Amphenol ANTENNA SOLUTIONS

24-Port Canister Antenna

(4x) 1695-2700 | (2x) 3300-4200 | (2x) 5150-5925 MHz

SECTOR / OMNI COMBINATION | 23.9 IN | FIXED TILT

4U4MTSP1X06Fxys4

Features

- Sector & omni configuration with 24 connectors
- 4x4 MIMO capable in both omni and tri-sectored configurations at 1695-2700 MHz
- Broadband networks 1695-2700 and 3300-4200 MHz
- Easily removable lifting ring
- Improvements in gain, port isolation and VSWR
- Can be ordered with an integrated GPS unit
- This antenna meets the requirements of the U-NII

PRODUCT OVERVIEW						
	Frequency Range (MHz)	(4x) 1695-2700		(2x) 3300-4200	(2x) 5150-5925	Optional GPS BAND 1575.42 ± 10
	Array	Y1 Y2 Y3 Y4 Y5 Y6	Y7 Y8	P1 P2	O1 O2	---
	Connector	12 PORTS	4 PORTS	4 PORTS	4 PORTS	1 PORT
	Polarization	XPOL	XPOL	XPOL	XPOL	RIGHT HAND CIRCULAR
	Azimuth Beamwidth (avg)	SECTORIZED	OMNI	OMNI	OMNI	---
	Electrical Downtilt	2°, 4°, 6°		0°	0°	---
	Configuration	SECTOR & OMNI COMBINATION				---
	Maximum Continuous Power Per Port @ 50° C (122° F)	300 WATTS	300 WATTS	100 WATTS	50 WATTS	---
	Maximum Total Continuous Power at 50° C (122° F)	5400 WATTS				---
	Connector Type	(24x) 4.3-10 FEMALE				(1x) N-TYPE FEMALE
	Dimensions	606 x Ø371 mm (23.9 x Ø14.6 in)				---
	Radome Color Options	GREY, BROWN or BLACK				---

ELECTRICAL SPECIFICATIONS Sectorized — Y1 Y2 Y3 Y4 Y5 Y6

Frequency Range		MHz	(4x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(4x) ±45°			
Gain	BASTA	dBi	12.8 ± 0.6	12.9 ± 0.4	13.1 ± 0.6	13.9 ± 0.8
	MAX	dBi	13.4	13.3	13.7	14.7
Azimuth Beamwidth (3 dB)		degrees	91.2° ± 9.5°	88.2° ± 7.6°	85.3° ± 7.4°	71.1° ± 11.7°
Elevation Beamwidth (3 dB)		degrees	21.3° ± 2.0°	20.1° ± 1.7°	19.3° ± 1.9°	15.3° ± 1.8°
Electrical Downtilt		degrees	(x) 2°, 4°, 6°			
Impedance		Ohms	50Ω			
VSWR		---	≤ 1.5:1			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153			
Front-to-Back Ratio		dB	> 21	> 22	> 24	> 24
Upper Sidelobe Suppression		dB	N/A	N/A	N/A	N/A
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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ELECTRICAL SPECIFICATIONS Omni

■ Y7 ■ Y8

Frequency Range		MHz	(4x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(4x) ±45°			
Gain	BASTA	dBi	9.5 ± 0.6	9.3 ± 0.5	9.1 ± 0.5	9.6 ± 0.6
	MAX	dBi	10.1	9.8	9.6	10.2
Azimuth Beamwidth (3 dB)		degrees	360°	360°	360°	360°
Elevation Beamwidth (3 dB)		degrees	21.5° ± 3.0°	20.0° ± 1.5°	19.0° ± 1.8°	15.4° ± 2.2°
Electrical Downtilt		degrees	(x) 2°, 4°, 6°			
Impedance		Ohms	50Ω			
VSWR		---	≤ 1.5:1			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153			
Upper Sidelobe Suppression		dB	N/A	N/A	N/A	N/A
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

ELECTRICAL SPECIFICATIONS

■ P1 ■ P2

Frequency Range		MHz	(2x) 3300-4200	
Frequency Sub-Range		MHz	3300-3700	3700-4200
Polarization		---	(2x) ±45°	
Gain	BASTA	dBi	6.4 ± 0.5	6.5 ± 0.8
	MAX	dBi	6.9	7.3
Azimuth Beamwidth (3 dB)		degrees	360°	360°
Elevation Beamwidth (3 dB)		degrees	29.4° ± 6.7°	23.4° ± 9.9°
Electrical Downtilt		degrees	(y) 0°	
Impedance		Ohms	50Ω	
VSWR		---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153	
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	

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ELECTRICAL SPECIFICATIONS

			■ O1 ■ O2
Frequency Range		MHz	(2x) 5150-5925
Polarization		---	(2x) ±45°
Gain	BASTA	dBi	4.9 ± 0.7
	MAX	dBi	5.6
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	19.8° ± 2.2°
Electrical Downtilt		degrees	(y) 0°
Impedance		Ohms	50Ω
VSWR		---	≤ 1.5:1
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	N/A
Upper Sidelobe Suppression		dB	> 13
Isolation	Intraband	dB	> 25
	Interband	dB	> 28
U-NII Compliant		---	Yes

INTEGRATED GPS UNIT OPTIONAL

Frequency Range	1575.42 MHz ± 10 MHz
Polarization	Right Hand Circular
Nominal Gain	3 dBic at 90°; -2 dBic at 20°
Current Draw	22 mA @ 5V
Out-of-Band Rejection	> 55 dB at 1559 MHz; > 60 dB at 1625 MHz
Amplifier Gain	28 dB ± 3 dB
Nominal Impedance	50 ohm
Noise Figure	3.9 dB
DC Voltage	2.7-5.5 VDC
VSWR	< 2.0:1
Connector	N-Type Female

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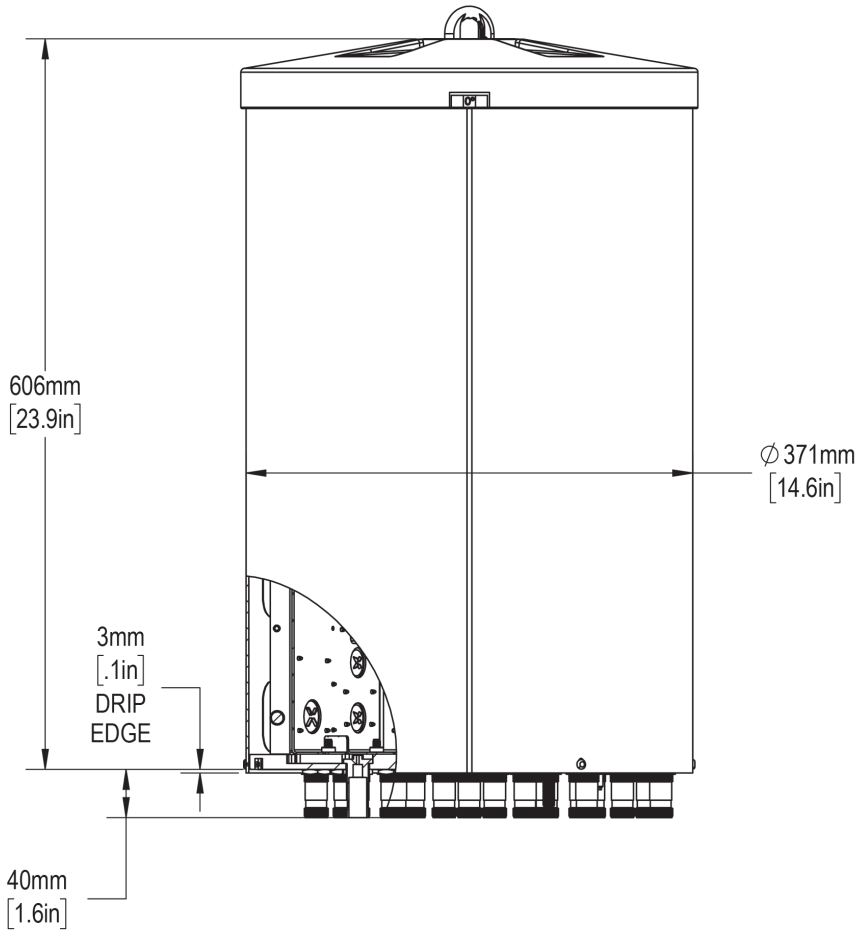
MECHANICAL SPECIFICATIONS

Antenna	Height		mm (in)	606 (23.9)
	Diameter		mm (in)	371 (14.6)
Net Weight - Antenna Only			kg (lbs)	13.2 (29.0)
Windload		Calculation	km/h (mph)	160 (100)
		Frontal	N (lbf)	191 (43)
Survival Wind Speed			km/h (mph)	241 (150)
Wind Area			m^2 (ft^2)	0.22 (2.4)
Volume			m^3 (ft^3)	0.07 (2.3)
Connector		Type	---	(24x) 4.3-10 Female; (1x) N-Type Female for optional GPS Unit
		Position	---	Bottom
Radome Color			---	Grey (Pantone 420 C), Brown (Pantone 476 C), Black (RAL 9011)
Lightning Protection (Grounding Type)			---	Direct Ground



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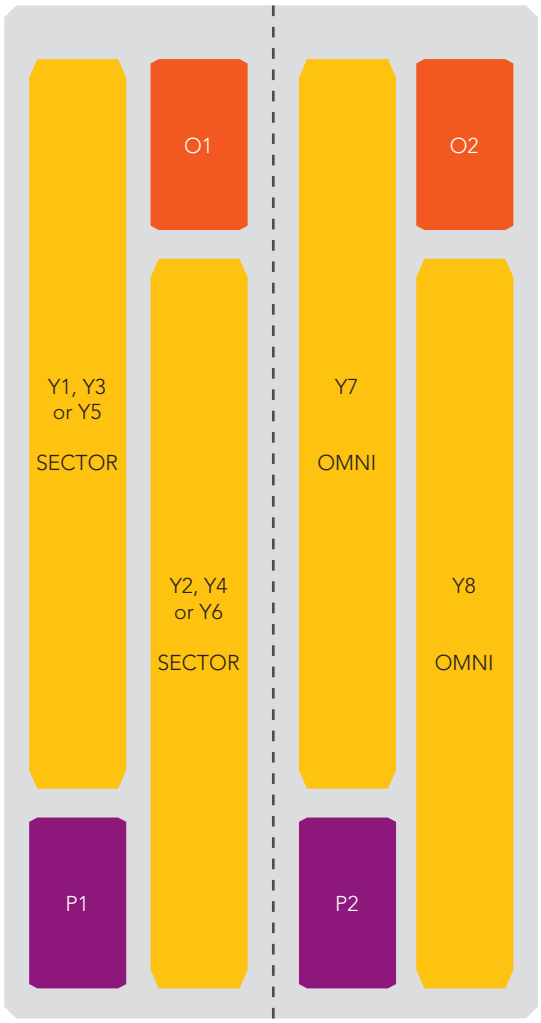
ARRAY LAYOUT Topology

FREQUENCY	ARRAY	CONNECTOR	CONNECTOR TYPE
1695-2700 MHz	Y1	1-2	(2x) 4.3-10 Female
1695-2700 MHz	Y2	3-4	(2x) 4.3-10 Female
1695-2700 MHz	Y3	5-6	(2x) 4.3-10 Female
1695-2700 MHz	Y4	7-8	(2x) 4.3-10 Female
1695-2700 MHz	Y5	9-10	(2x) 4.3-10 Female
1695-2700 MHz	Y6	11-12	(2x) 4.3-10 Female
1695-2700 MHz	Y7	13-14	(2x) 4.3-10 Female
1695-2700 MHz	Y8	15-16	(2x) 4.3-10 Female
3300-4200 MHz	P1	17-18	(2x) 4.3-10 Female
3300-4200 MHz	P2	19-20	(2x) 4.3-10 Female
5150-5925 MHz	O1	21-22	(2x) 4.3-10 Female
5150-5925 MHz	O2	23-24	(2x) 4.3-10 Female



The illustration is not shown to scale.

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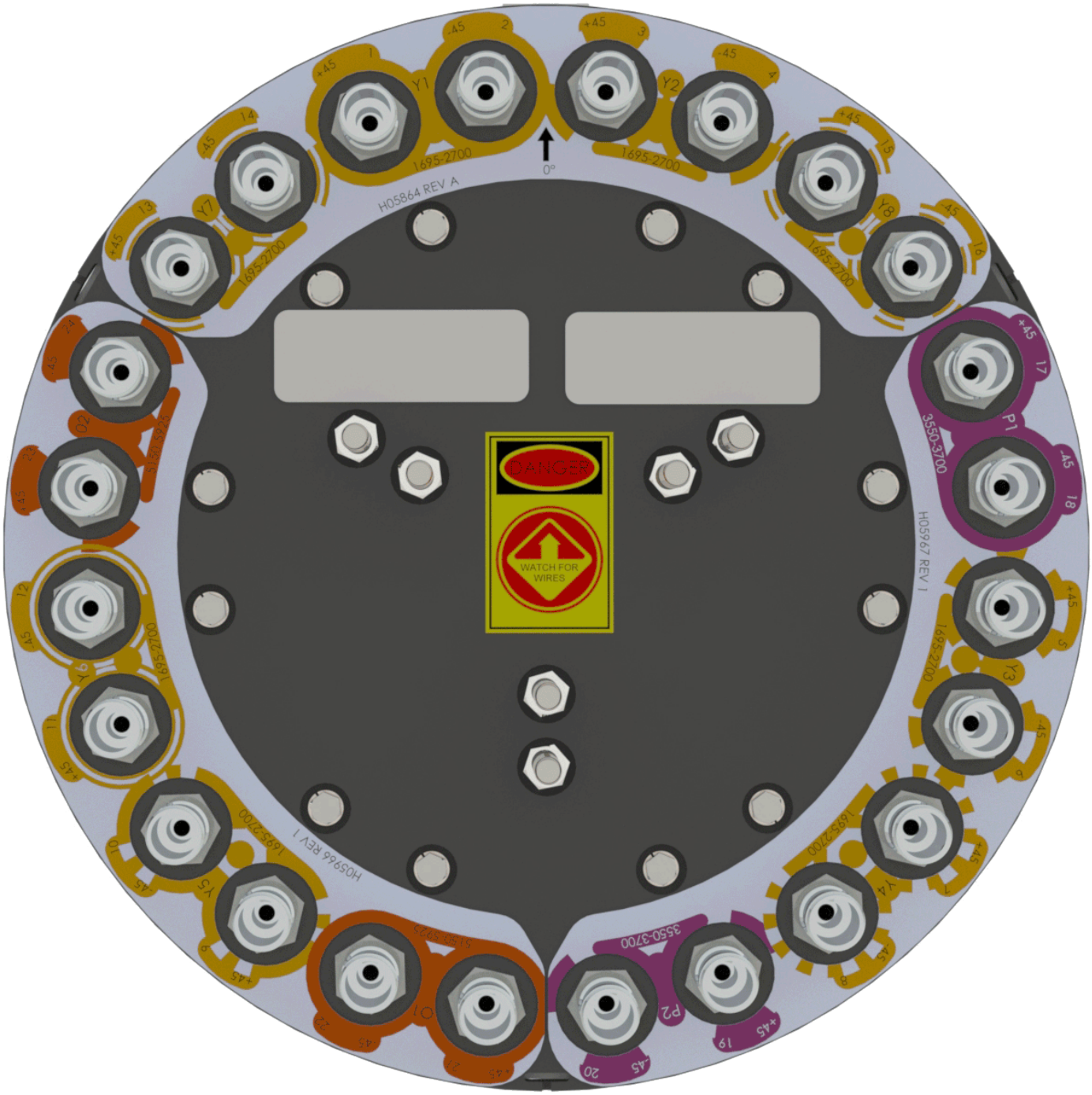
BOTTOM VIEW - LABELING



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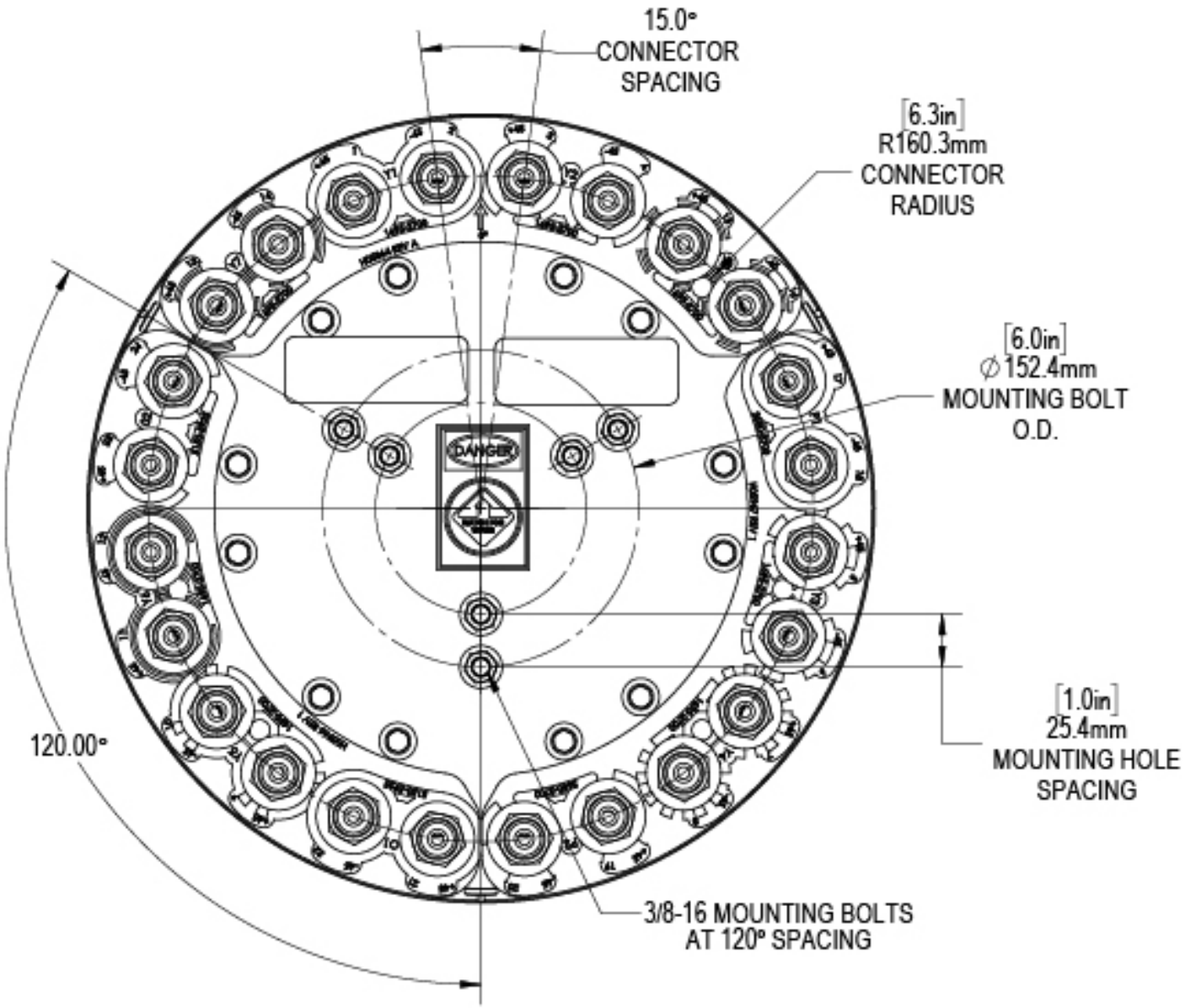
BOTTOM VIEW - CONNECTOR DIAGRAM



INSTALLATION Please read all installation notes before installing this product.

⚠	Always attach the antenna using all mounting points.
	Do not install the antenna with the connectors facing upwards.

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MOUNTING KITS Select from the following mounting options when ordering. Mounting kits for canister antennas are ordered as a separate line item.

MODEL NUMBER		DESCRIPTION
CWT-MKS-SIDE		SIDE MOUNTING BRACKET KIT FOR CANISTER ANTENNA
CWT-MKS-TOP		TOP MOUNTING BRACKET KIT FOR CANISTER ANTENNA
WB3X-MKS-01		UTILITY POLE MOUNTING BRACKET KIT FOR CANISTER ANTENNA
CWT-MKS-BASE-xx		WIDE DIAMETER POLE TOP MOUNTING BRACKET KIT FOR CANISTER ANTENNA. AVAILABLE IN BROWN, BLACK AND GREY TO MATCH ANTENNA RADOME AND/OR MOUNTING STRUCTURE.

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HOW TO READ THE MODEL NUMBER Each letter and number has meaning.

NUMBER OF BANDS and OPERATING FREQUENCY			PATTERN TYPE	AZIMUTH BMWDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS	GPS
4U	4M		T	SP1	X	06	F	xy	s	4	BK BR	-GPS
(8x) 1695-2700	(2x) 3300-4200	(2x) 5150-5925	Tri-Sector	Sector & Omni Combination	XPOL	0.6 meters	Fixed Tilt	These letters are placeholders for fixed tilt options. Refer to Electrical Specifications for available tilt options.	4.3-10 Connector	Generation 4 enhanced mechanical package	BK indicates a Black radome. BR indicates a Brown radome. The default radome color is Grey. No letters are required for a Grey radome.	Indicates an integrated GPS unit

ORDERING OPTIONS Select from the following ordering options

SELECT RADOME COLOR	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND			SELECT ANTENNA TYPE	
	1695-2700 MHz	3300-4200 MHz	5150-5925 MHz	WITHOUT GPS UNIT	WITH GPS UNIT
Grey Pantone 420 C	2°	0°	0°	4U4MTSP1X06F20s4	4U4MTSP1X06F20s4-GPS
	4°	0°	0°	4U4MTSP1X06F40s4	4U4MTSP1X06F40s4-GPS
	6°	0°	0°	4U4MTSP1X06F60s4	4U4MTSP1X06F60s4-GPS
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4	4U4MTSP1X06FAAs4-GPS
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4	4U4MTSP1X06FBBs4-GPS
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4	4U4MTSP1X06FCCs4-GPS
Brown Pantone 476 C	2°	0°	0°	4U4MTSP1X06F20s4BR	4U4MTSP1X06F20s4BR-GPS
	4°	0°	0°	4U4MTSP1X06F40s4BR	4U4MTSP1X06F40s4BR-GPS
	6°	0°	0°	4U4MTSP1X06F60s4BR	4U4MTSP1X06F60s4BR-GPS
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4BR	4U4MTSP1X06FAAs4BR-GPS
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4BR	4U4MTSP1X06FBBs4BR-GPS
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4BR	4U4MTSP1X06FCCs4BR-GPS
Black RAL 9011	2°	0°	0°	4U4MTSP1X06F20s4BK	4U4MTSP1X06F20s4BK-GPS
	4°	0°	0°	4U4MTSP1X06F40s4BK	4U4MTSP1X06F40s4BK-GPS
	6°	0°	0°	4U4MTSP1X06F60s4BK	4U4MTSP1X06F60s4BK-GPS
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4BK	4U4MTSP1X06FAAs4BK-GPS
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4BK	4U4MTSP1X06FBBs4BK-GPS
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4BK	4U4MTSP1X06FCCs4BK-GPS

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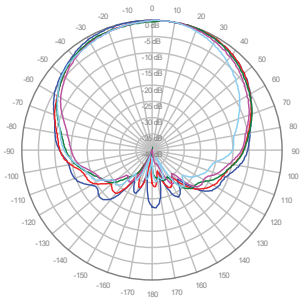
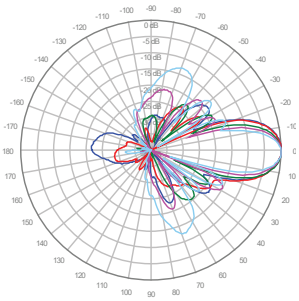
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 2° TILT

+45°

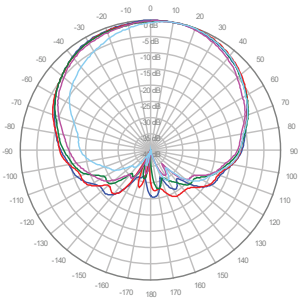


Azimuth



Elevation

-45°



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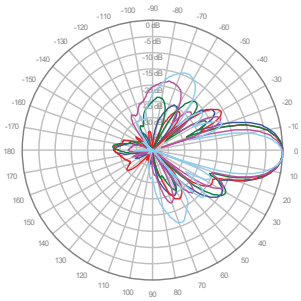
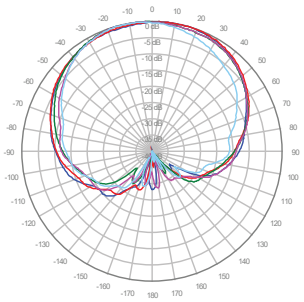


Elevation

Y2, 2° TILT

+45°



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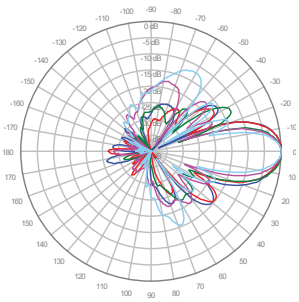
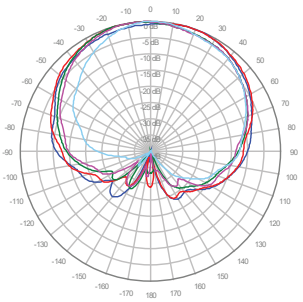


Elevation

-45°



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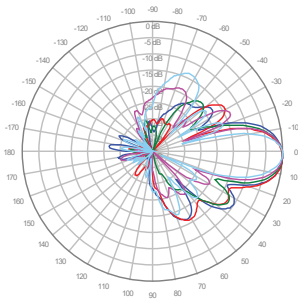
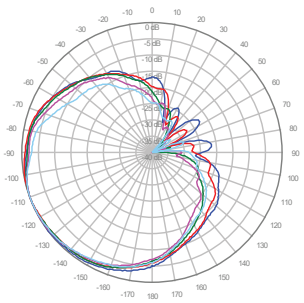


Elevation

Y3, 2° TILT

+45°



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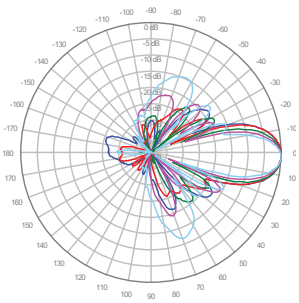
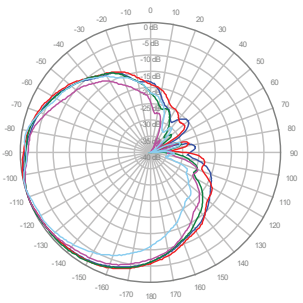


Elevation

-45°



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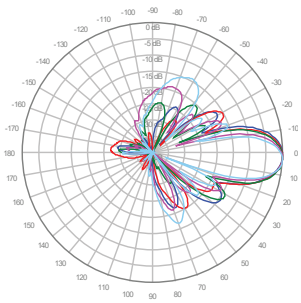
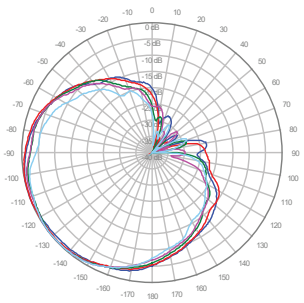


Elevation

Y4, 2° TILT

+45°



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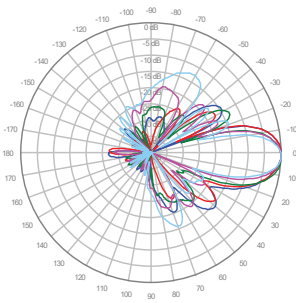
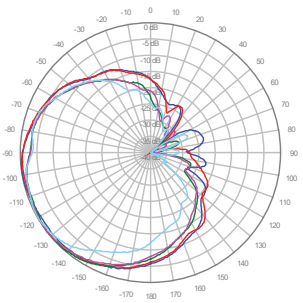


Elevation

-45°



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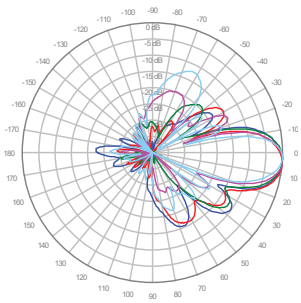


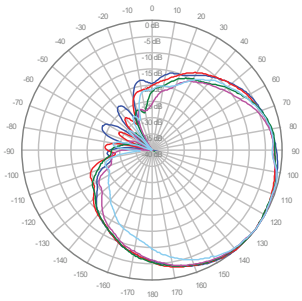
Elevation

4U4MTSP1X06Fxys4

1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 2° TILT

+45°



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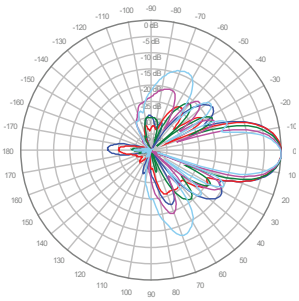
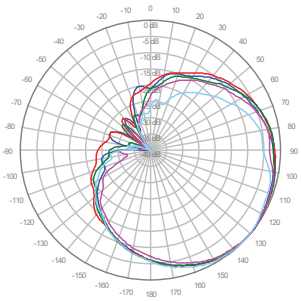


Elevation

-45°



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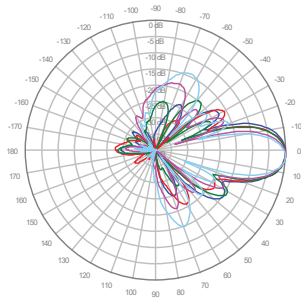
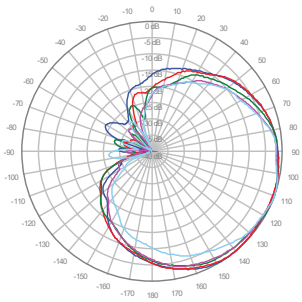


Elevation

Y6, 2° TILT

+45°



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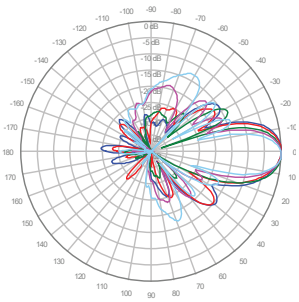
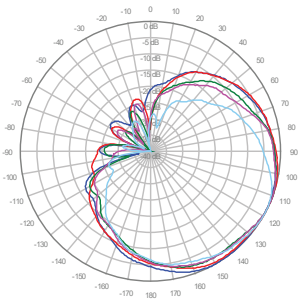
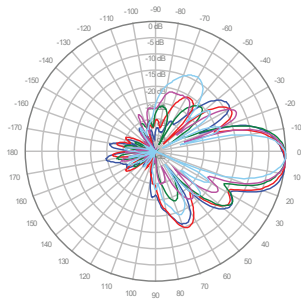


Elevation

-45°



Azimuth



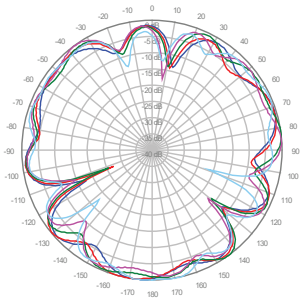
Elevation

4U4MTSP1X06Fxys4

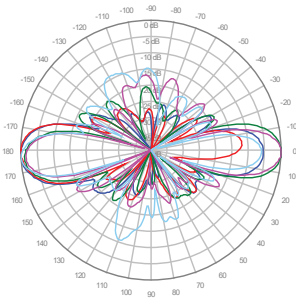
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y7, 2° TILT

+45°

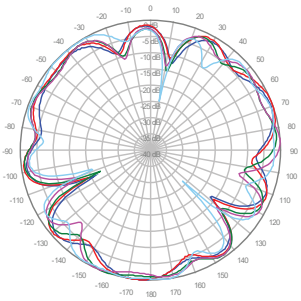


Azimuth

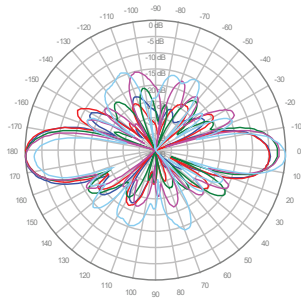


Elevation

-45°



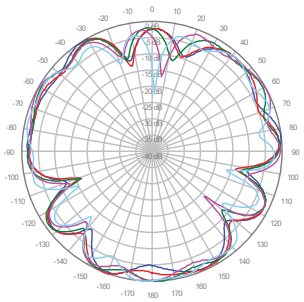
Azimuth



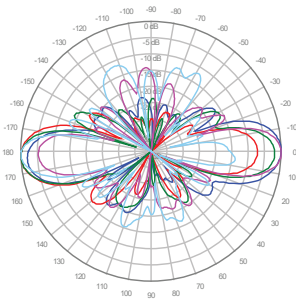
Elevation

Y8, 2° TILT

+45°

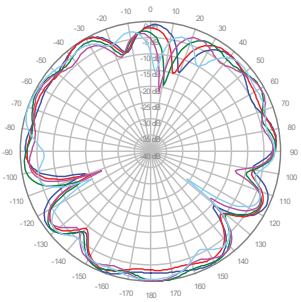


Azimuth

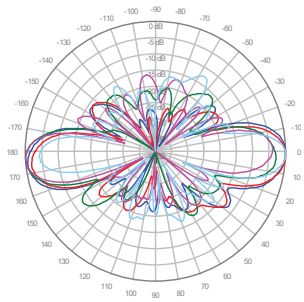


Elevation

-45°



Azimuth



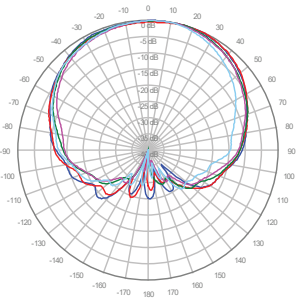
Elevation

4U4MTSP1X06Fxys4

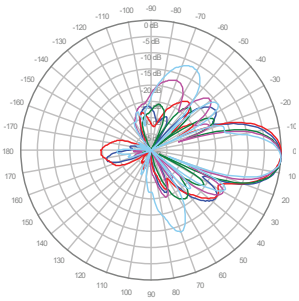
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 4° TILT

+45°

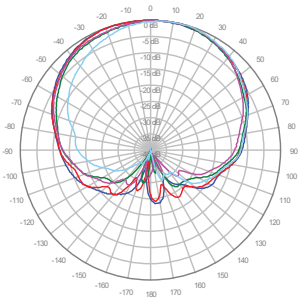


Azimuth

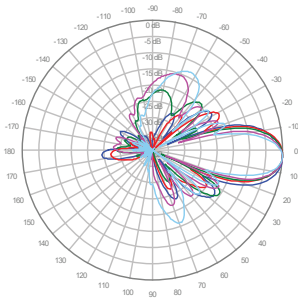


Elevation

-45°



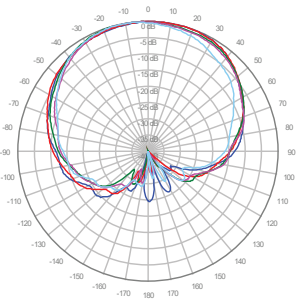
Azimuth



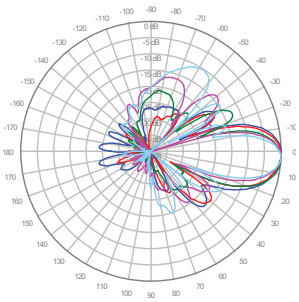
Elevation

Y2, 4° TILT

+45°

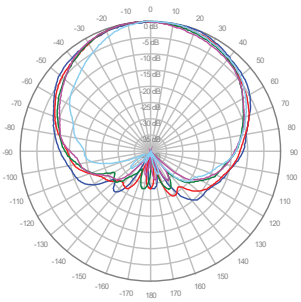


Azimuth

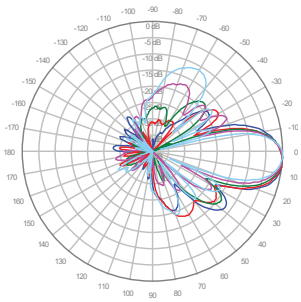


Elevation

-45°



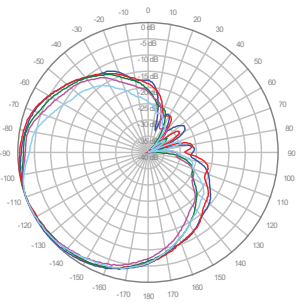
Azimuth



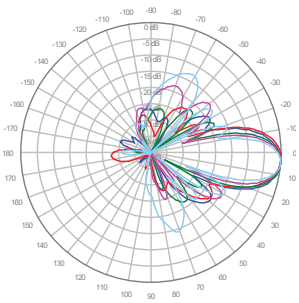
Elevation

Y3, 4° TILT

+45°

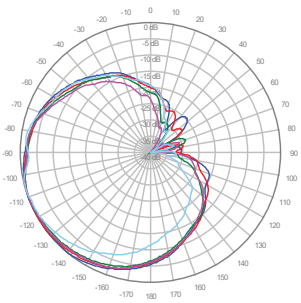


Azimuth

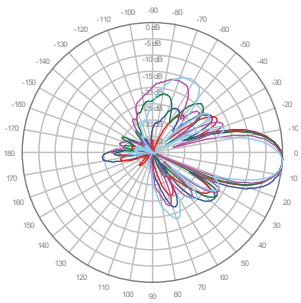


Elevation

-45°



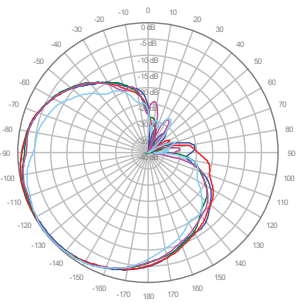
Azimuth



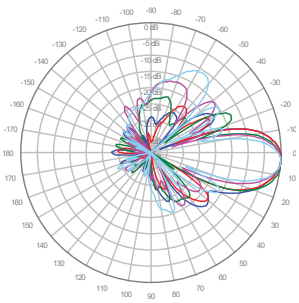
Elevation

Y4, 4° TILT

+45°

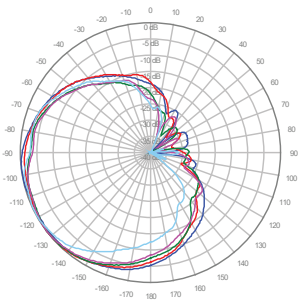


Azimuth

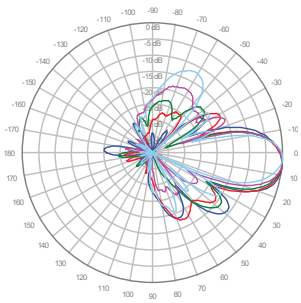


Elevation

-45°



Azimuth



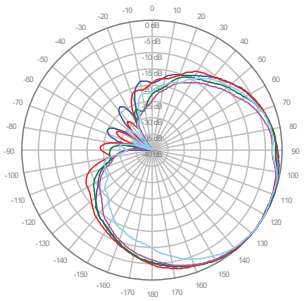
Elevation

4U4MTSP1X06Fxys4

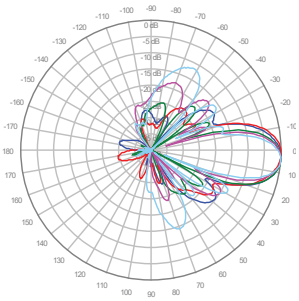
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 4° TILT

+45°

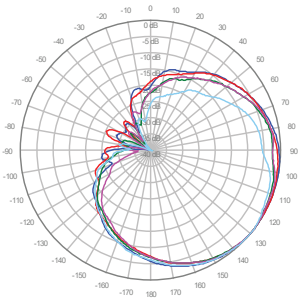


Azimuth

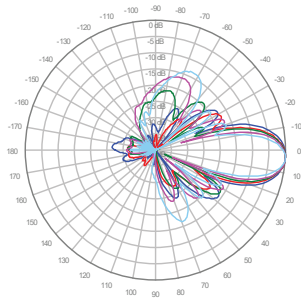


Elevation

-45°



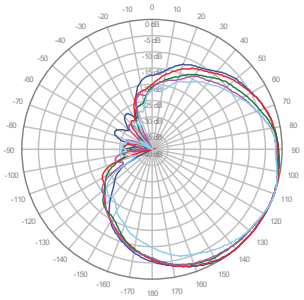
Azimuth



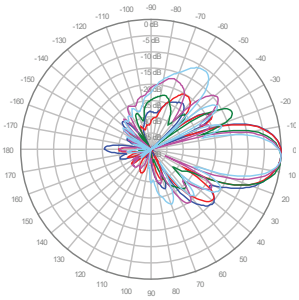
Elevation

Y6, 4° TILT

+45°

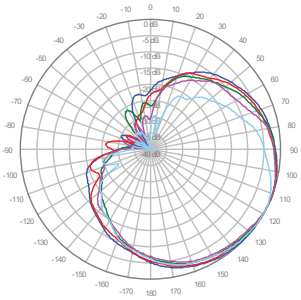


Azimuth

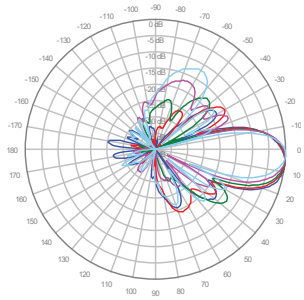


Elevation

-45°



Azimuth



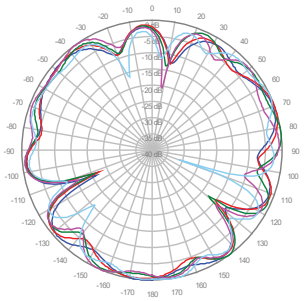
Elevation

4U4MTSP1X06Fxys4

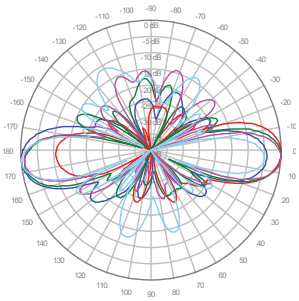
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y7, 4° TILT

+45°

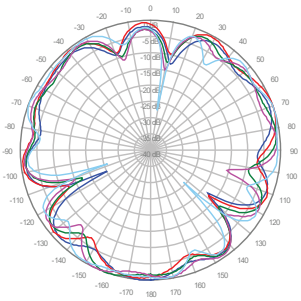


Azimuth

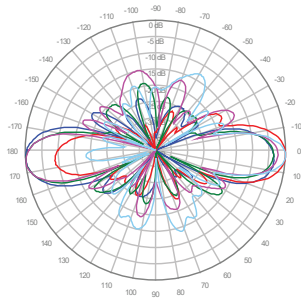


Elevation

-45°



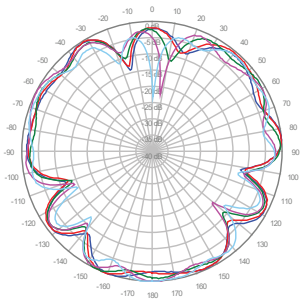
Azimuth



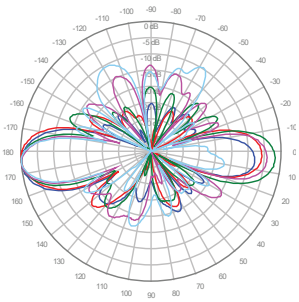
Elevation

Y8, 4° TILT

+45°

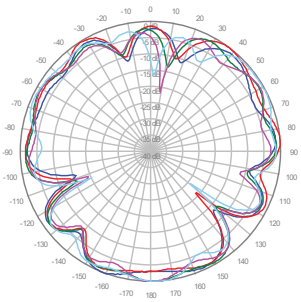


Azimuth

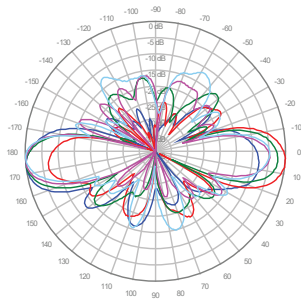


Elevation

-45°



Azimuth



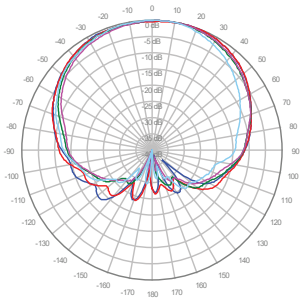
Elevation

4U4MTSP1X06Fxys4

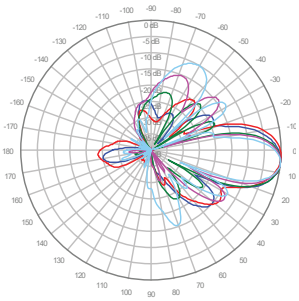
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 6° TILT

+45°

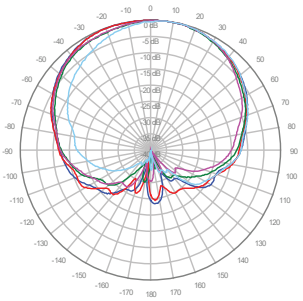


Azimuth

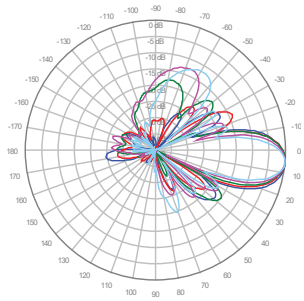


Elevation

-45°



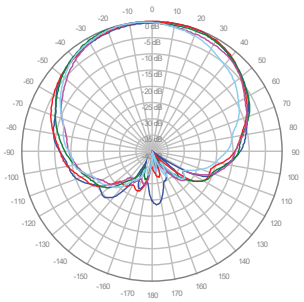
Azimuth



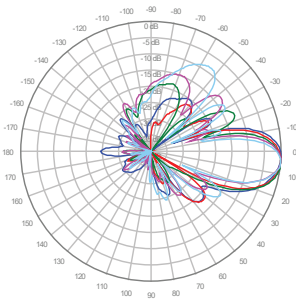
Elevation

Y2, 6° TILT

+45°

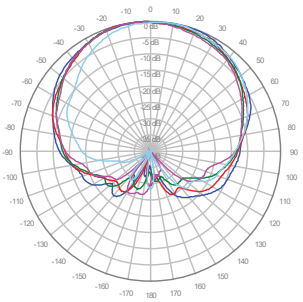


Azimuth

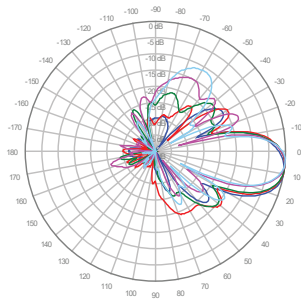


Elevation

-45°



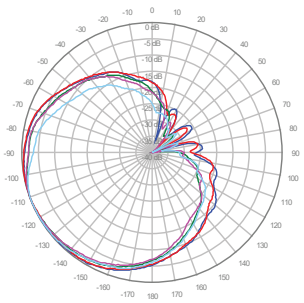
Azimuth



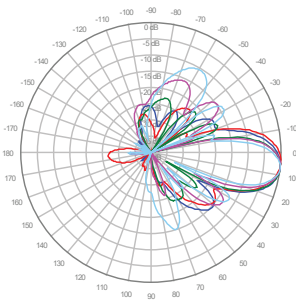
Elevation

Y3, 6° TILT

+45°

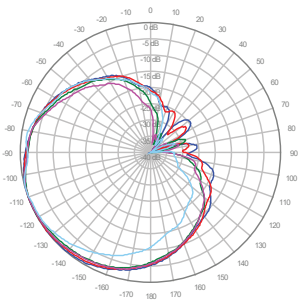


Azimuth

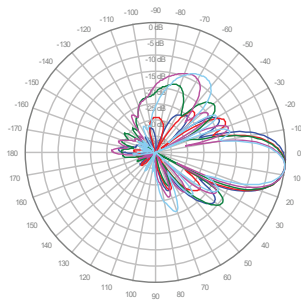


Elevation

-45°



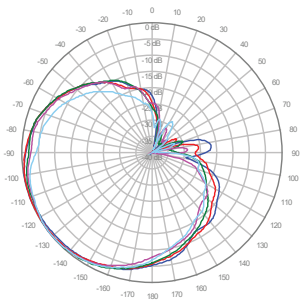
Azimuth



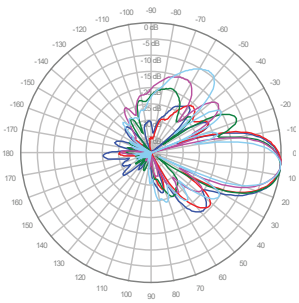
Elevation

Y4, 6° TILT

+45°

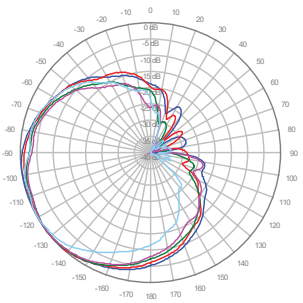


Azimuth

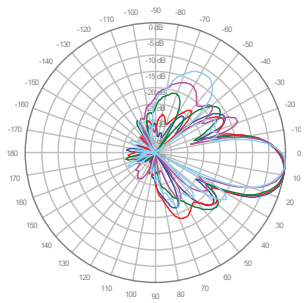


Elevation

-45°



Azimuth



Elevation

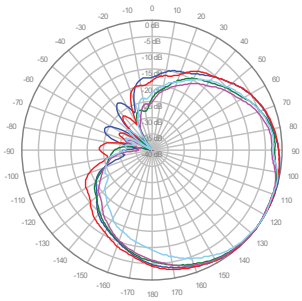
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

4U4MTSP1X06Fxys4

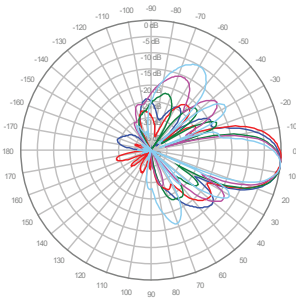
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 6° TILT

+45°

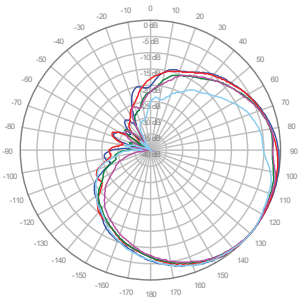


Azimuth

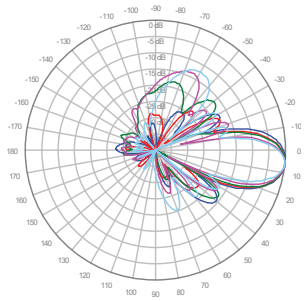


Elevation

-45°



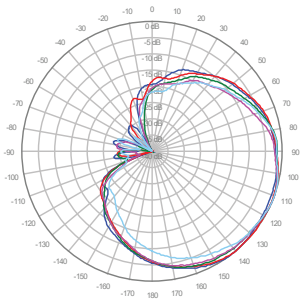
Azimuth



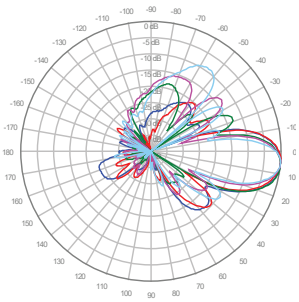
Elevation

Y6, 6° TILT

+45°

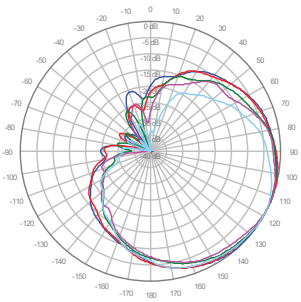


Azimuth

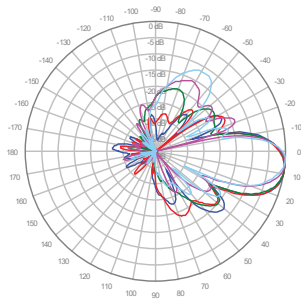


Elevation

-45°



Azimuth



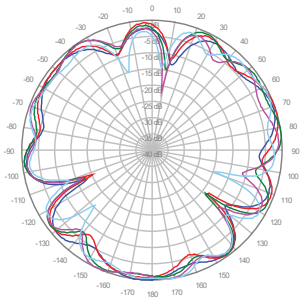
Elevation

4U4MTSP1X06Fxys4

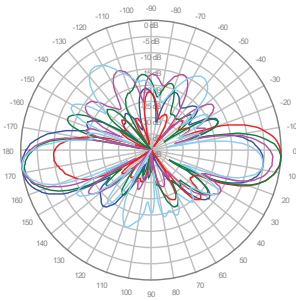
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y7, 6° TILT

+45°

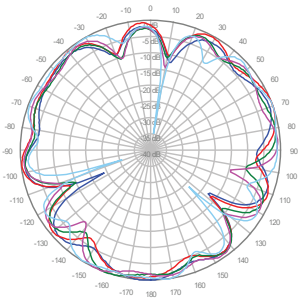


Azimuth

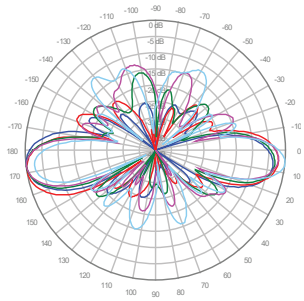


Elevation

-45°



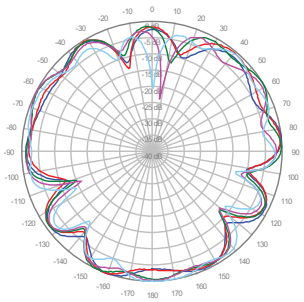
Azimuth



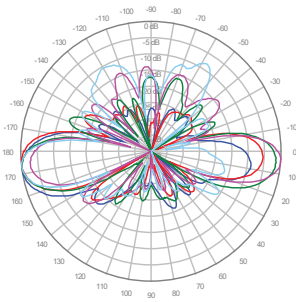
Elevation

Y8, 6° TILT

+45°

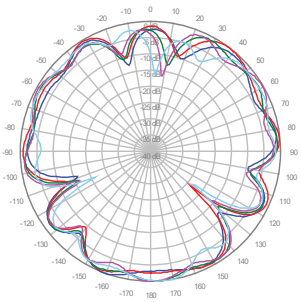


Azimuth

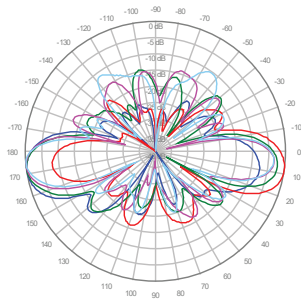


Elevation

-45°



Azimuth

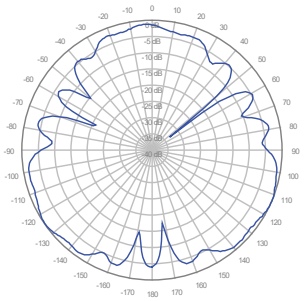


Elevation

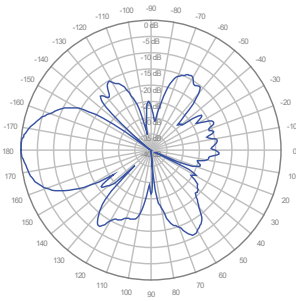
4U4MTSP1X06Fxys4

P1, 0° TILT

+45°

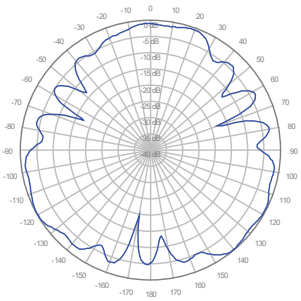


Azimuth (3600 MHz)

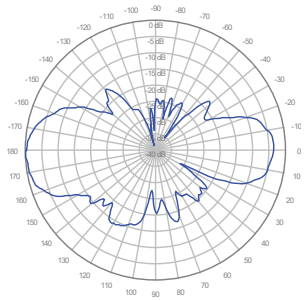


Elevation (3600 MHz)

-45°



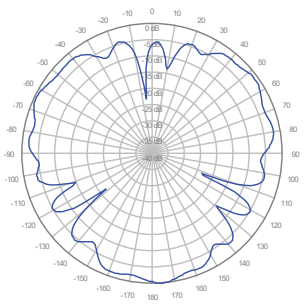
Azimuth (3600 MHz)



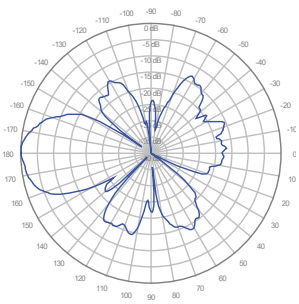
Elevation (3600 MHz)

P2, 0° TILT

+45°

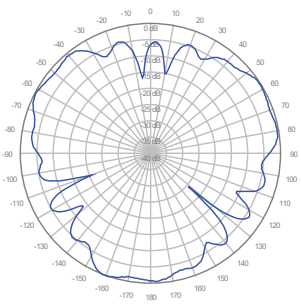


Azimuth (3600 MHz)

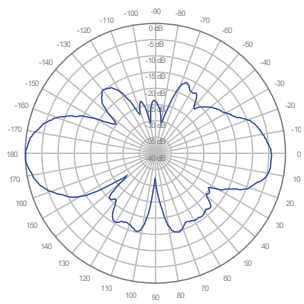


Elevation (3600 MHz)

-45°



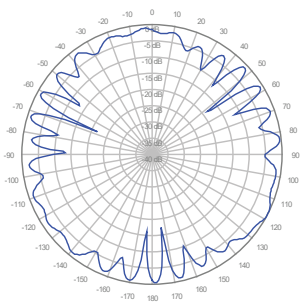
Azimuth (3600 MHz)



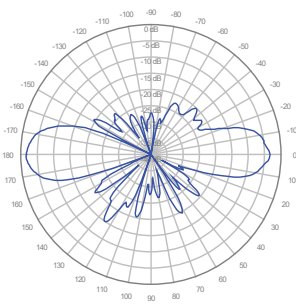
Elevation (3600 MHz)

O1, 0° TILT

+45°

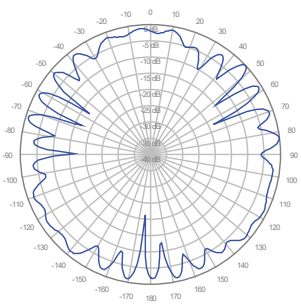


Azimuth (5600 MHz)

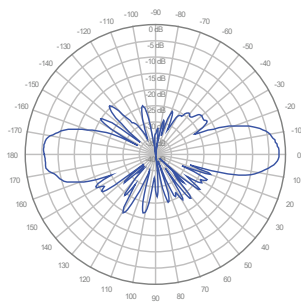


Elevation (5600 MHz)

-45°



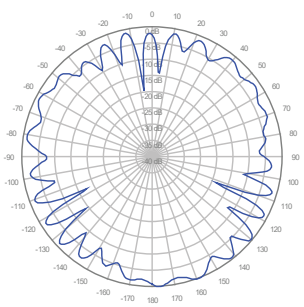
Azimuth (5600 MHz)



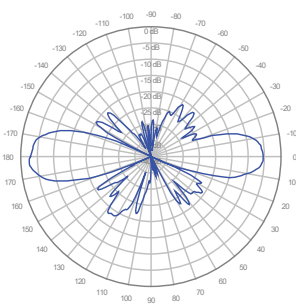
Elevation (5600 MHz)

O2, 0° TILT

+45°

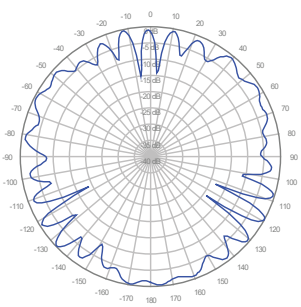


Azimuth (5600 MHz)

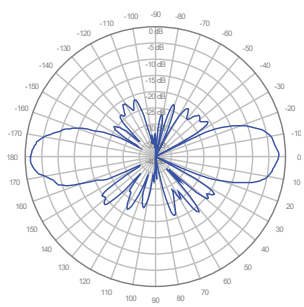


Elevation (5600 MHz)

-45°



Azimuth (5600 MHz)



Elevation (5600 MHz)