

ANT-121-T44G

Vandal Resistant 4G/5G 4x4 MIMO + GPS Omni Antenna



Applications

- Vehicle Location Tracking
- Fleet Management
- Mobile Video Surveillance
- Recreational Navigation
- Boats
- Public Transit
- EMS Vehicles

Product Features

- Vandal Resistant – Through Hole Mount
- Low Profile ~ 2.4 inches Tall
- Weatherproof
- 3 – 5 dBi Peak 5G Gain -- 28 dB GPS (LNA)
- Omni-Directional MIMO
- 5x SMA Male Connectors on Low-Loss 195 Coax
- Made in Taiwan



Ordering Information

Part No.	Description
ANT-121-T44G-B-02	Black Antenna with 2 ft Coax
ANT-121-T44G-B-06	Black Antenna with 6 ft Coax
ANT-121-T44G-W-02	White Antenna with 2 ft Coax
ANT-121-T44G-W-06	White Antenna with 6 ft Coax

Country of Origin: Taiwan
HTS Code: 8517.71.00.00
TAA Compliant: Yes

General Description

This low profile (2.4 inch tall) fixed mount omni-directional 5G 4x4 MIMO external 5-in-1 combination antenna provides 3 to 5 dBi of gain and supports all sub 6 GHz cellular frequency bands for AT&T, Verizon, T-Mobile, Bell, Rogers, Telus and other carriers worldwide. It also includes an integrated L1 GPS element for simplified installation.

Permanently mounts via a 7/8 in (20 mm) hole with internal nut. Resists vandalism with no exposed coax cable, a high impact polycarbonate radome shell and an extra thick stainless steel threaded mounting post and hardware. Completely waterproof (IP67).

Integrated SMA male plug connectors mate with SMA female jacks found on most cellular modems, routers, and GPS receivers. GPS antenna supports both active and passive operation and includes an integrated 28 dB low noise amplifier (LNA)

Ideal for use in fleet management, automatic vehicle location (AVL), position tracking for autonomous farm equipment, robots and drones, precision timing, mobile video and recreational navigation applications.

* For optimum performance this antenna should be mounted on a flat, horizontal metal surface at least 8 inches in diameter.

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Electrical Specifications – 4G/5G

Parameter	Rating
Frequency Range	600~6000 MHz All 4G & 5G Sub-6 (FR1) Bands including FirstNet and CBRS (OnGo)
Peak Gain	3-5 dBi frequency dependent
Radiation Pattern	Omni-Directional
VSWR	< 2.0:1 in band
Inter-Element Isolation	-8.5 dB min in band
Input Impedance	50 Ohm
Polarization	Vertical
Max Input Power	50 W
DC Grounded	No
Ground Plane	8 inch (20 cm) diameter min

Electrical Specifications – GNSS

Parameter	Rating
Frequency Range	1575.42 ~1602.00 MHz \pm 1.023 MHz GPS L1 / Galileo E1 / BeiDou B1 Bands
Passive Gain (Zenith°)	2 dBic min
Low Noise Amplifier Gain (LNA)	27~29 \pm 3.0dB typical
VSWR	\leq 1.5:1
Noise Figure	1.5 dB typical
Ex-Band Attenuation	$f_0 = 1575.42$ MHz $f_0 \pm 20$ MHz 7dB min $f_0 \pm 30$ MHz 12dB min $f_0 \pm 50$ MHz 20dB min $f_0 \pm 100$ MHz 30dB min
Impedance	50 Ohm
Polarization	RHCP
Max Input Power	50 W
DC Operating Voltage	2.3 - 5.0
DC Current	6.6 - 22 mA
DC Grounded	No

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Mechanical Specifications

Parameter	Rating
Connector Type	5x SMA Male (plug)
Cable Type	4G/5G: 4x 2 ft (0.6 m) or 6 ft (1.8 m) Low-loss CFD195 coax GPS: 1x 2 ft (0.6 m) or 6 ft (1.8 m) Low-loss RG174 coax
Height	Radome: 2.4 inches (60 mm) above mounting surface Overall: 3.4 inches (84 mm)
Diameter	Radome: 2.2 inches (54.7 mm) at base Mounting post: 7/8 inches (20 mm x 1.5 mm thread)
Weight	17 oz (482 g)
Materials	Radome: UV Stabilized Polycarbonate Connectors: Gold-Plated Brass Mounting Post & Hardware: Stainless Steel Gasket: Rubber RoHS Compliant
Antenna Color	Black or White
Operating Temperature	-30°C to +75°C
Environmental Rating	IP67 (waterproof)
Shock (Drop Test) Shock (Half Sine Wave)	60 cm drop on concrete 10 msec

Operation of this device outside the parameter ranges given above may cause permanent damage.

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Mechanical Dimensions

01 Top Plastic Shell	PC	Black	1
02 Base Housing	PC	Black	1
03 Rubber Adhesive	Rubber	Gray	1
04 Spring washer	Stainless steel		1
05 NUT M20x1.5P	Stainless steel		1
06 CFD195 Low Loss Cable	PVC	Black	4
07 Label 5G/LTE	PET	Silver	4
08 SMA(M) ST CFD195	Brass	AuPlated	4
09 RG174 Low Loss Cable	PVC	Black	1
10 Label GPS	PET	Silver	1
11 SMA(M) ST RG174	Brass	AuPlated	1

ROHS
IP67 Waterproof

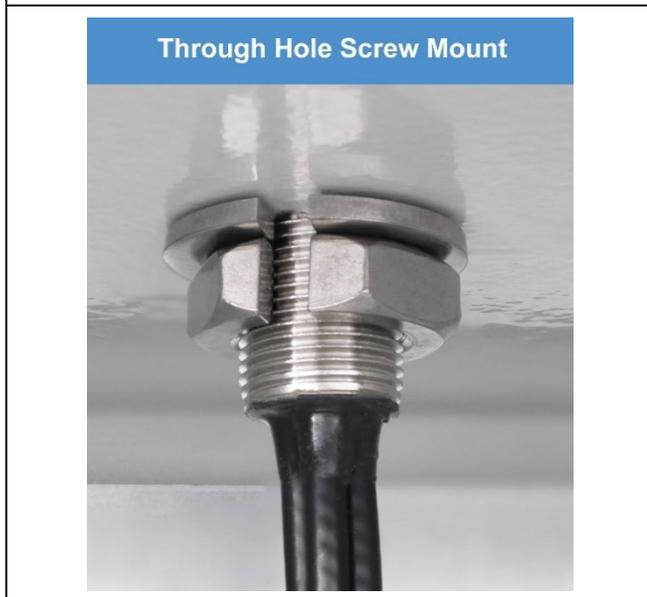
 Third angle projection	CUSTOMER'S	MODEL	PARTS NUMBER	FREQUENCY	UNIT	SCALE	DATE	VERSION
					M/M			1
ANT-121-T44G	TOLERANCE	X, XX±0.15	NAME	PARTS NUMBER	PPROVED	CHECKED	DRAWING	DESIGNED
	SURFACE ROUGHNESS	$\frac{S}{\sqrt{V}}$	APPEARANCE		Jack		Jimmy	Jimmy

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Additional Product Images



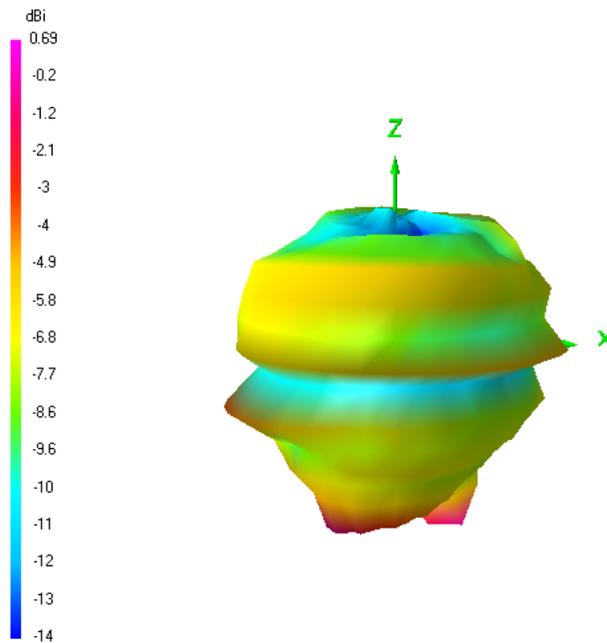
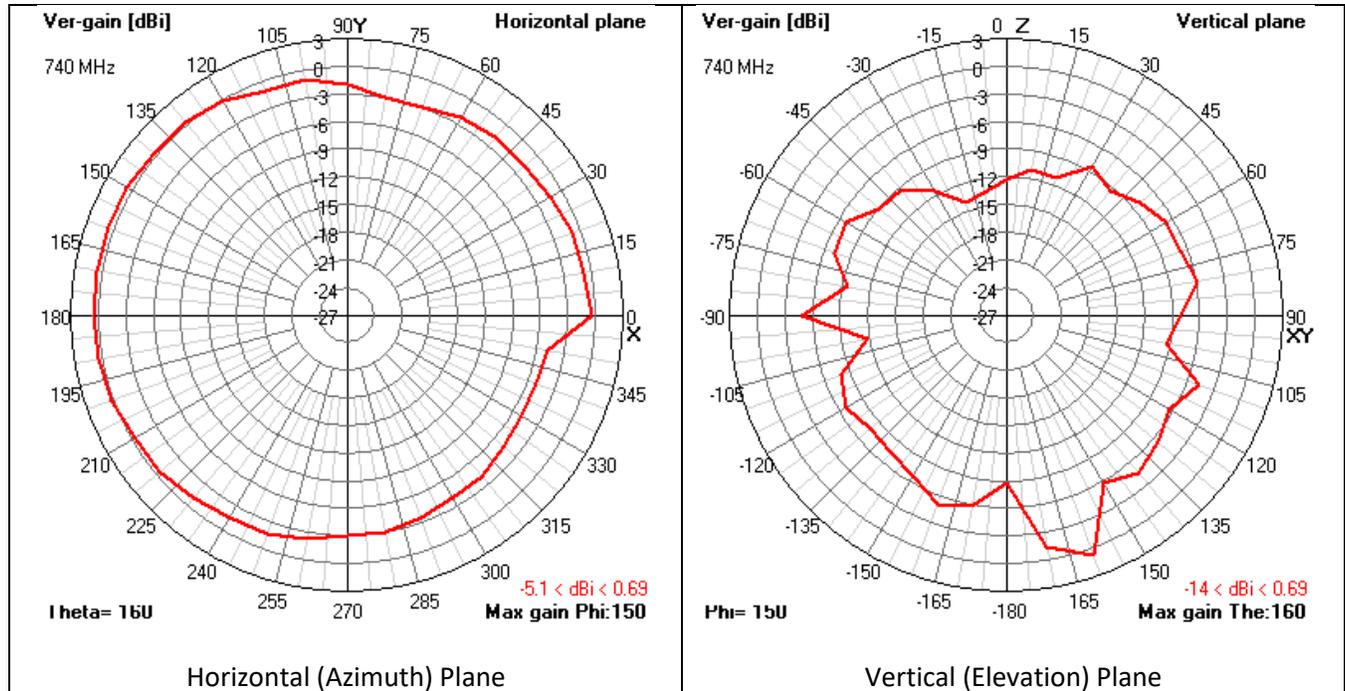
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Radiation Patterns

740 MHz



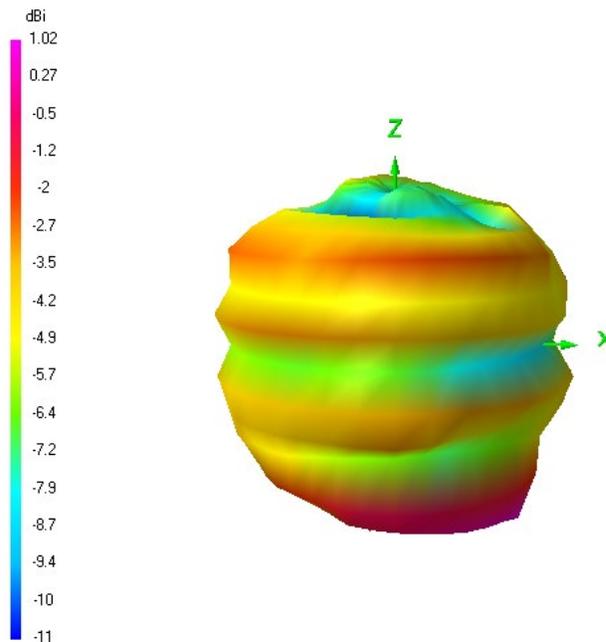
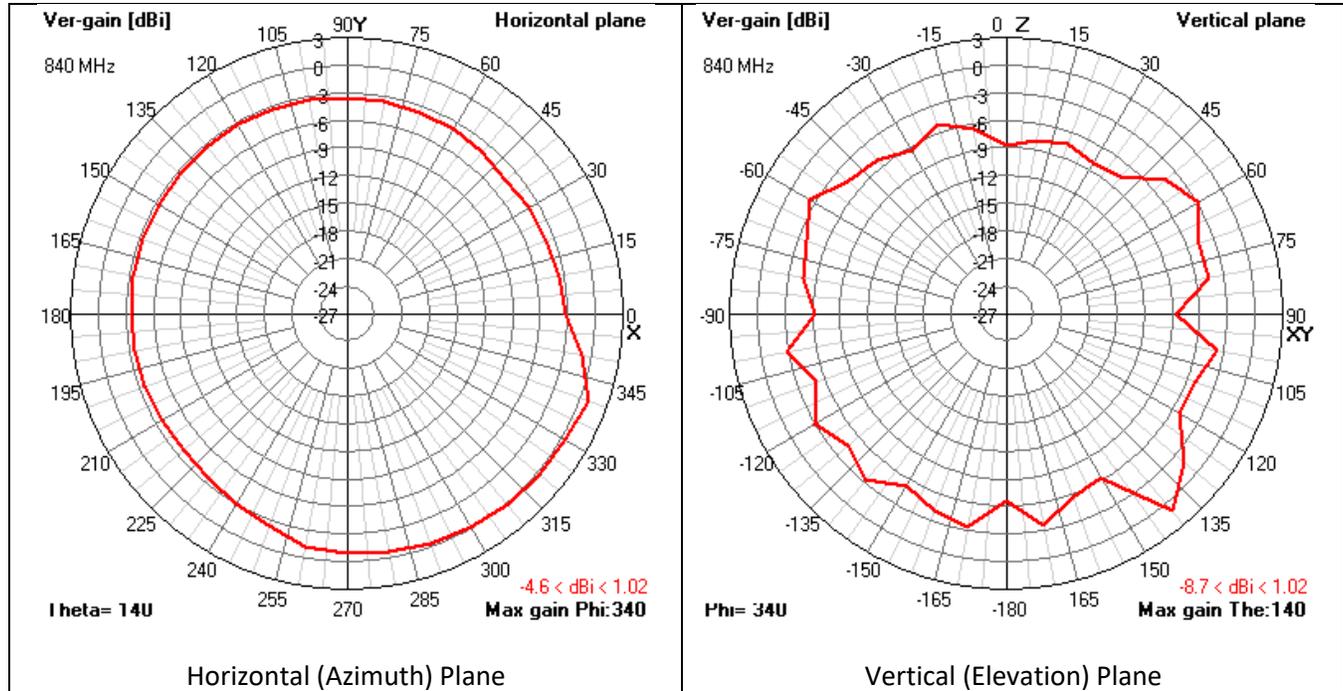
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Vandal Resistant 4G/5G 4x4 MIMO + GPS Omni Antenna



Radiation Patterns

840 MHz



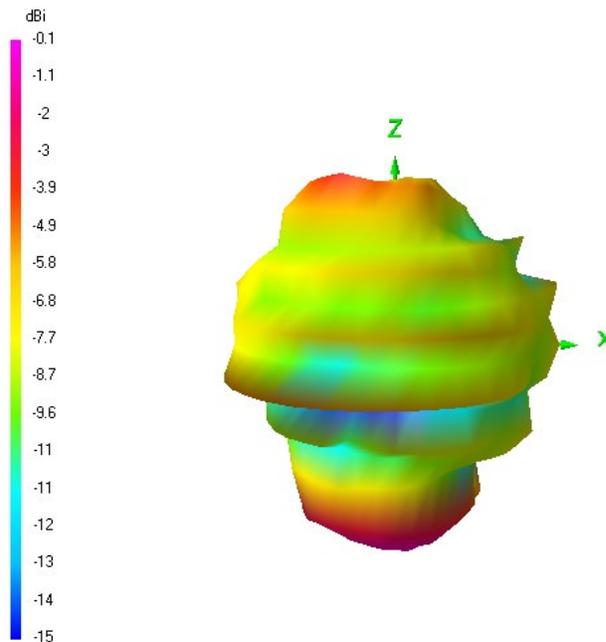
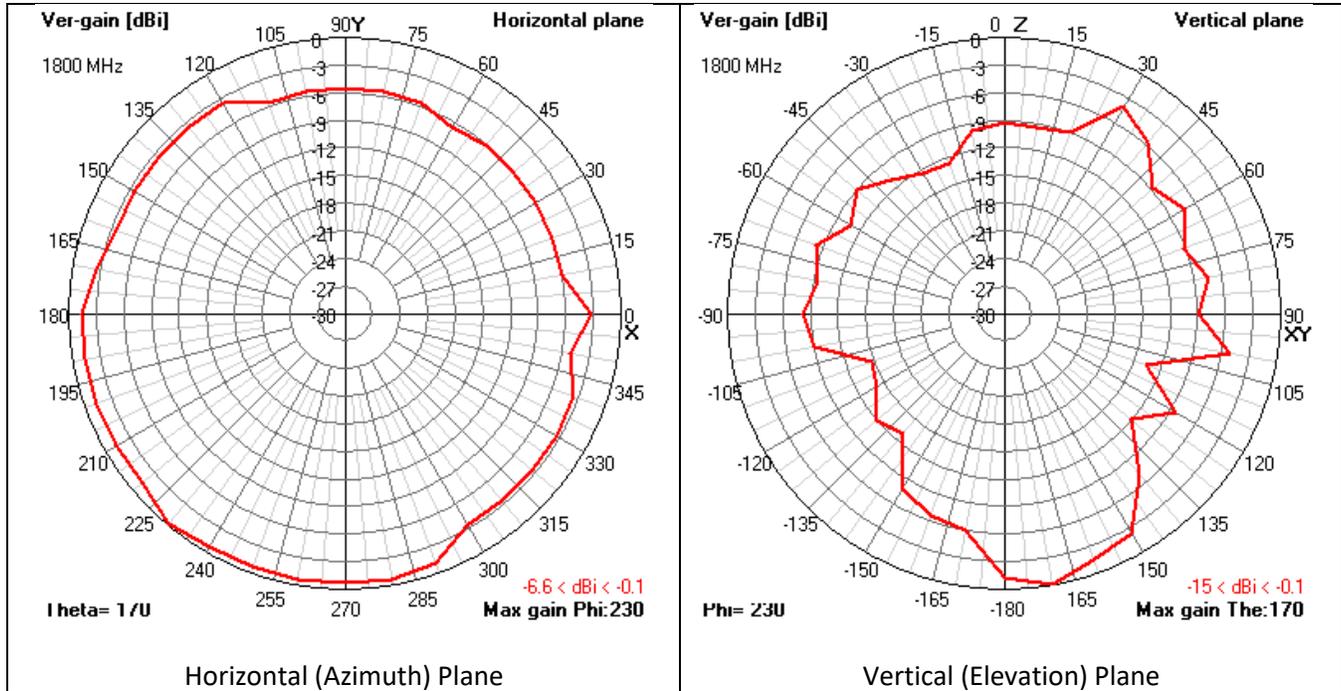
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Radiation Patterns

1800 MHz



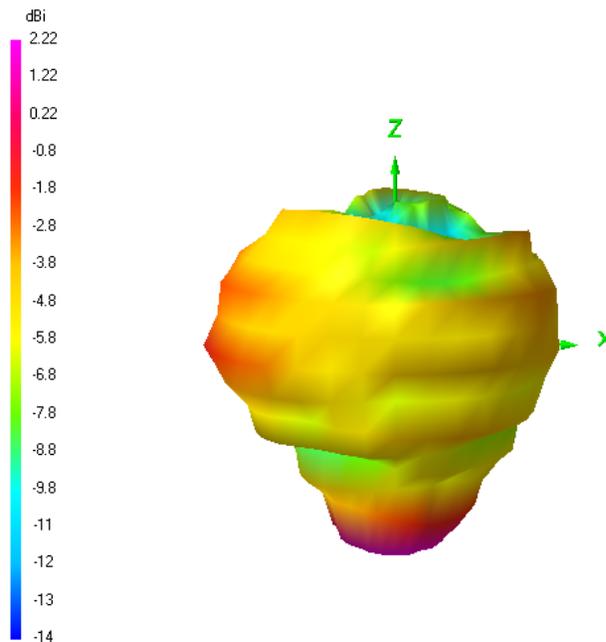
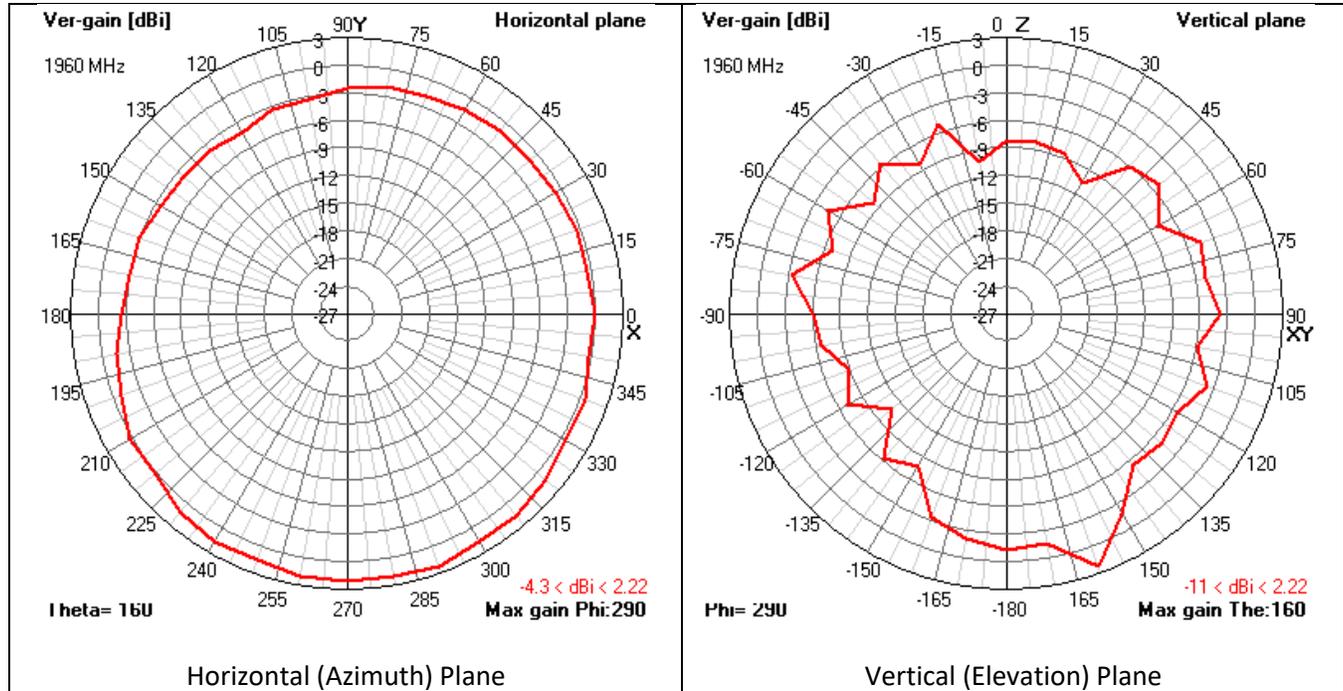
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Vandal Resistant 4G/5G 4x4 MIMO + GPS Omni Antenna



Radiation Patterns

1960 MHz



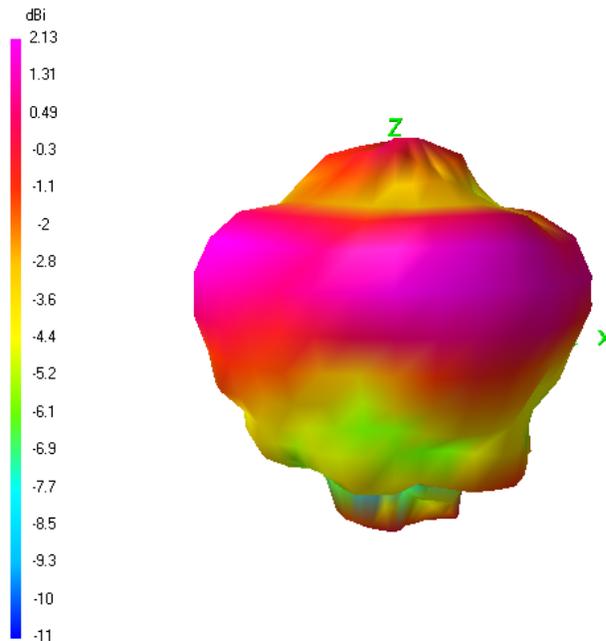
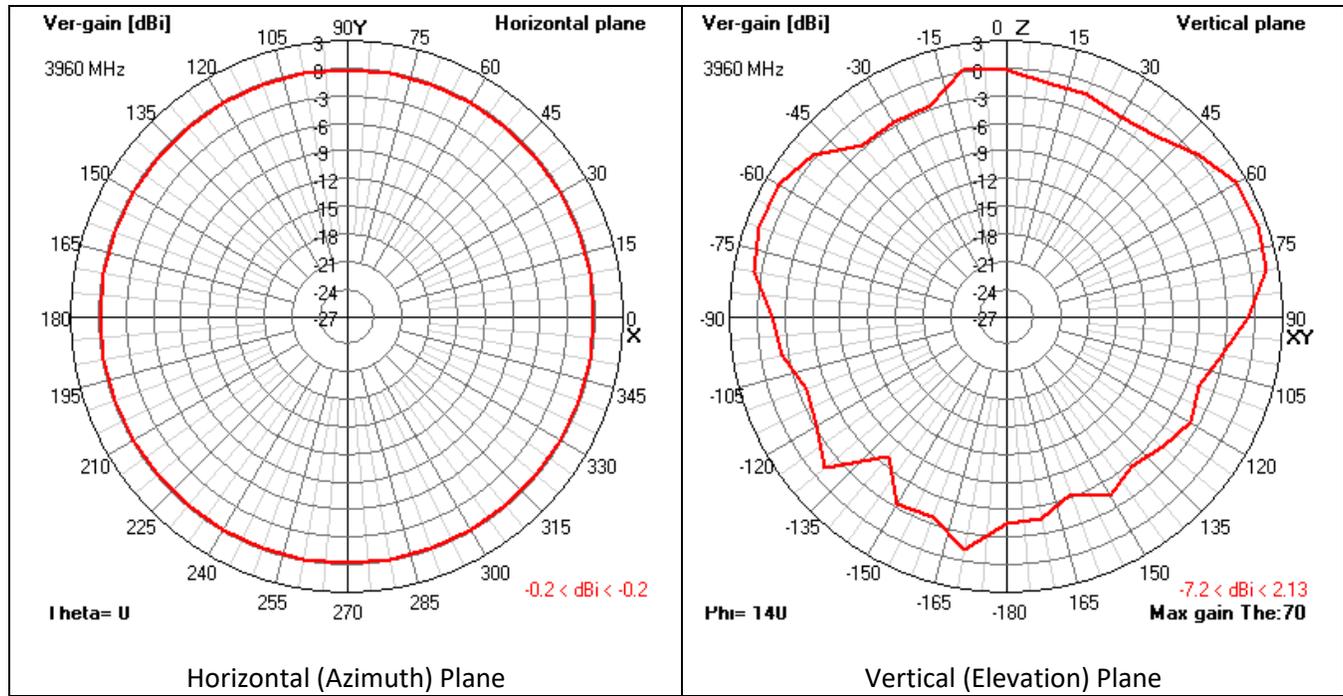
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Radiation Patterns

3960 MHz



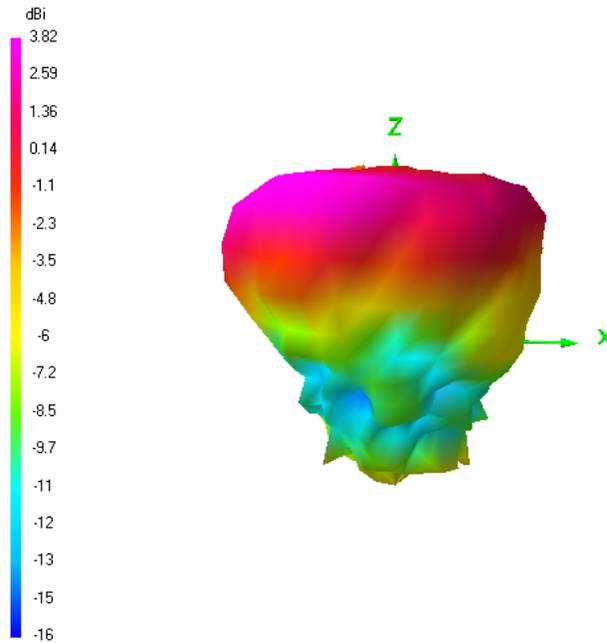
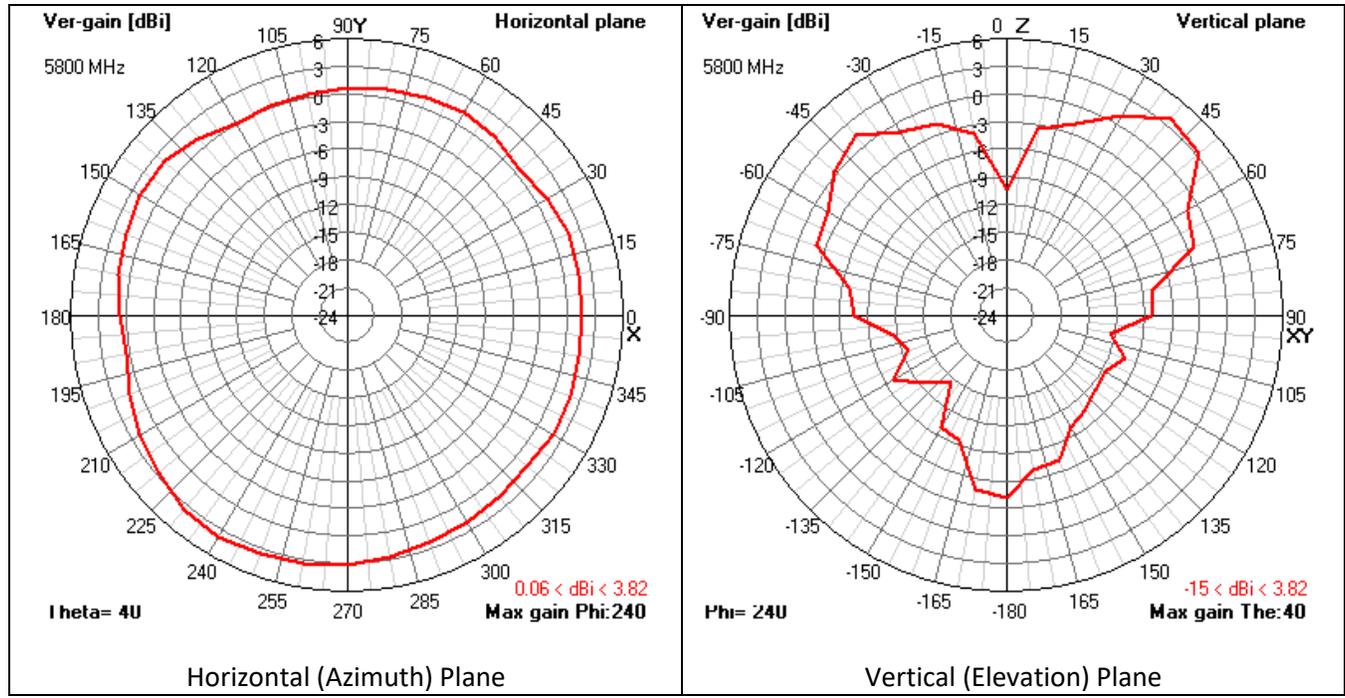
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Radiation Patterns

5800 MHz



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- Position away from:
 - CRT/TVs
 - Lighting fixtures & motors
 - Other antennas & wireless devices
 - Low-E or tinted/coated windows
 - Large vertical metal or concrete objects
- Drill a 7/8" (20mm) hole in flat horizontal metal surface
- Remove mounting nut and feed coax cable through hole
- Press antenna into hole and tighten nut & washer from underneath
- Optionally apply a thin bead of silicone caulk around the antenna rim
- Keep coax lead cable as short as possible & weatherproof all outdoor connectors

Contact Information

For the latest specifications, additional product information, worldwide sales and information about Proxicast:

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Email: sales@proxicast.com 1-412-213-2477

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Email: support@proxicast.com

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