

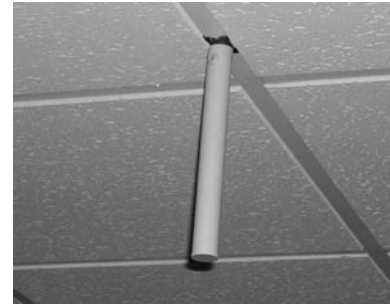
2.4-2.485 GHz ISM Ceiling Mount Omnidirectional Antenna

The MAXRAD MCO24005PT is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 1.5:1. Its broad elevation plane radiation pattern has been shaped to direct energy where it is needed,

while suppressing the misdirected upper and lower sidelobe energy. The result is excellent coverage for a variety of in-building applications.

Features and Benefits:

- Optimized radiation pattern focuses energy where it is needed while suppressing upper and lower sidelobe energy.
- UL Plenum rated RG58 coax cable and UL94-V0 radome. Meet the strictest safety specifications.
- Includes a 1/4-20 insert that allows clipping to a ceiling tile rail clip for easy installation.
- Excellent value: superior performance at a competitive price.



MCO24005PT

General Specifications:

Radome Material:
UL94-V0 plastic

Polarization:
Vertical, linear

Wind Survival:
125 mph

Nominal Impedance:
50 Ohms

Maximum Power:
5 Watts

Mounting Method:
1/4-20 insert for clipping to a ceiling tile rail

Connector Options:

(add connector part number after the PT prefix):

Example: MCO24005PTRPC (Model MCO24005PT with reverse polarity TNC connector).

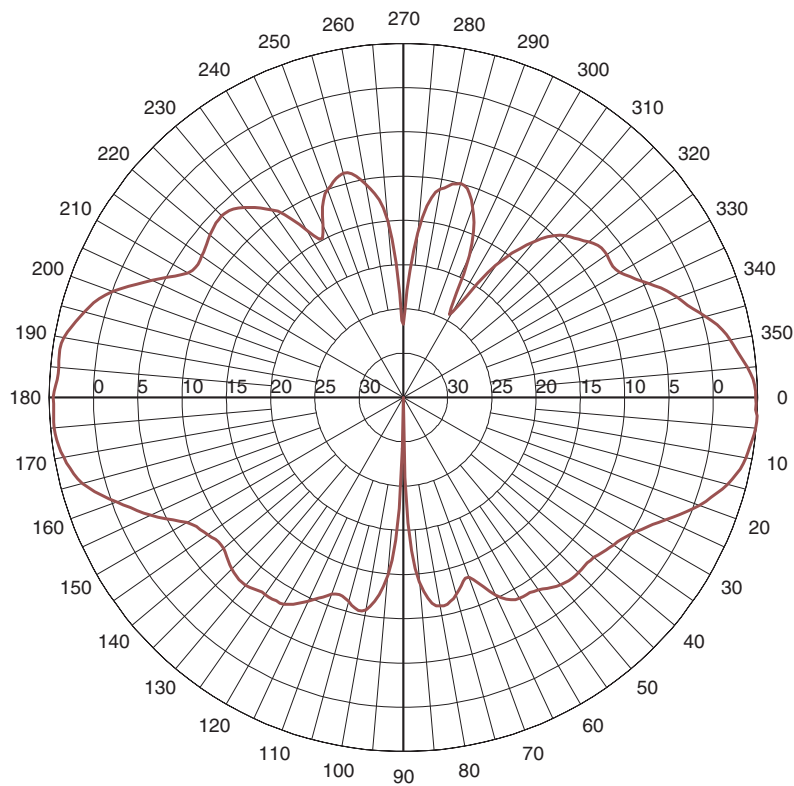
- BNC, Male (part #BN)
- N, Female (part #NF)
- N, Male (part #NM)
- Female SMA (part #FSMA)
- Male SMA (part #MSMA)
- Female SMA, reverse threaded (part #FSMART)
- Male SMA, reverse threaded (part #MSMART)
- Reverse Polarity TNC Plug (part #MRPC)
- TNC, Male (part #C)
- Mini-UHF, Male (part #PL)
- Female FME (part #FFME)

Electrical Specifications

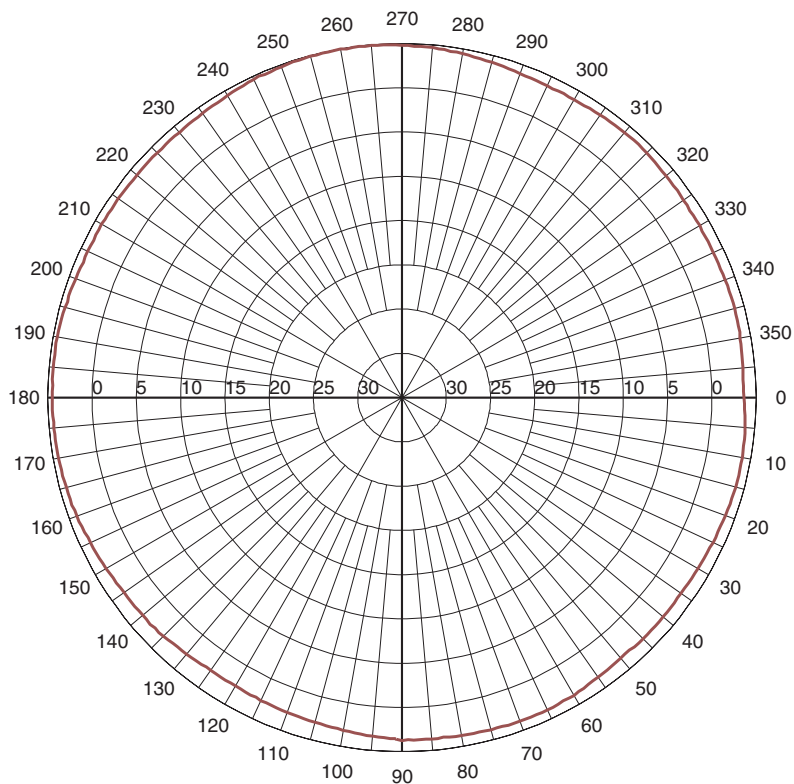
Model #	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth	Connector	VSWR
MCO24005PT	2400-2485 MHz	5.5 dBi	360°	32°	Various options	< 1.5:1
MCO24005PT36	2400-2485 MHz	5.2 dBi	360°	32°	Various options	< 1.5:1

Mechanical Specifications

Model #	Temperature Range	Dimensions	Weight	Cable (Plenum Rated)
MCO24005PT	-30°C to 75°C	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	12" (30.5 cm) RG58
MCO24005PT36	-30°C to 75°C	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	36" (91.5 cm) RG58



MCO24005PT Elevation Cut



MCO24005PT Azimuth Cut

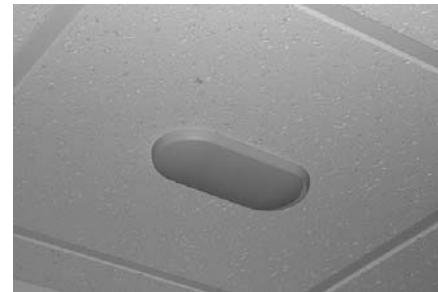
2.4 GHz ISM Ceiling Mount Omnidirectional Diversity Antenna

The MCD2400PT combines two flat ceiling mount omnidirectional antennas in a single housing for efficient spatial diversity installations. This antenna is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 1.5:1 and an isolation between two

elements of more than 20 dB. A dual stud drop ceiling mount makes for effortless installation. The antenna includes pigtails that can be terminated with various types of connectors.

Features and Benefits:

- Efficient omnidirectional diversity performance. Provides the excellent performance of two MAXRAD omnidirectional antennas in a single low profile housing.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets the strictest safety specifications.
- Dual stud drop ceiling mount. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Includes side cable exit adapter for solid ceiling mounting.



MCD2400PT

General Specifications:

Polarization:
Vertical, linear

Nominal Impedance:
50 Ohms

Radome Housing:
UL listed plastic

Mounting Method:
Dual stud mount.
Above ceiling tile mounting bracket is available for applications requiring no visibility of the antenna.
Side cable exit adapter for solid ceiling mounting.

Connector Options:

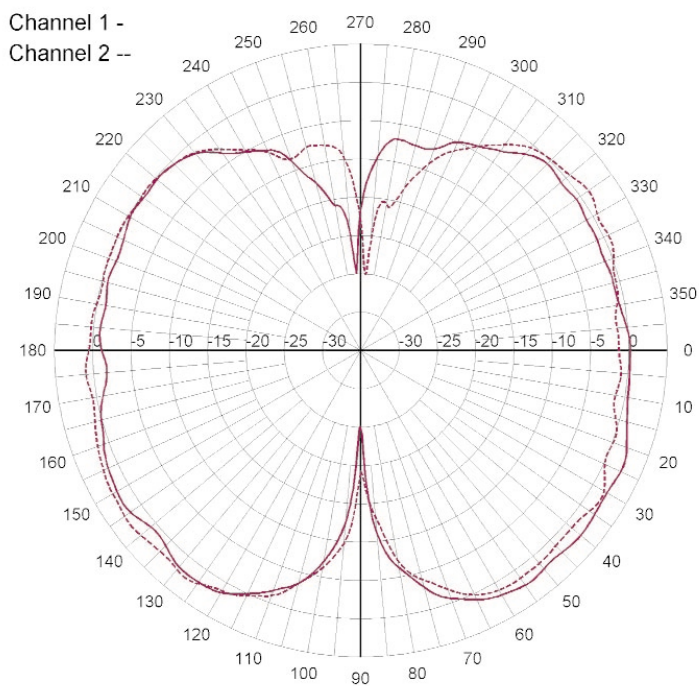
(add connector part number after the PT prefix):
Example: MCD2400PTNF (model MCD2400PT with N, female connector).
N female (part #NF)
Reverse Polarity TNC (part #RPTNC)
Reverse Polarity BNC (part #RPBN)
TNC (part #C)

Electrical Specifications

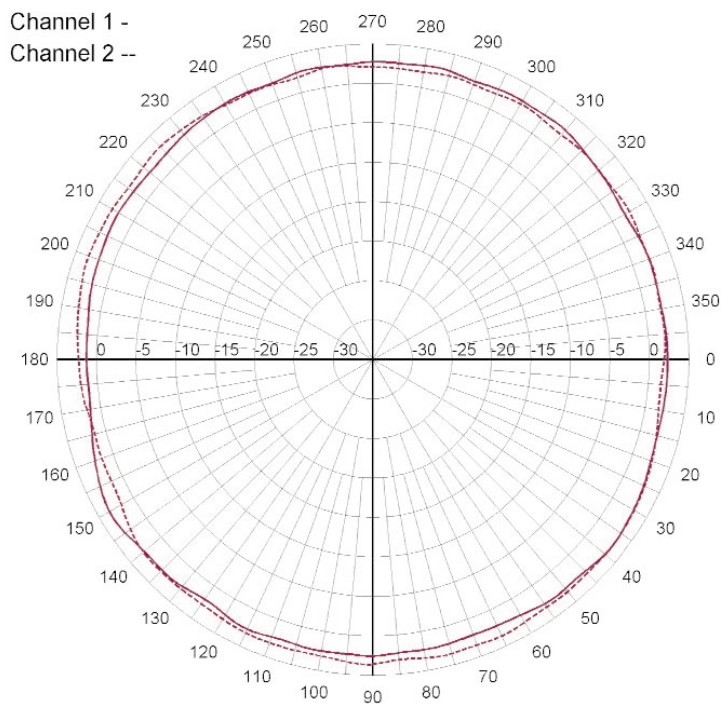
Model #	Frequency Range	Nominal Gain	Isolation	Horizontal Beamwidth	Vertical Beamwidth	VSWR	Maximum Power Input	Connector
MCD2400PT	2400-2485 MHz	2.5 dBi	> 20 dB	360°	40°	< 1.5:1	50 Watts	Various options
MCD2400PT36	2400-2485 MHz	2.2 dBi	> 20 dB	360°	40°	< 1.5:1	50 Watts	Various options

Mechanical Specifications

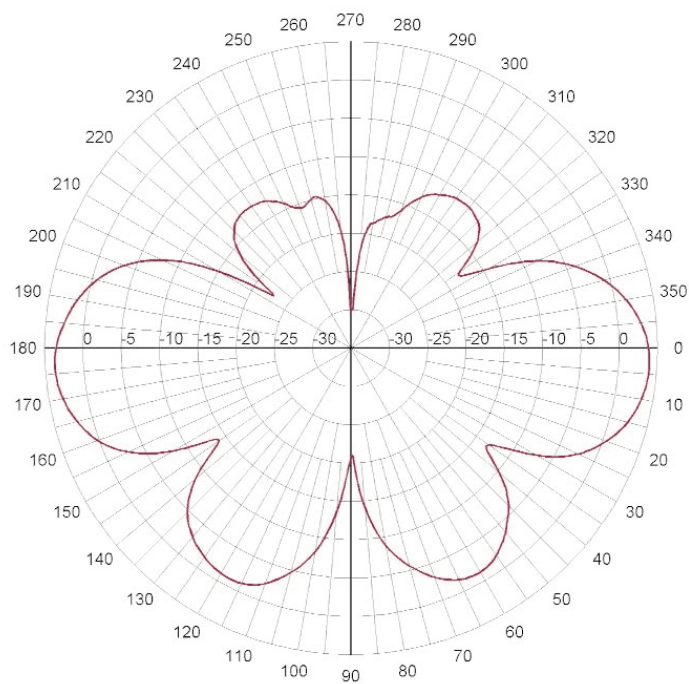
Model #	Temperature Range	Dimensions	Weight	Cable
MCD2400PT	-40° C to +80° C	4.25" W x 8.5" L x 0.5" H 10.8 x 21.59 x 1.27 cm	1 lb (0.45 kg)	Dual 12" (30.5 cm) Plenum RG58/U CL2P
MCD2400PT36	-40° C to +80° C	4.25" W x 8.5" L x 0.5" H 10.8 x 21.59 x 1.27 cm	1 lb (0.45 kg)	Dual 36" (91.4 cm) Plenum RG58/U CL2P



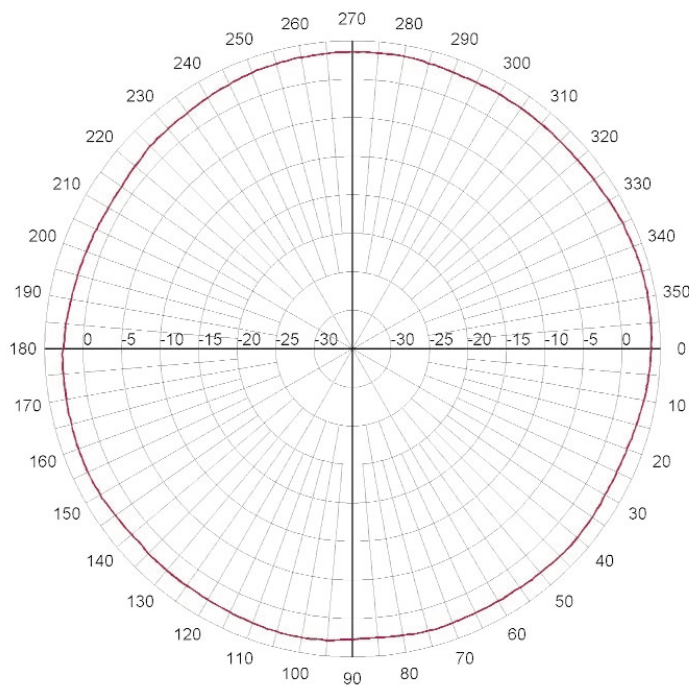
MCD24000PT Elevation Cut



MCD24000PT Azimuth Cut



MFB24004CM Elevation Cut



MFB24004CM Azimuth Cut

2.4 GHz ISM Omnidirectional Fiberglass Antenna

The MFB24004CM omnidirectional fiberglass antenna covers 2.4 GHz frequency bands with a VSWR of less than 1.5:1. It provides 4 dBi gain and features a built-

in matching network that eliminates the need for a ground plane. This antenna is ceiling mounted with the MMK11 mount.

Features and Benefits:

- U.V. stabilized, pultruded fiberglass radome. Antenna can be utilized in harsh indoor environments, providing years of trouble-free service.
- Ceiling tile mounting bracket included for easy installation.

General Specifications:

Radome Material:

5/8 inch diameter pultruded UV-stable fiberglass

Polarization:

Vertical

Wind Survival:

125 mph

Mounting Base Diameter:

1-1/4 inches

Maximum Power:

25 Watts

Nominal Impedance:

50 ohms

Mounting Method (included):

White powder coated ceiling mount bracket (part #MMK11) is included



MFB24004CM

Electrical Specifications

Model #	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power	VSWR	Connector
MFB24004CM	2400-2483 MHz	4 dBi	100 MHz	30°	< 1.5:1	N, female

Mechanical Specifications

Model #	Equivalent Flat Plate Area	Height	Weight
MFB24004CM	0.04 ft ²	10" (25.4 cm)	0.34 lbs (0.15 kg)

2.4 GHz ISM Ceiling Mount Bi-directional Antenna

The MHA2400PT is a vertically polarized, bi-directional indoor antenna designed to provide extended WLAN coverage with minimum visibility. This small antenna measures less than 0.45 inch thick by 3 inches wide by 2.5 inches tall and weighs

2.6 ounces. It provides effective coverage of frequencies from 2300-2500 MHz with 4 dBi gain performance. Its discrete, bi-directional design makes it ideal for use in long corridors.

Features and Benefits:

- Point-to-point, bi-directional design. Provides extended wireless coverage in two directions. Ideal for use in long corridors where more focused radiated energy is necessary to achieve adequate signal coverage.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets the strictest safety specifications.
- Single hole stud mount or optional side cable exit option. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Excellent value: superior performance at very competitive prices.

General Specifications:

Radome Material:
UL94-V0 plastic

Polarization:
Vertical

Mounting Method:
Mounting bracket clips to standard one inch wide suspended ceiling tile rails.
Holes are provided for mounting to flat ceiling with screws (not included).

Nominal Impedance:
50 Ohms



MHA2400PT



Ceiling Mount
Bi-directional

Connector Options:

(add connector part number after the PT prefix):

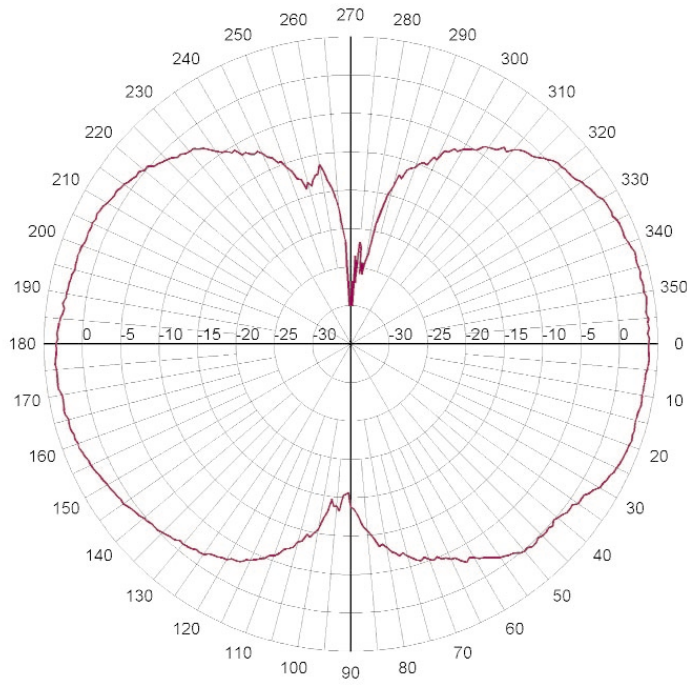
- Example: MHA2400PTBN (MHA2400PT with BNC, male connector).**
- BNC, Male (part #BN)
 - Female SMA (part #FSMA)
 - Male SMA (part #MSMA)
 - Female SMA, reverse threaded (part #FSMART)
 - Male SMA, reverse threaded (part #MSMART)
 - TNC, Male (part #C)
 - Female FME (part #FFME)

Electrical Specifications

Model #	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	VSWR	Maximum Power Input
MHA2400PT	2300-2500 MHz	4 dBi	100°	75°	< 2:1	10 Watts

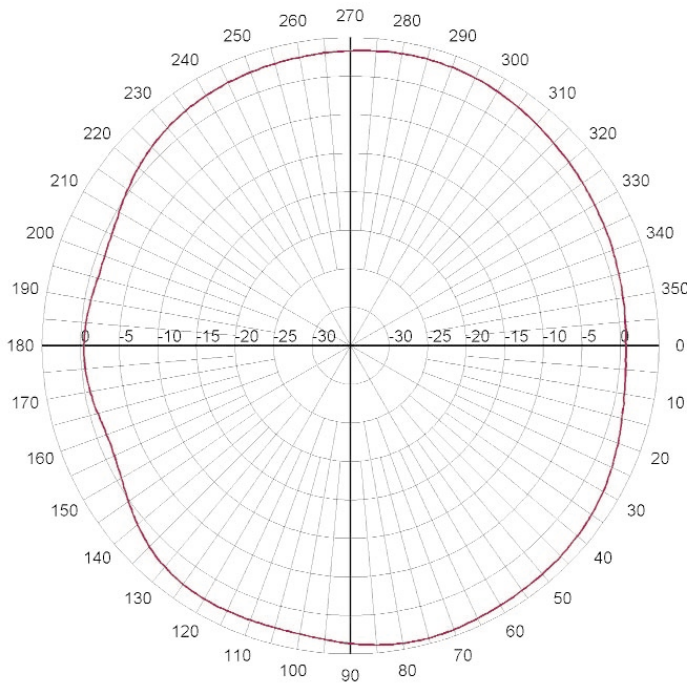
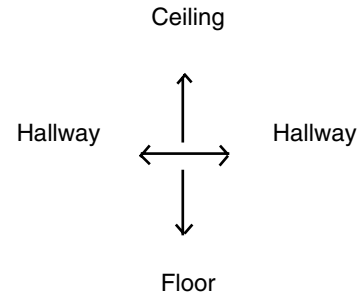
Mechanical Specifications

Model #	Temperature Range	Dimensions	Weight	Cable
MHA2400PT	-40°C to +71°C	3" W x 2.5" H x 0.45" D (7.6 x 6.35 x 1.14 cm)	2.6 oz (0.07 kg)	6" (15.2 cm) Plenum RG-58



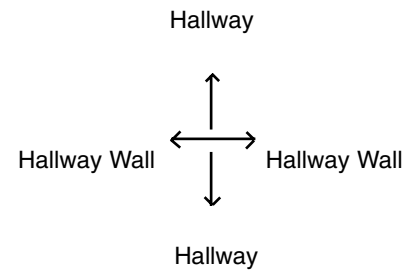
MHA2400PT Elevation Cut

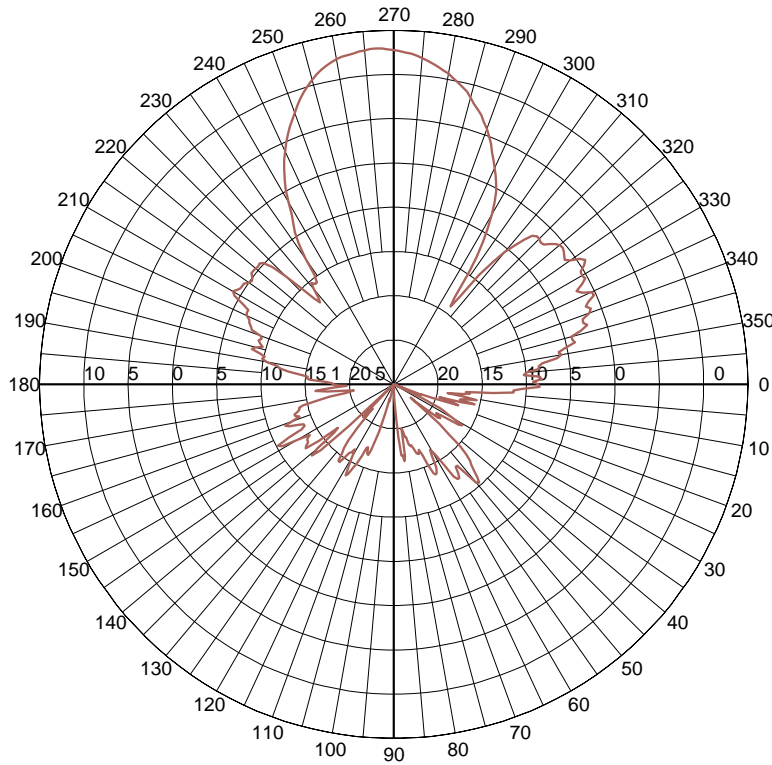
Plot Orientation



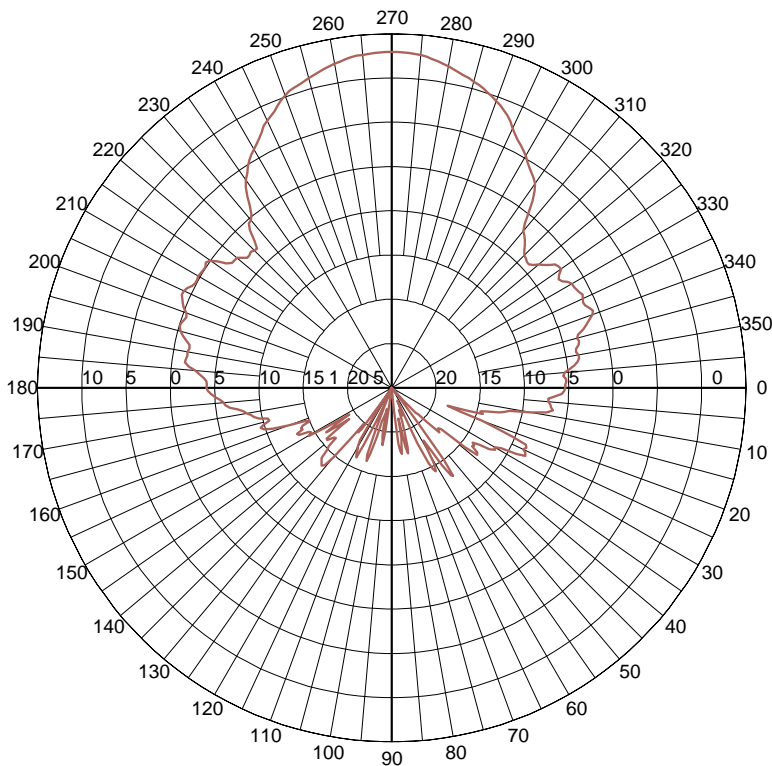
MHA2400PT Azimuth Cut

Plot Orientation

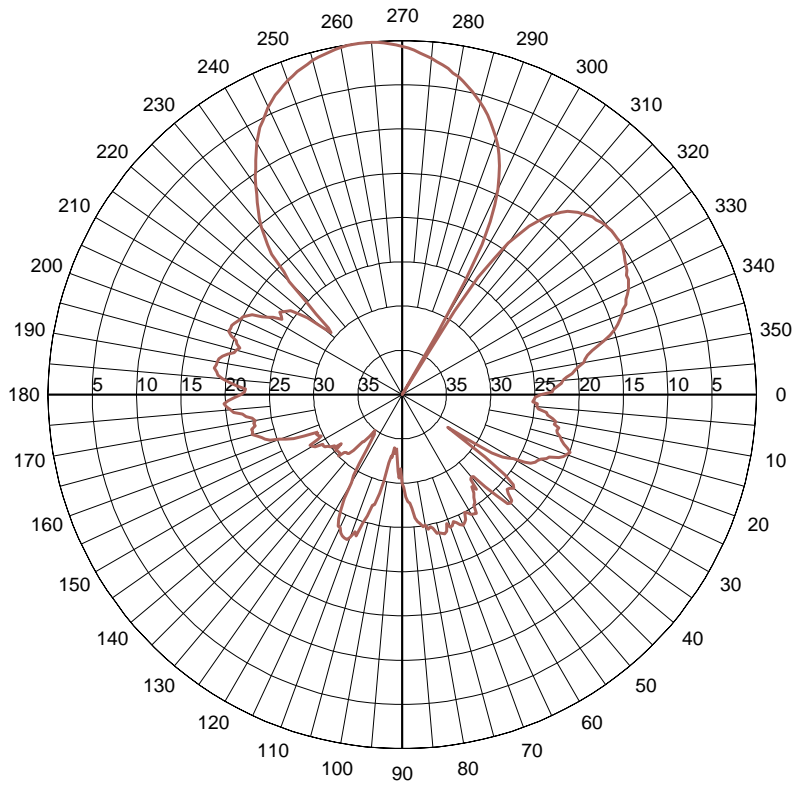




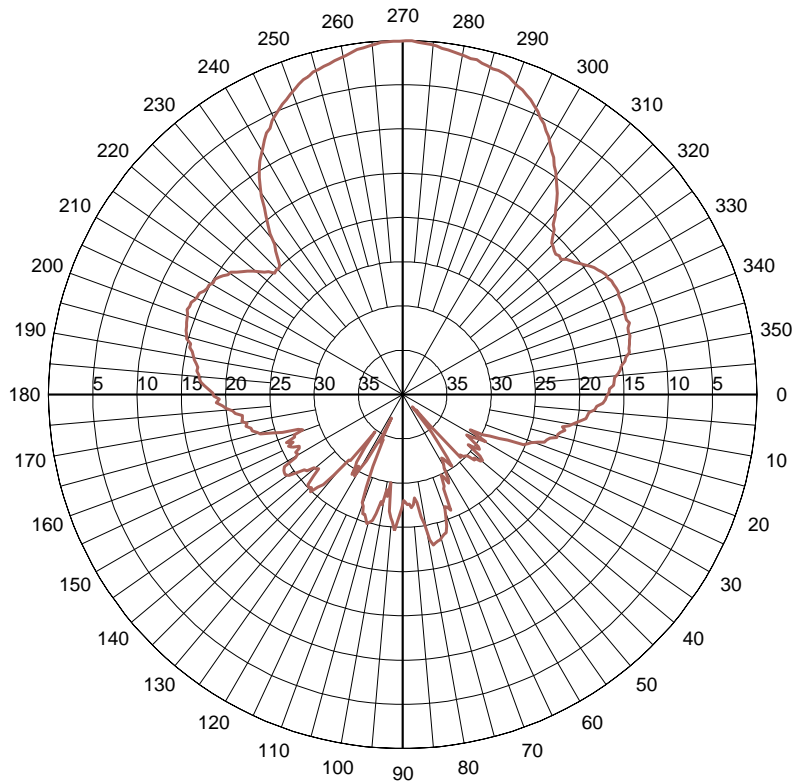
MP58013XFPT Elevation Cut



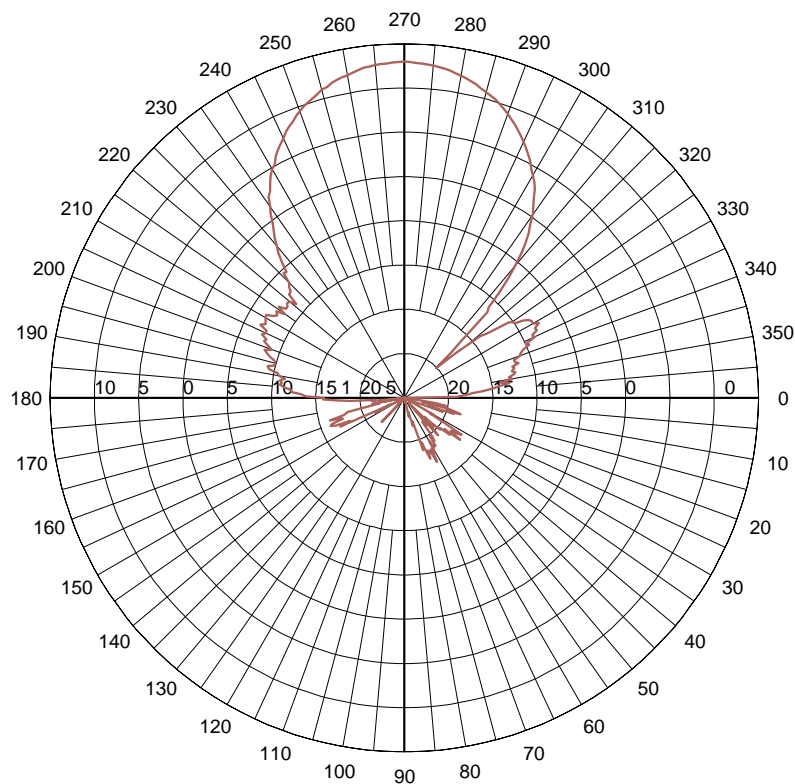
MP58013XFPT Azimuth Cut



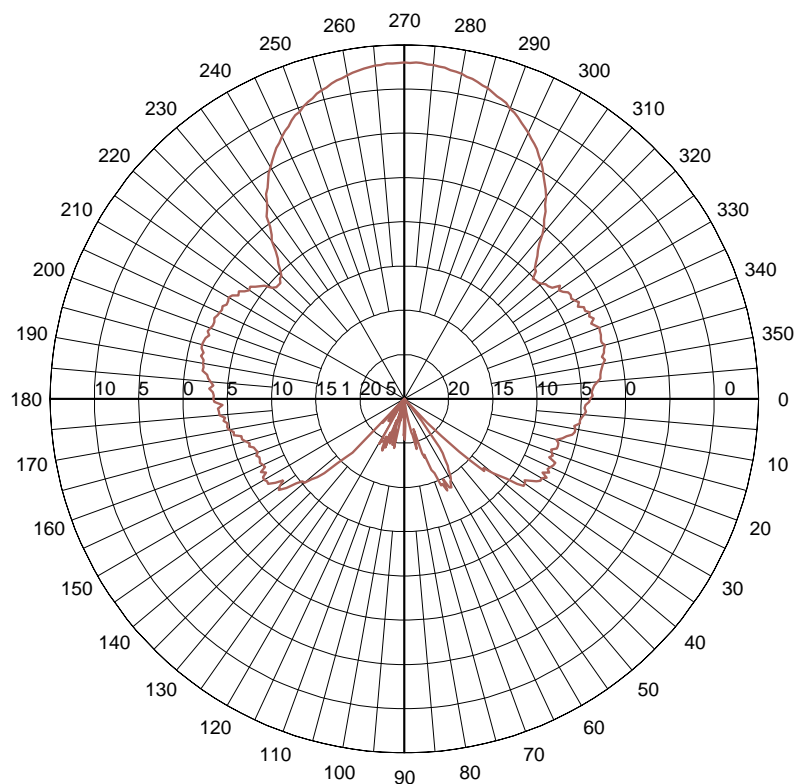
MP51513XFPT Elevation Cut



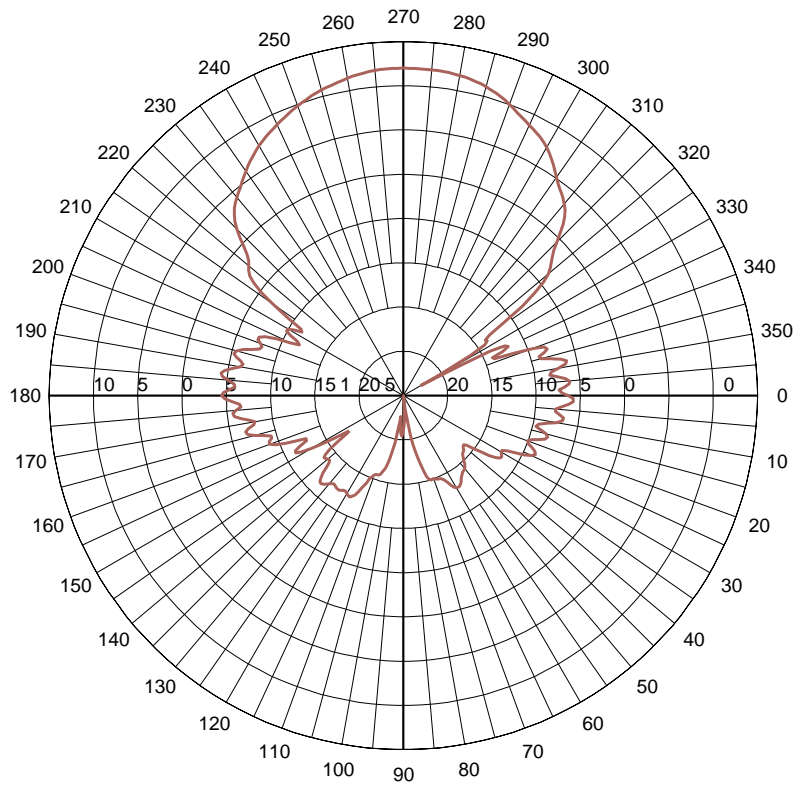
MP51513XFPT Azimuth Cut



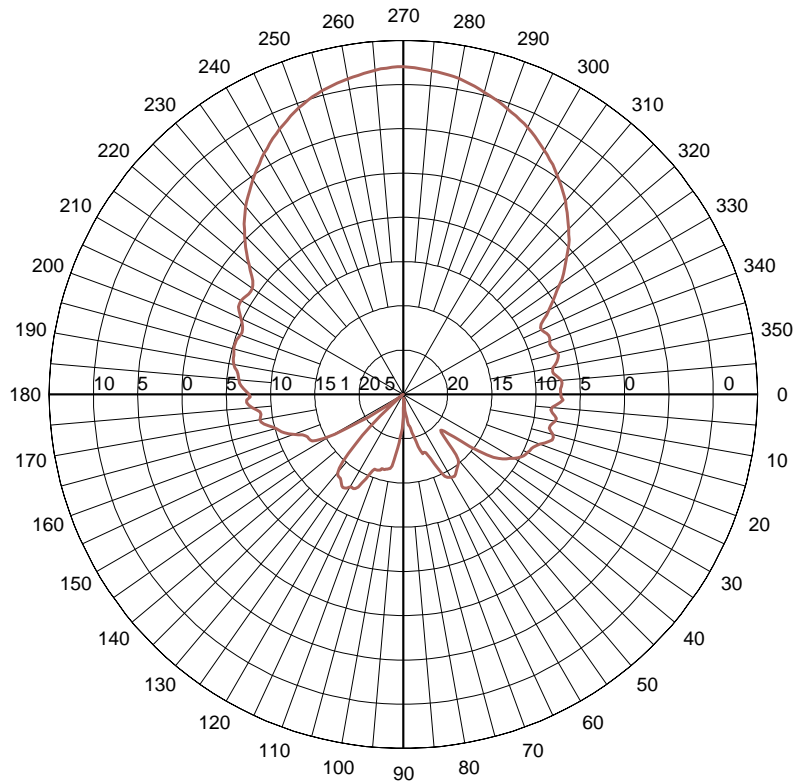
MP24013XFPT Elevation Cut



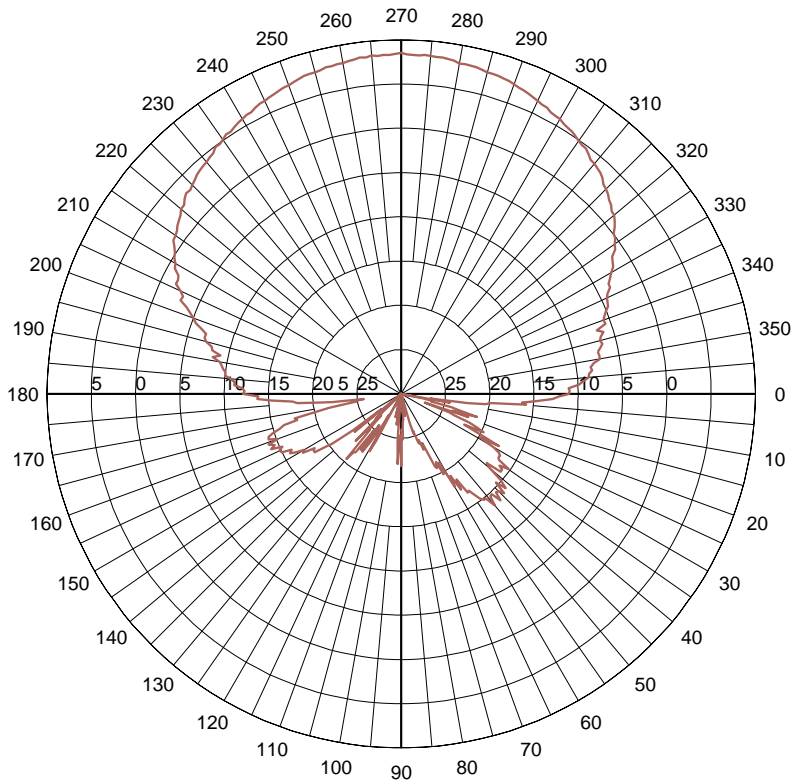
MP24013XFPT Azimuth Cut



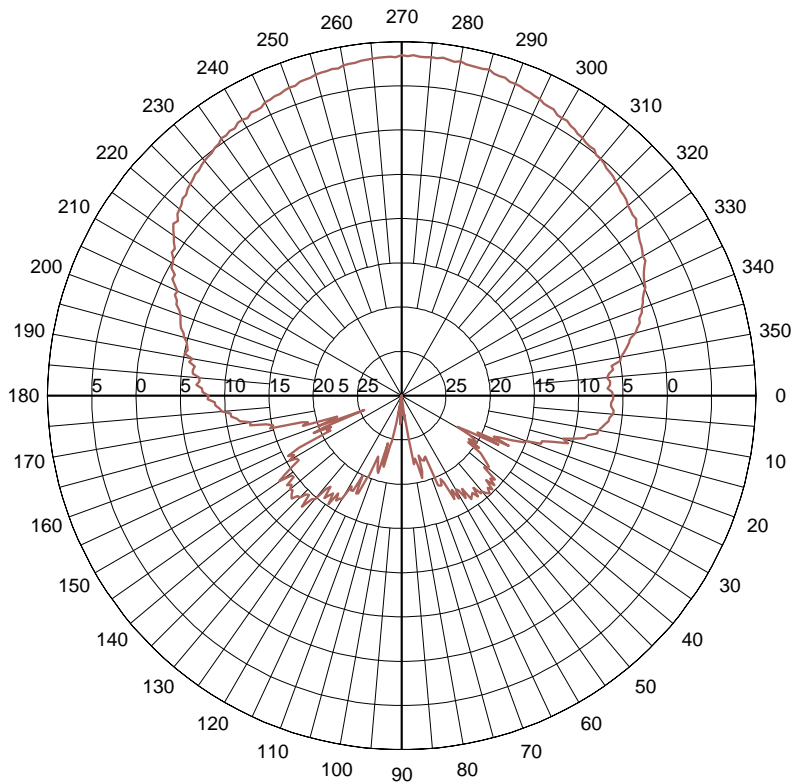
MP24012CPLXFPT Elevation Cut



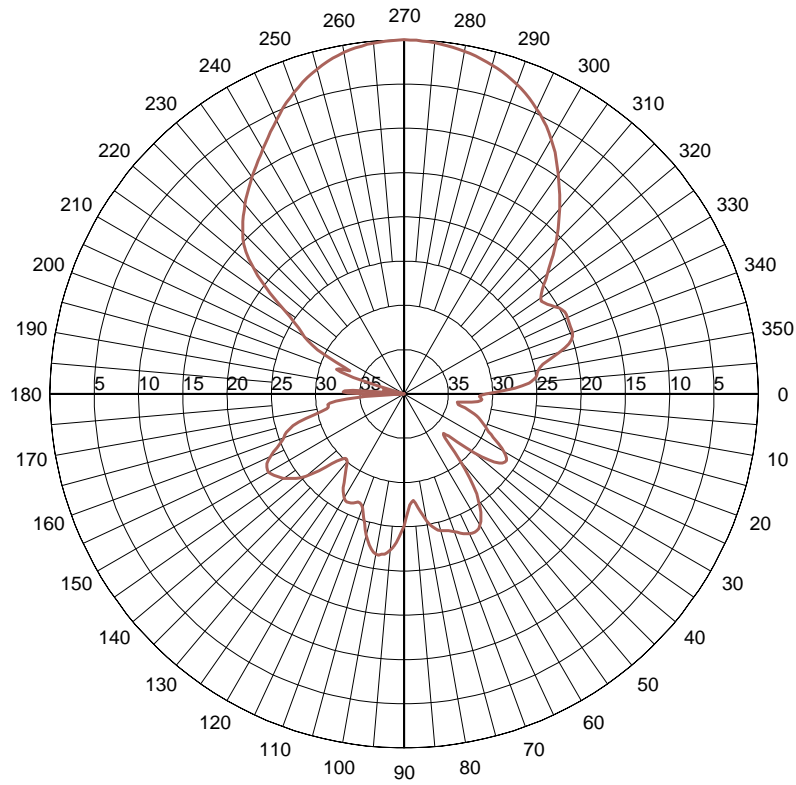
MP24012CPLXFPT Azimuth Cut



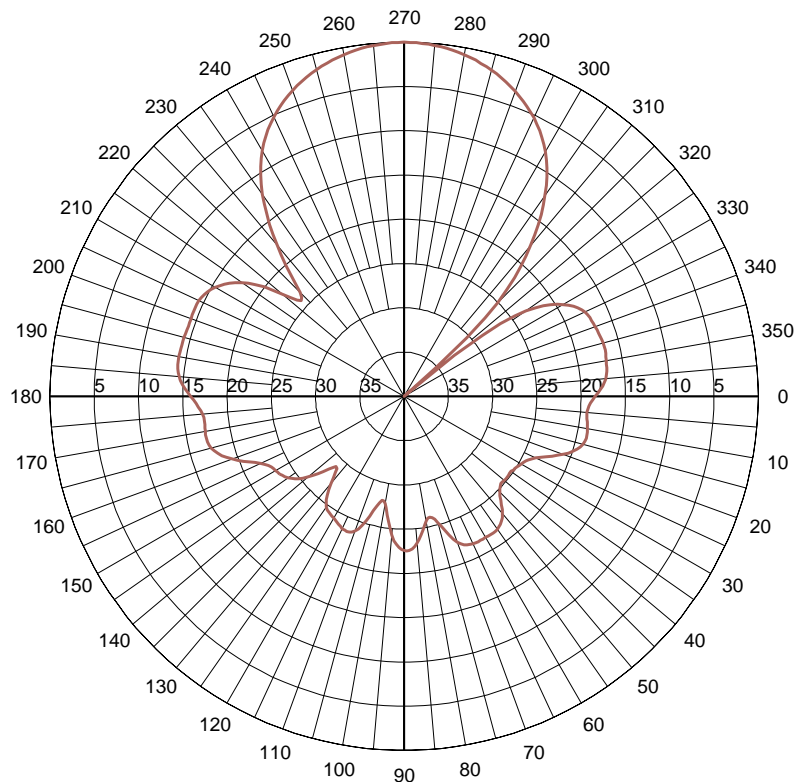
MP24008XFPT Elevation Cut



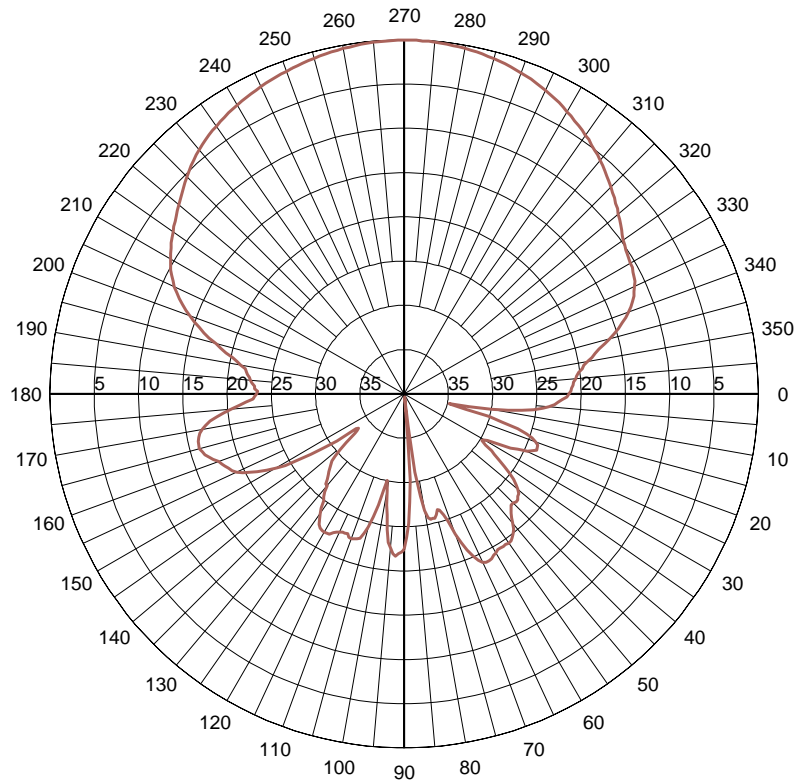
MP24008XFPT Azimuth Cut



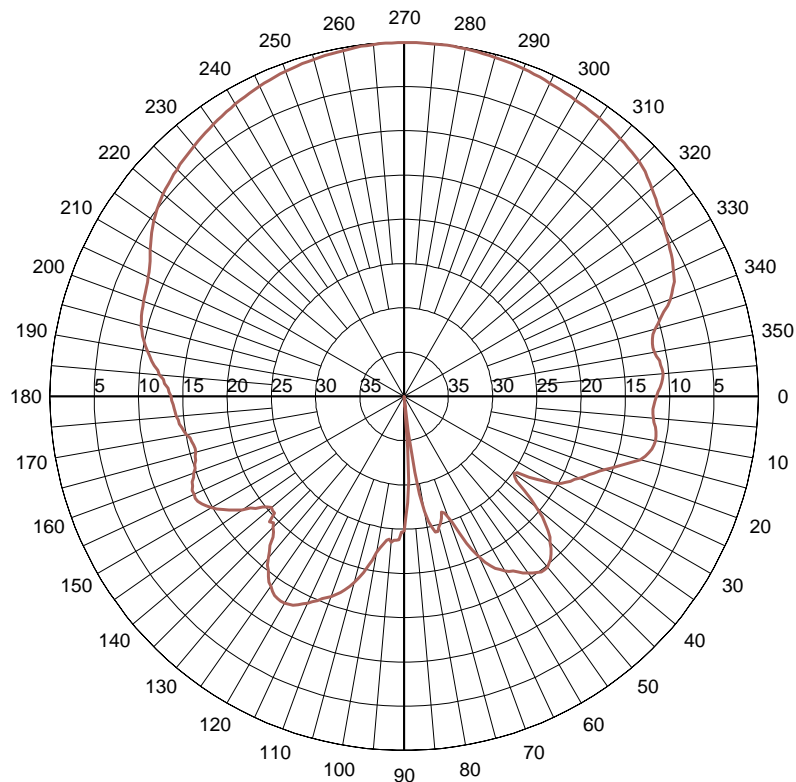
MP19013XFPT Elevation Cut



MP19013XFPT Azimuth Cut



MP19008XFPT Elevation Cut



MP19008XFPT Azimuth Cut

XtremeWave™ Directional Panel Antennas

The MAXRAD XtremeWave™ directional panel antennas are designed to cover 2.4 GHz, 5.8 GHz ISM and PCS frequencies with a VSWR of less than 1.5:1, obtaining

maximum gain with an attractive, low-profile package. All models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

Features and Benefits:

- Patented PCB design. Provides best performance-to-price ratio.
- Utilizes UL94-V0 plastic and PC board. Provides UL's highest flame retardant rating allowing maximum placement flexibility. Meets the most stringent building codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG58 pigtail design. Permits the panel to be mounted in vertical or horizontal polarity with a wide variety of connector options.
- Optional UL910 rated Plenum cable. Allows the cable to be installed in the strictest indoor mounting locations, including air ducts.
- Adjustable mounting brackets for indoor installation are included. Indoor corner mounting bracket and heavy duty outdoor mounting brackets are also available. These provide maximum flexibility for indoor or outdoor installations.



MP24008XFPT



MP24012CPLXFPT
on MPAB12
Corner Mount



MP58013XFPT on
MPAB11 Mount

General Specifications:

Radome Material:

UL94-V0 plastic

Polarization:

Vertical or horizontal, linear (except MP24012CPLXFPT)

Left hand circular (Model MP24012CPLXFPT)

Lightning Protection:

DC grounded

Mounting Method:

Adjustable azimuth/elevation MPAB11 mount is included with 8 dBi panels.

Adjustable azimuth/elevation MPAB12 indoor corner mount is sold separately.

Nominal Impedance:

50 Ohms

Electrical Specifications

Model #	Frequency Range	Gain	Front-to-Back Ratio	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	VSWR	Maximum Power Input	Connector Options
MP19008XFPT	1850-1990 MHz	8.0 dBi	> 15 dB	90°	60°	< 1.5:1	20 Watts	N female (part #NF) is standard. Other connector options are available. Please consult factory for details.
MP19013XFPT	1850-1990 MHz	12.5 dBi	> 18 dB	40°	35°	< 1.5:1	20 Watts	
MP24008XFPT	2300-2500 MHz	8.5 dBi	> 15 dB	60°	60°	< 1.5:1	20 Watts	
MP24012CPLXFPT	2300-2500 MHz	12.0 dBic	> 20 dB	35°	35°	< 1.5:1	20 Watts	
MP24013XFPT	2300-2500 MHz	13.0 dBi	> 18 dB	35°	35°	< 1.5:1	20 Watts	
MP51513XFPT	5150-5350 MHz	13.0 dBi	> 23 dB	42°	27°	< 1.5:1	20 Watts	
MP58013XFPT	5725-5875 MHz	12.5 dBi	> 23 dB	42°	28°	< 1.5:1	20 Watts	

Mechanical Specifications

Model #	Temperature Range	Dimensions	Weight	Cable
MP19008XFPT	-40°C to +70°C	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	12" (30.5 cm) RG58/U*
MP19013XFPT	-40°C to +70°C	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	12" (30.5 cm) RG58/U*
MP24008XFPT	-40°C to +70°C	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	12" (30.5 cm) RG58/U*
MP24012CPLXFPT	-40°C to +70°C	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	12" (30.5 cm) RG58/U*
MP24013XFPT	-40°C to +70°C	8.8" x 8.1" x 1.6" (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	12" (30.5 cm) RG58/U*
MP51513XFPT	-40°C to +70°C	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	6" (15.25 cm) .141 semi-rigid*
MP58013XFPT	-40°C to +70°C	5.1" x 4.7" x 1.5" (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	6" (15.25 cm) .141 semi-rigid*

* UL910 rated cable optional.