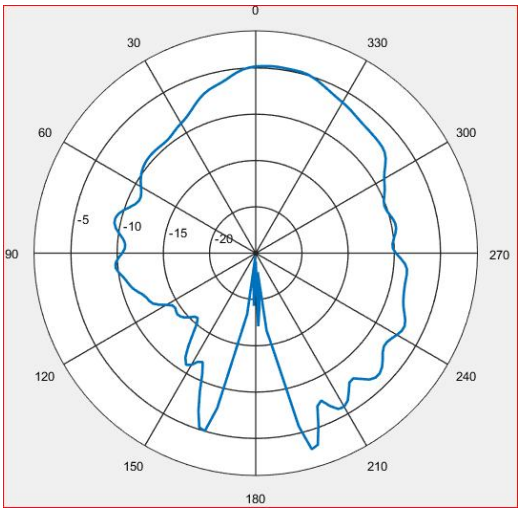
Frequency (MHz)	820	890	960	1710	1810	1910	2010	2110	2210	2310	2410	2510	2610	2690
Gain (dBi)	-4.38	0.66	-1.93	-0.97	-0.97	-3.14	-7.94	-3.21	-1.04	-4.28	-5.37	-5.34	0.07	-4.52



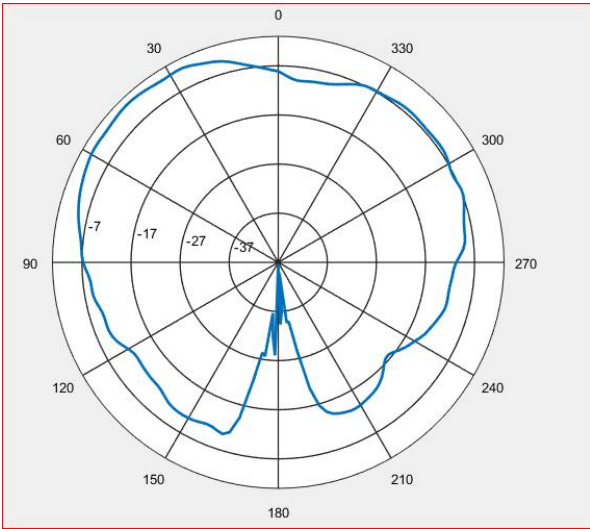
4G_VSWR



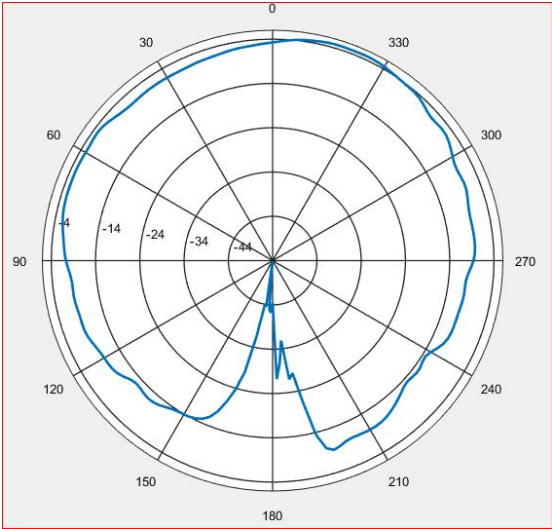
820MHz



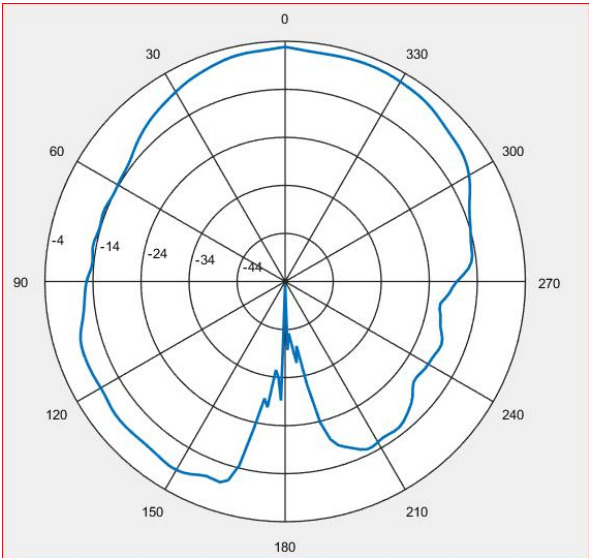
960MHz



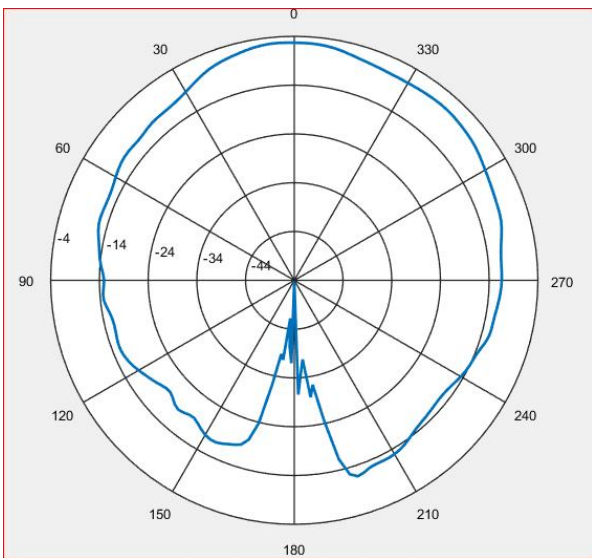
1710MHz



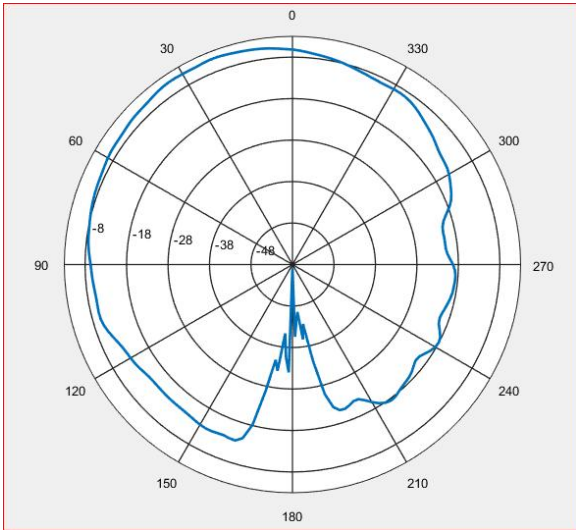
1910MHz



2110MHz



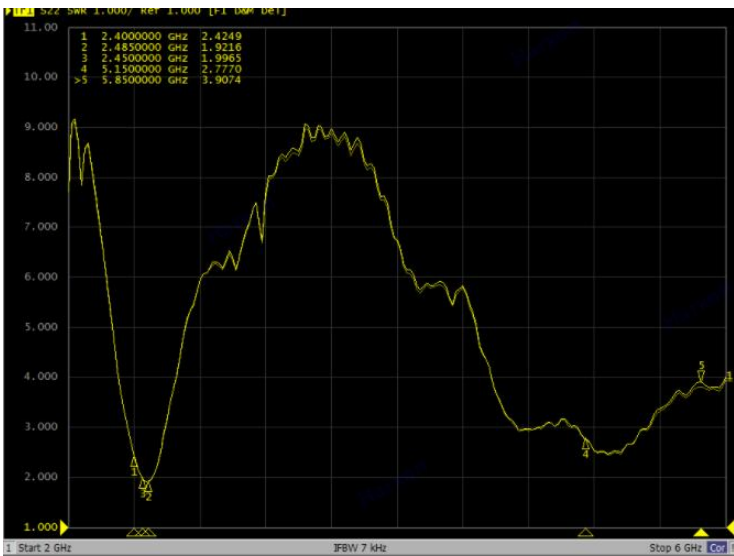
2450MHz



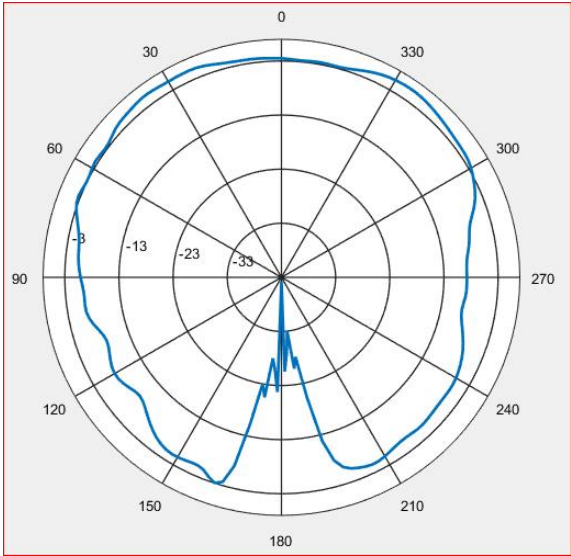
2690MHz

Bluetooth Antenna Performance

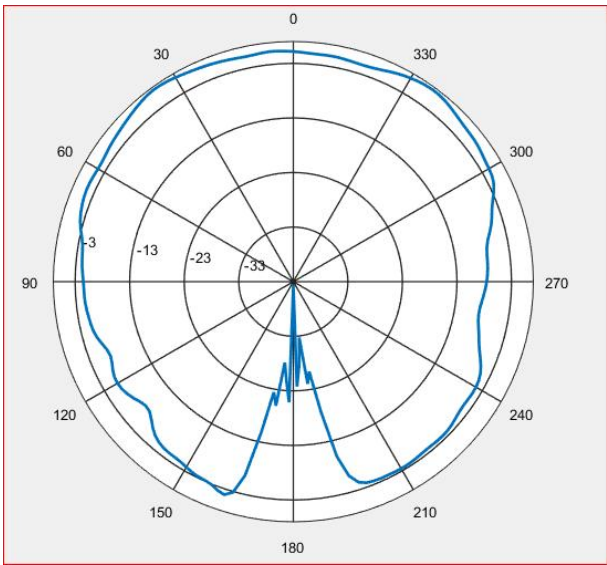
Frequency (MHz)	2402	2450	2480	5100	5300	5500	5800
Gain (dBi)	0.81	2.08	2.08	1.54	2.51	2.4	1.2



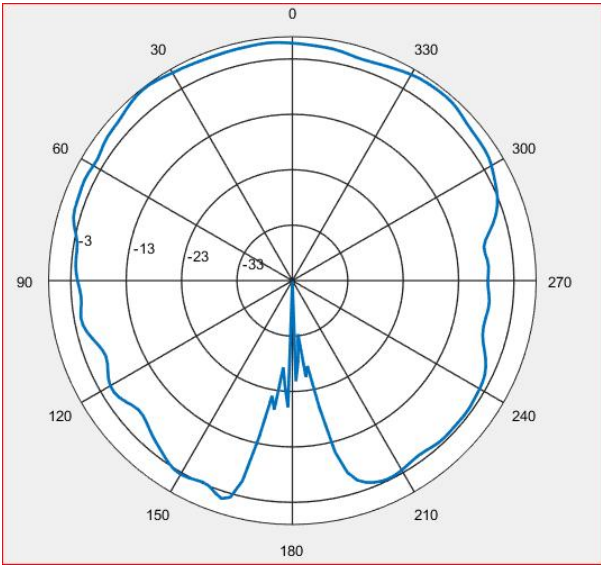
BT VSWR



2402MHz

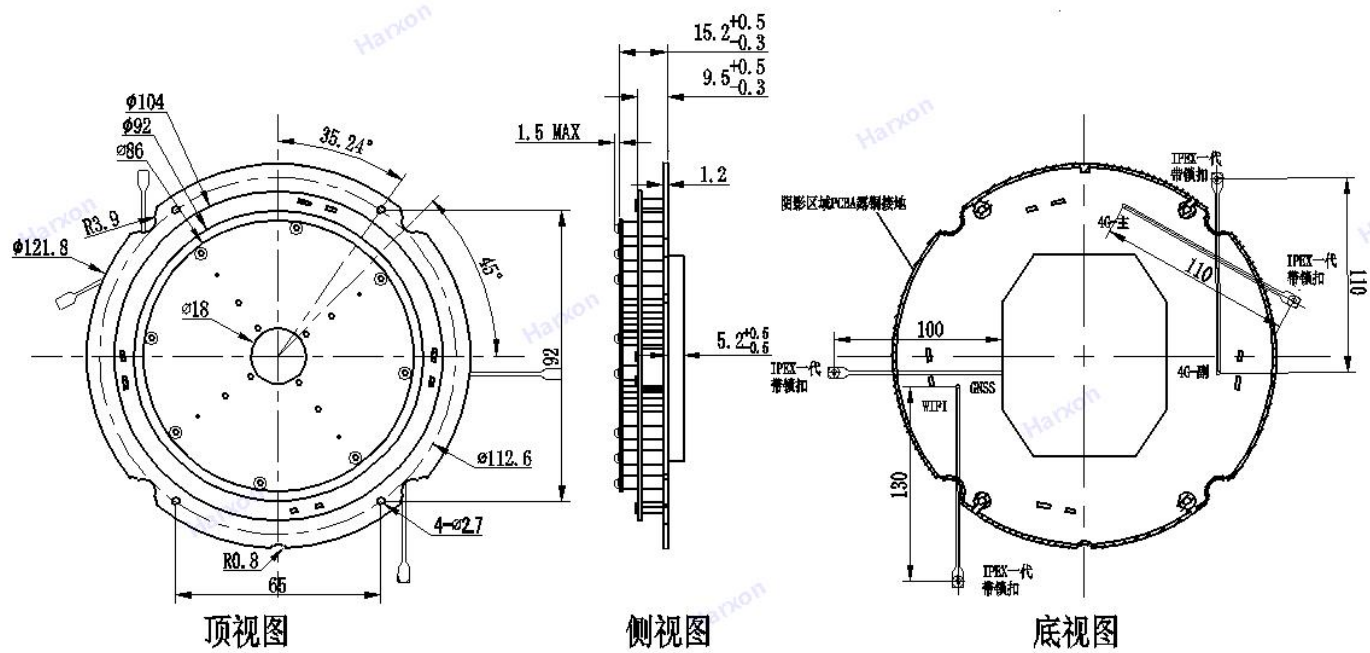


2450MHz



2480MHz

Product Three-View Diagram



Product Label

Label Dimensions: 15*30mm. Label content as shown below (content is for illustrative purposes only).

