

WiFi + GPS Combinational External Antenna



AEACBK046014-C2WG



ESD Sensitive



Ø46.6 x 14.5 mm
RoHS/RoHS II Compliant

MSL = N/A: NOT APPLICABLE

FEATURES

- IP67 Dust and Waterproof
- 1574.42MHz/2450MHz/5500MHz frequencies
- LNA Gain up to 20dBi+/-2dB
- VSWR ≤ 1.5/2.5 for GPS/WiFi
- RHCP/Linear polarization for GPS/WiFi

APPLICATIONS

- GPS/GLONASS
- WiFi/Bluetooth/Zigbee,
- ISM devices
- Use on outdoor and indoor assets
- M2M
- Telematics
- Commercial vehicles/ Fleet management
- Remote Technology/Monitoring

ELECTRICAL SPECIFICATIONS

Parameters	Min.	Typ.	Max.	Units	Note
Frequency		1575.42 ± 3MHz		MHz	
Bandwidth		CF ± 4MHz		MHz	
VSWR			1.5		
Polarization		RHCP			(Right Hand Circular Polarization)
Impedance		50		Ω	
Gain		0		dBi	(Zenith)
Operating Temperature	-40		+85	°C	
Input Power			10	W	

LOW NOISE AMPLIFIER (LNA)

Parameters	Min.	Typ.	Max.	Units	Note
DC Voltage		3.3		V	
Gain		20±2dB		dB	
Output VSWR			2.0		
Noise Figure			1.5	dB	
DC current			10	mA	

Wifi ANTENNA

Parameters	Min.	Typ.	Max.	Units	Note
Frequency Range		2400~2483.5/4800~5825		MHz	
VSWR			2.5		
Polarization Model		Linear			
Impedance		50		Ω	
Gain		2		dBi	(Zenith)
Operating Temperature	-40		+85	°C	
Input Power			10	W	

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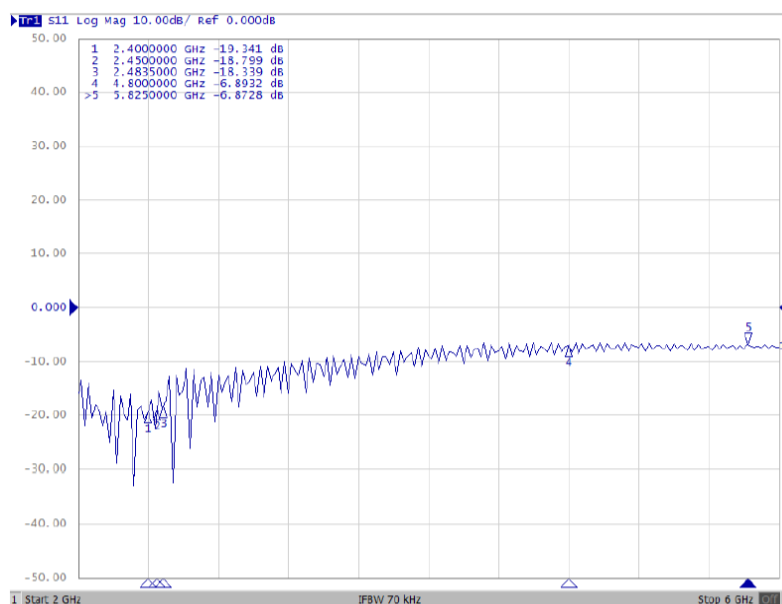
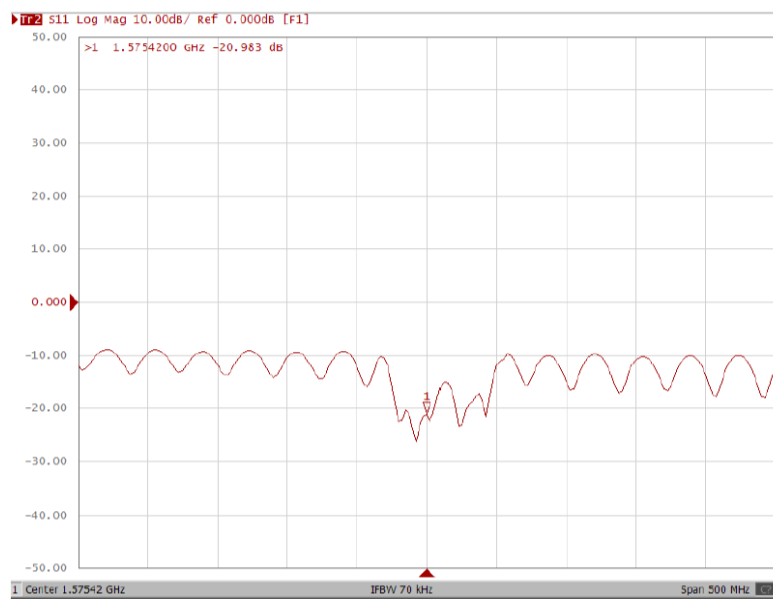
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RETURN - LOSS CHARACTERISTICS

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GPS S11 Return Loss

WiFi S11 Return Loss



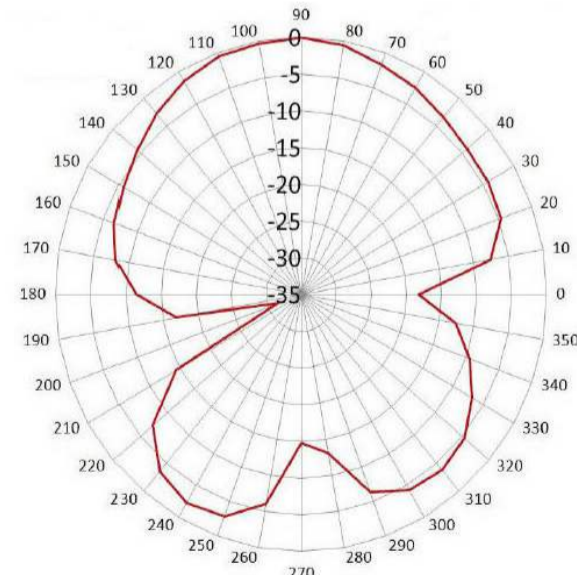
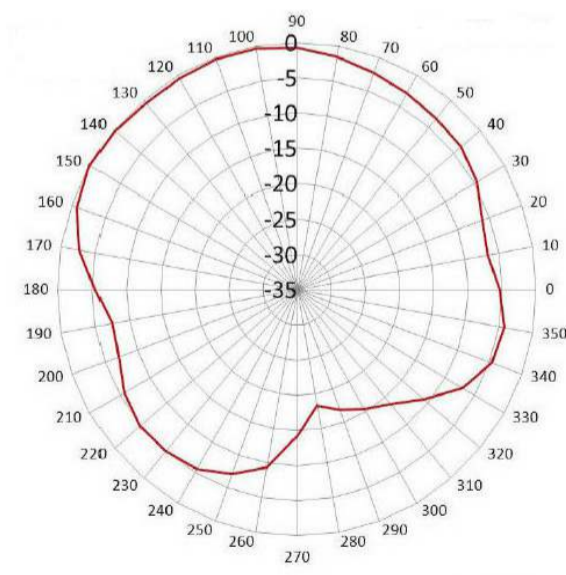
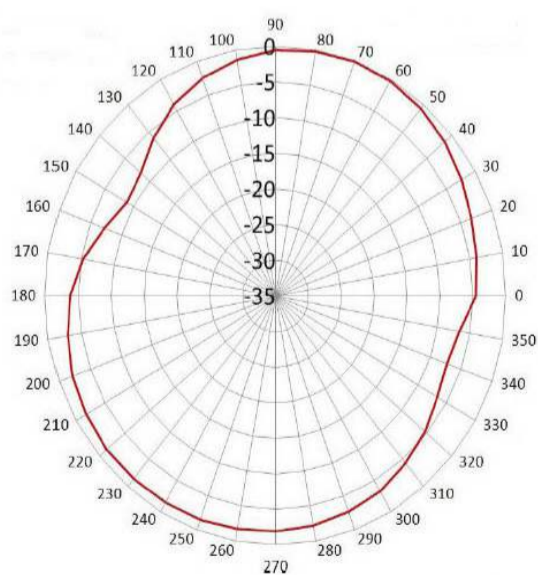
RADIATION PATTERNS

GPS Antenna 2D Patterns

XY Plane

XZ Plane

YZ Plane



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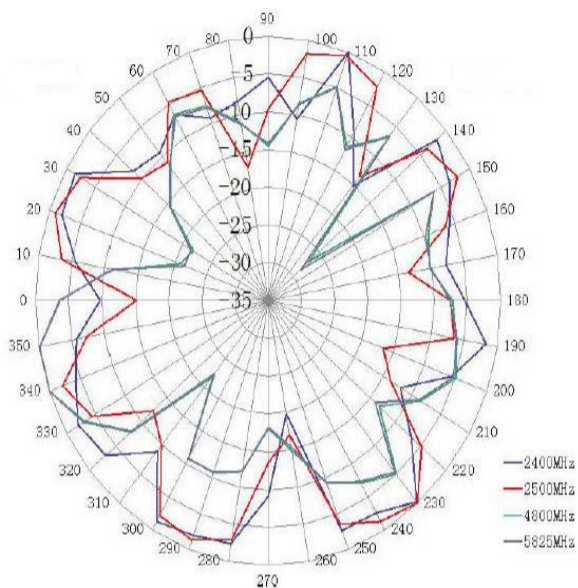
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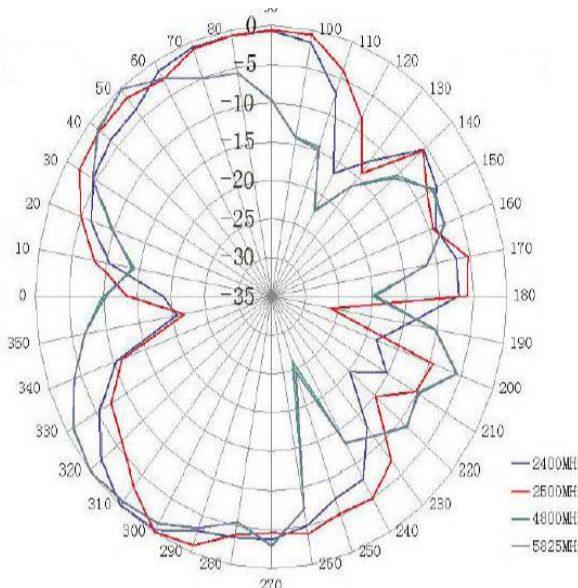
RADIATION PATTERNS

WiFi Antenna 2D Patterns

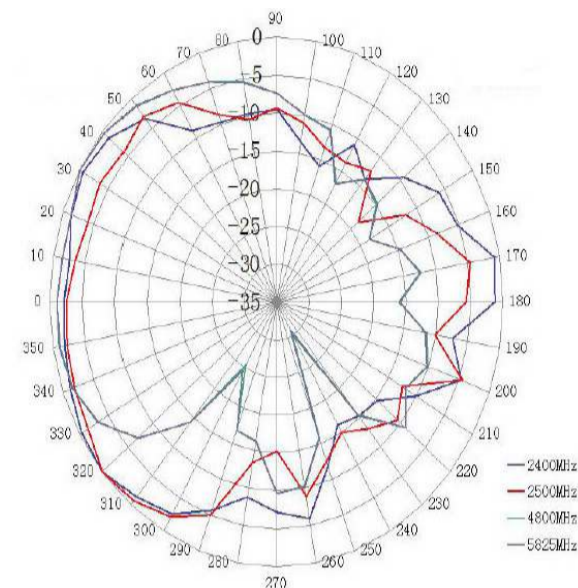
XY Plane



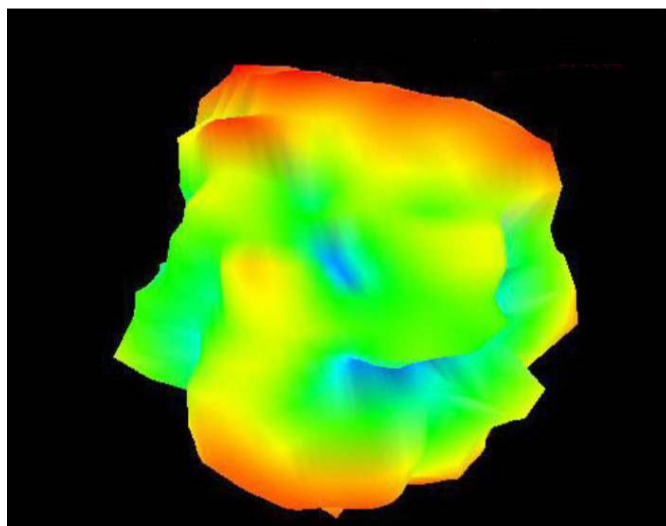
XZ Plane



YZ Plane



WiFi Antenna 3D Pattern



Frequency (MHz)	2400	2450	2483
Peak Gain (dBi)	-4.2	-4.50	-4.53
Efficiency (%)	61	61	63

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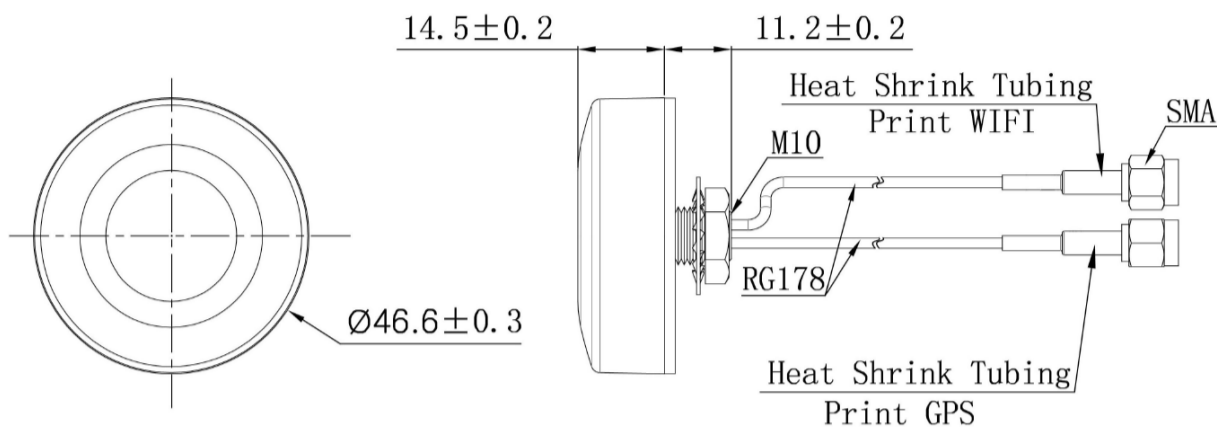
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DIMENSIONS



Unit: mm

Parameters	Description
Cable Length	3.00 m
RF Cable	RG178
RF Connector	SMA and others
Radome Material	ABS
Mounting Type	Screw



PACKAGING

Each 700 x 320 x 155 mm size carton includes 100 pcs antenna, 8kgs/carton.

Unit: mm

