32-Port Canister Antenna

(4x) 696-960 | (8x) 1695-2700 | (2x) 3300-4200 | (2x) 5150-5925 MHz

SECTOR / OMNI COMBINATION | 23.9 IN | FIXED TILT

2C4U4MTSP1X06Fwxys4

Features

- Sector & omni configuration with 32 connectors
- Sectorized and omni arrays in both the 696-960 and 1695-2700 frequencies
- Ideal for multi-carrier or 4x4 MIMO deployments
- Broadband networks 696-960, 1695-2700 and 3300-4200 MHz
- Easily removable lifting ring
- Improvements in gain, port isolation and VSWR
- 5 GHz U-NII FCC compliant

PRODUCT OVERVIEW

Frequency Range (MHz)	(4x) 696-960		(8x) 1695-2700		(2x) 3300-4200	(2x) 5150-5925
Array	R1	R2 R3 R4	Y1 Y2	Y3 Y4 Y5 Y6 Y7 Y8	P1 P2	O1 O2
Connector	2 PORTS	6 PORTS	4 PORTS	12 PORTS	4 PORTS	4 PORTS
Polarization	XPOL	XPOL	XPOL	XPOL	XPOL	XPOL
Azimuth Beamwidth (avg)	OMNI	SECTORIZED	OMNI	SECTORIZED	OMNI	OMNI
Electrical Downtilt	0°	0°	0°, 2°, 4°, 6°	0°, 2°, 4°, 6°	0°	0°
Configuration	OMNI AND SECTOR COMBINATION CONFIGURATION					
Maximum Continuous Power Per Port @ 50° C (122° F)	500W	500W	300W	300W	100W	50W
Maximum Total Continuous Power at 50° C (122° F)	9400 WATTS					
Connector Type	(32x) 4.3-10 FEMALE					
Dimensions	608 x Ø369 mm (23.9 x Ø14.6 in)					
Radome Color Options	GREY, BROWN or BLACK					

ELECTRICAL SPECIFICATIONS Omni — **R1**

Frequency Range		MHz	(1x) 696-960	
Frequency Sub-Range		MHz	696-806	806-960
Polarization		---	(1x) ±45°	
Gain	BASTA	dBi	4.3 ± 0.6	3.8 ± 0.8
	MAX	dBi	4.9	4.6
Azimuth Beamwidth (3 dB)		degrees	360°	360°
Elevation Beamwidth (3 dB)		degrees	69.5° ± 9.9°	65.1° ± 12.7°
Electrical Downtilt		degrees	(w) 0°	
Impedance		Ohms	50Ω	
VSWR		---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153	
Upper Sidelobe Suppression		dB	N/A	
Front-to-Back Ratio		dB	N/A	
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	

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ELECTRICAL SPECIFICATIONS Sectorized

■ R2 ■ R3 ■ R4

Frequency Range		MHz	(3x) 696-960	
Frequency Sub-Range		MHz	696-806	806-960
Polarization		---	(3x) ±45°	
Gain	BASTA	dBi	7.4 ± 0.5	7.5 ± 0.8
	MAX	dBi	7.9	8.3
Azimuth Beamwidth (3 dB)		degrees	90.2° ± 7.3°	78.1° ± 12.3°
Elevation Beamwidth (3 dB)		degrees	77.8° ± 11.3°	71.4° ± 11.9°
Electrical Downtilt		degrees	(w) 0°	
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
Front-to-Back Ratio		dB	> 16	> 12
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	
Input Power		Watts	500W	

ELECTRICAL SPECIFICATIONS Omni

■ Y1 ■ Y2

Frequency Range		MHz	(2x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(2x) ±45°			
Gain	BASTA	dBi	7.0 ± 1.0	6.9 ± 1.1	6.9 ± 1.1	7.0 ± 1.1
	MAX	dBi	8.0	8.0	8.0	8.1
Azimuth Beamwidth (3 dB)		degrees	360°	360°	360°	360°
Elevation Beamwidth (3 dB)		degrees	35.2° ± 9.7°	31.3° ± 6.5°	32.0° ± 7.3°	24.1° ± 7.2°
Electrical Downtilt (±1/2°) Combined Tilt		degrees	(x) 0°, 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			
Front-to-Back Ratio		dB	N/A			
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			
Input Power		Watts	300W			

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ELECTRICAL SPECIFICATIONS Sectorized			■ **Y3** ■ **Y4** ■ **Y5** ■ **Y6** ■ **Y7** ■ **Y8**			
Frequency Range		MHz	(6x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(6x) ±45°			
Gain	BASTA	dBi	10.5 ± 0.8	10.1 ± 1.1	10.2 ± 1.2	11.0 ± 1.3
	MAX	dBi	11.3	11.2	11.4	12.3
Azimuth Beamwidth (3 dB)		degrees	68.1° ± 13.9°	76.5° ± 11.0°	71.3° ± 14.8°	57.0° ± 11.0°
Elevation Beamwidth (3 dB)		degrees	35.8° ± 5.1°	32.9° ± 4.8°	33.5° ± 27.9°	26.3° ± 6.7°
Electrical Downtilt		degrees	(x) 0°, 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	> 18	> 17	> 18	> 17
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

ELECTRICAL SPECIFICATIONS			■ **P1** ■ **P2**
Frequency Range		MHz	(2x) 3300-4200
Polarization		---	(2x) ±45°
Gain	BASTA	dBi	5.7 ± 0.4
	MAX	dBi	6.1
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	29.3° ± 4.8°
Electrical Downtilt		degrees	(y) 0°
Impedance		Ohms	50Ω
VSWR		---	≤ 1.5:1
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153
Upper Sidelobe Suppression		dB	N/A
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	4.6 ± 0.7
	MAX	dBi	5.3
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	20.4° ± 2.9°
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	Meets FCC requirements upper pattern control for use in LAA outdoor network
Isolation	Intraband	dB	> 25
	Interband	dB	> 28
U-NII Compliant		---	Yes

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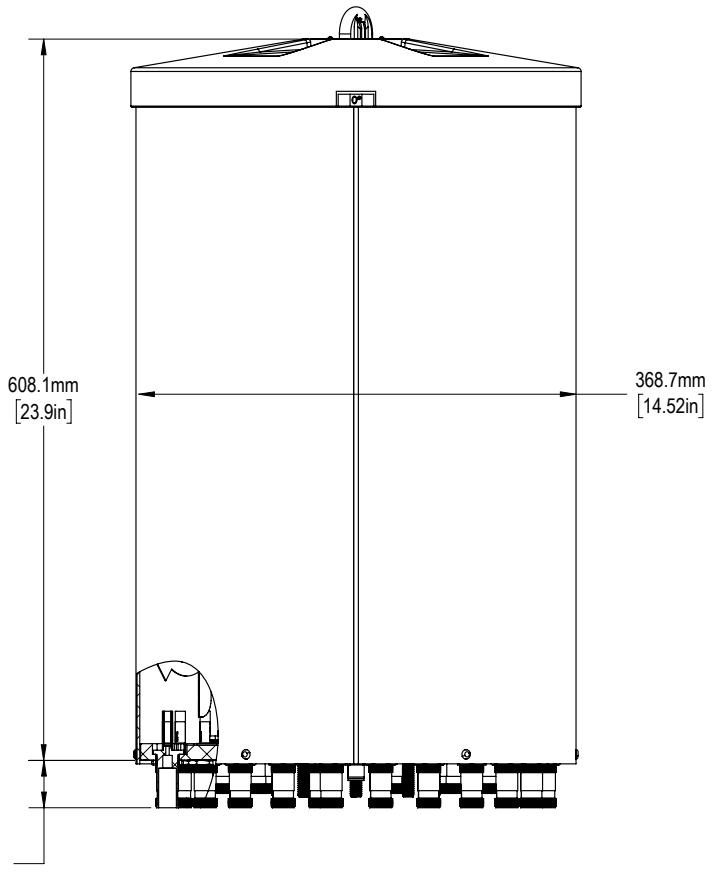
MECHANICAL SPECIFICATIONS

Antenna	Height		mm (in)	608 (23.9)
	Diameter		mm (in)	369 (14.6)
Net Weight - Antenna Only			kg (lbs)	14.1 (31)
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	---	(32x) 4.3-10 Female
		Position	---	Bottom
Radome Color			---	Grey (RAL 7035), Brown (RAL 8022), Black (RAL 9011)
Lightning Protection (Grounding Type)			---	Direct Ground



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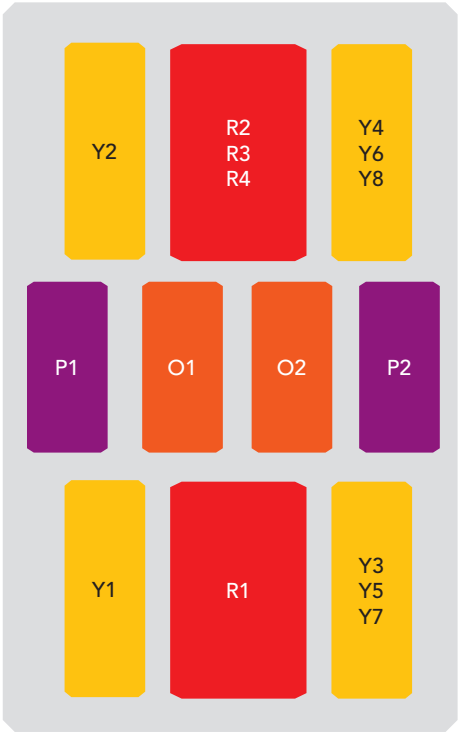
ARRAY LAYOUT Topology

FREQUENCY	ARRAY	CONNECTOR	CONNECTOR TYPE
696-960 MHz	R1	1-2	(2x) 4.3-10 Female
696-960 MHz	R2	3-4	(2x) 4.3-10 Female
696-960 MHz	R3	5-6	(2x) 4.3-10 Female
696-960 MHz	R4	78	(2x) 4.3-10 Female
1695-2700 MHz	Y1	9-10	(2x) 4.3-10 Female
1695-2700 MHz	Y2	11-12	(2x) 4.3-10 Female
1695-2700 MHz	Y3	13-14	(2x) 4.3-10 Female
1695-2700 MHz	Y4	15-16	(2x) 4.3-10 Female
1695-2700 MHz	Y5	17-18	(2x) 4.3-10 Female
1695-2700 MHz	Y6	19-20	(2x) 4.3-10 Female
1695-2700 MHz	Y7	21-22	(2x) 4.3-10 Female
1695-2700 MHz	Y8	23-24	(2x) 4.3-10 Female
3300-4200 MHz	P1	25-26	(2x) 4.3-10 Female
3300-4200 MHz	P2	27-28	(2x) 4.3-10 Female
5150-5925 MHz	O1	29-30	(2x) 4.3-10 Female
5150-5925 MHz	O2	31-32	(2x) 4.3-10 Female



The illustration is not shown to scale.

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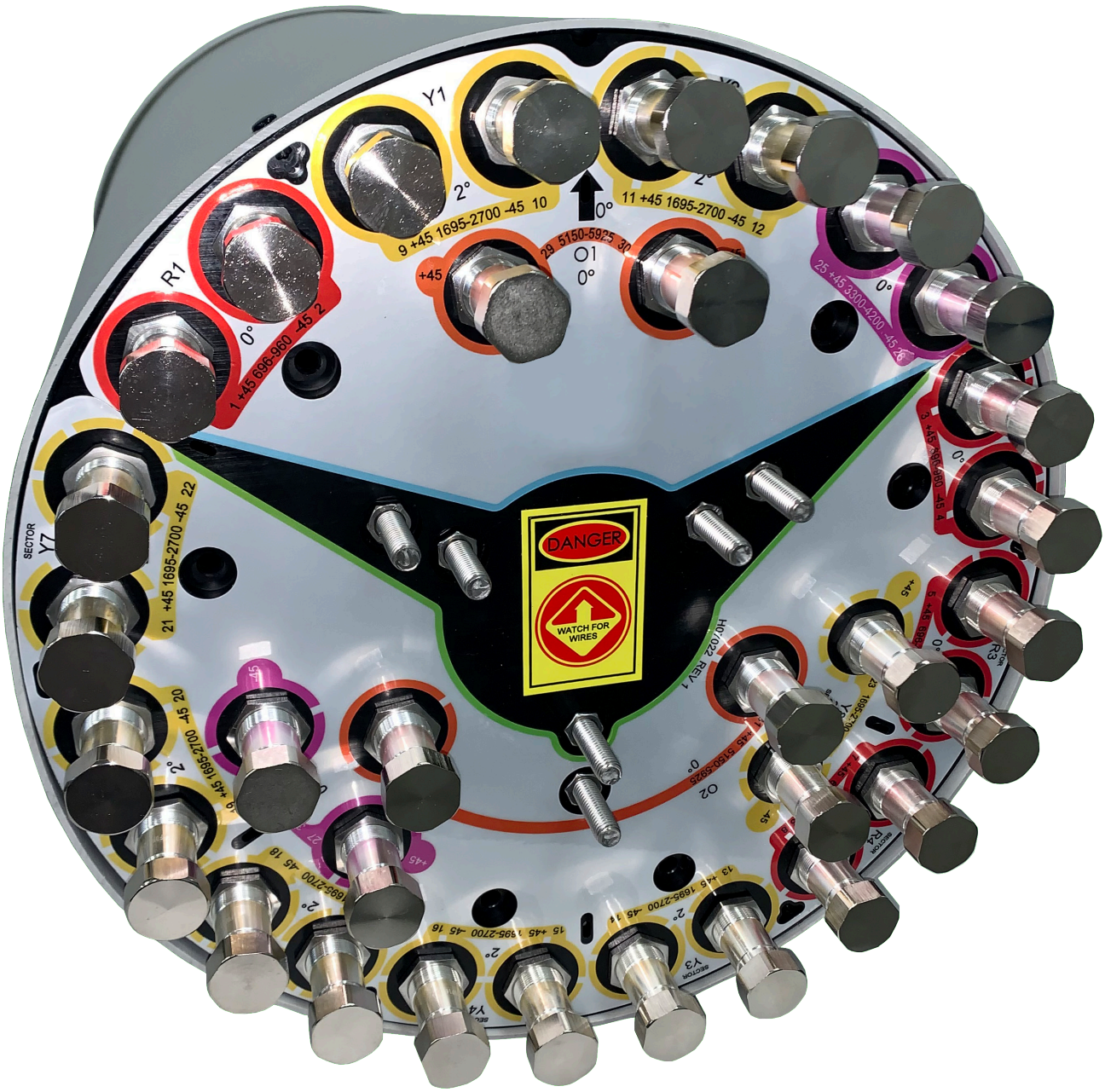
BOTTOM VIEW - LABELING



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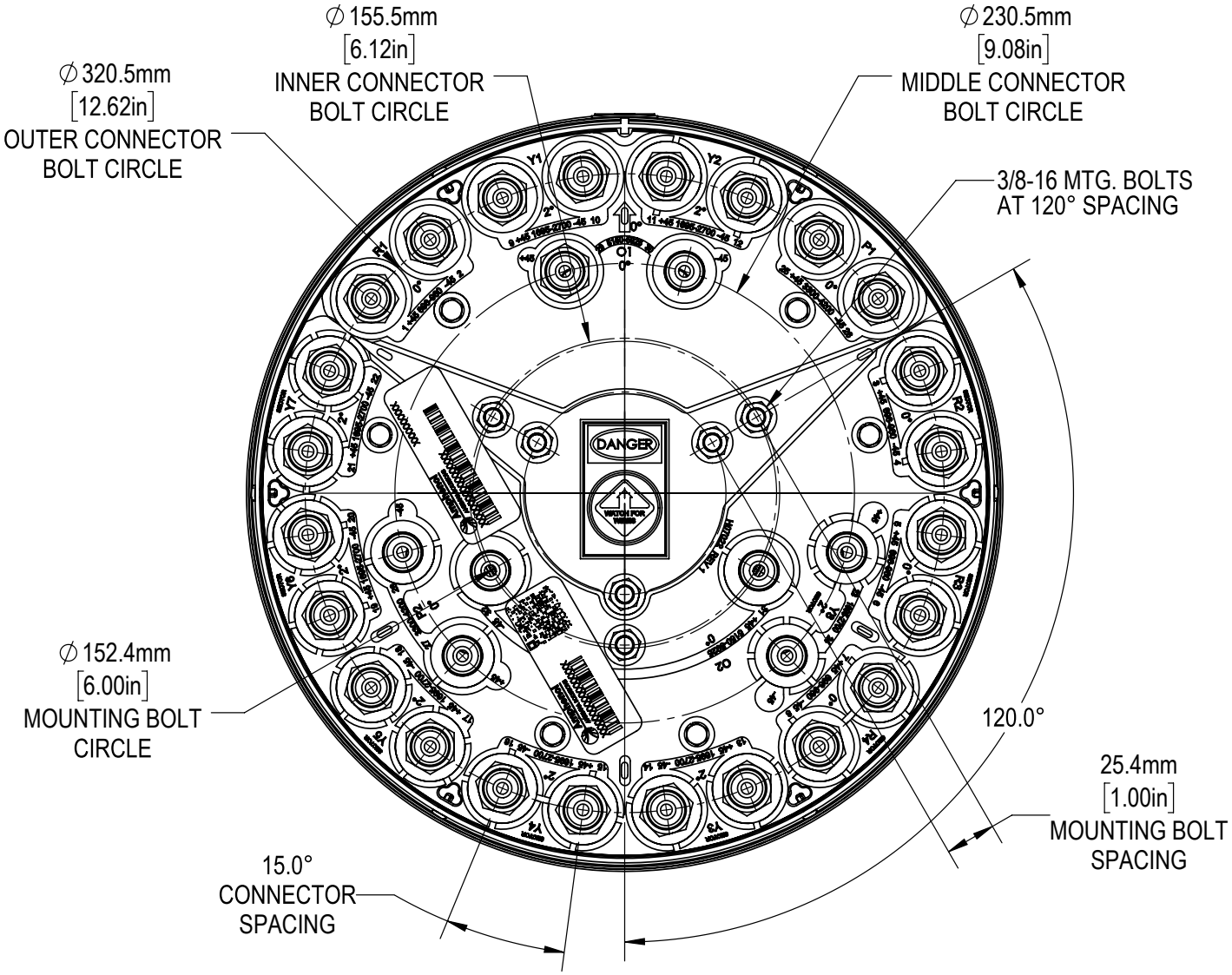
BOTTOM VIEW - CONNECTOR DIAGRAM



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 BEAMWIDTH	POLARIZA-TION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS
2C	4U	4M		T	SP1	X	06	F	wxy	s	4	BK BR
(4x) 696-960	(8x) 1695-2700	(2x) 3300-4200	(2x) 5150-5925	Tri-Sector	Sector & Omni Combination	XPOL	0.6 meters	Fixed Tilt	These letters are placehold-ers for fixed tilt options. Refer to Electrical Specifications for available tilt options.	4.3-10 Connector	4th generation 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.

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ORDERING OPTIONS Select from the following ordering options

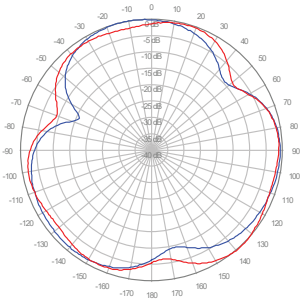
SELECT RADOME COLOR	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND				MODEL NUMBER
	696-960 MHz	1695-2700 MHz	3300-4200 MHz	5150-5925 MHz	
Grey RAL 7035	0°	0°	0°	0°	2C4U4MTSP1X06F000s4
	0°	2°	0°	0°	2C4U4MTSP1X06F020s4
	0°	4°	0°	0°	2C4U4MTSP1X06F040s4
	0°	6°	0°	0°	2C4U4MTSP1X06F060s4
	0°	Y1-Y2=2°; Y3-Y8=4°	0°	0°	2C4U4MTSP1X06FAAAs4
	0°	Y1-Y2=2°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FBBBs4
	0°	Y1-Y2=4°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FCCCs4
Brown RAL 8022	0°	0°	0°	0°	2C4U4MTSP1X06F000s4BR
	0°	2°	0°	0°	2C4U4MTSP1X06F020s4BR
	0°	4°	0°	0°	2C4U4MTSP1X06F040s4BR
	0°	6°	0°	0°	2C4U4MTSP1X06F060s4BR
	0°	Y1-Y2=2°; Y3-Y8=4°	0°	0°	2C4U4MTSP1X06FAAAs4BR
	0°	Y1-Y2=2°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FBBBs4BR
	0°	Y1-Y2=4°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FCCCs4BR
Black RAL 9011	0°	0°	0°	0°	2C4U4MTSP1X06F000s4BK
	0°	2°	0°	0°	2C4U4MTSP1X06F020s4BK
	0°	4°	0°	0°	2C4U4MTSP1X06F040s4BK
	0°	6°	0°	0°	2C4U4MTSP1X06F060s4BK
	0°	Y1-Y2=2°; Y3-Y8=4°	0°	0°	2C4U4MTSP1X06FAAAs4BK
	0°	Y1-Y2=2°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FBBBs4BK
	0°	Y1-Y2=4°; Y3-Y8=6°	0°	0°	2C4U4MTSP1X06FCCCs4BK

2C4U4MTSP1X06Fwxys4

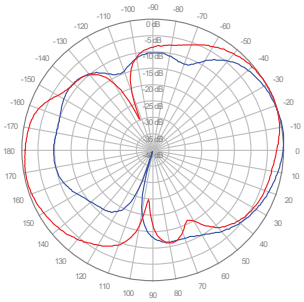
750 MHz
850 MHz

R1, 0° TILT

+45°

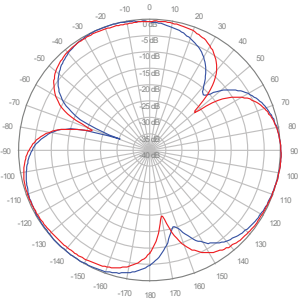


Azimuth



Elevation

-45°



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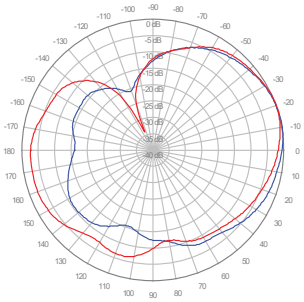
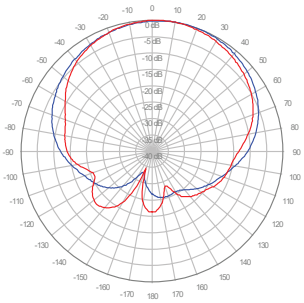


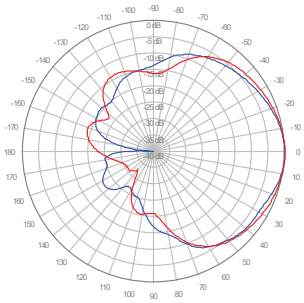
Elevation

R2, 0° TILT

+45°

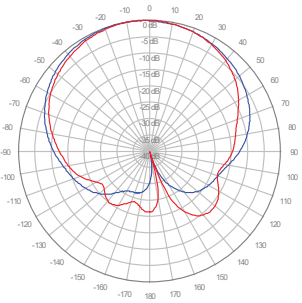


Azimuth



Elevation

-45°



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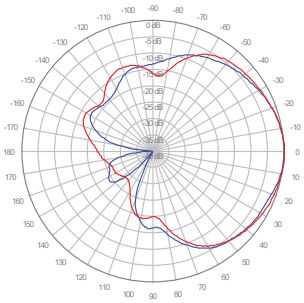
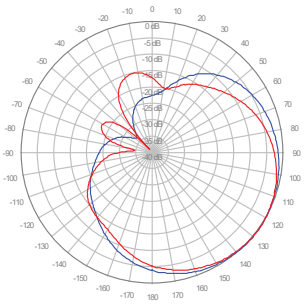


Elevation

R3, 0° TILT

+45°



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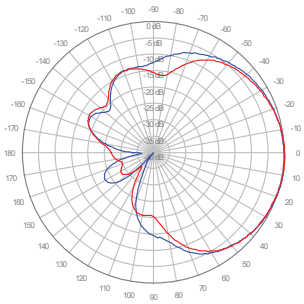
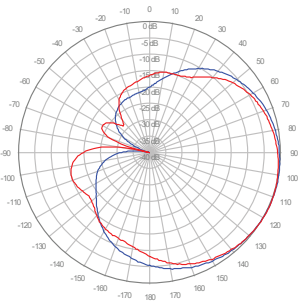


Elevation

-45°



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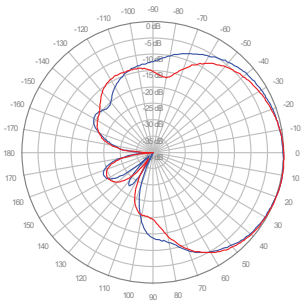
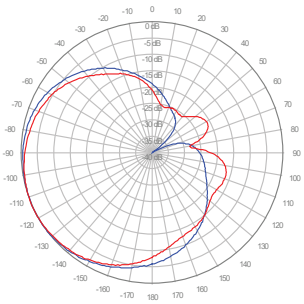


Elevation

R4, 0° TILT

+45°



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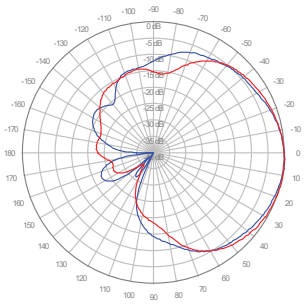
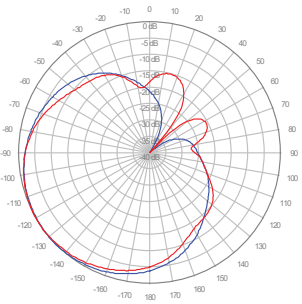


Elevation

-45°



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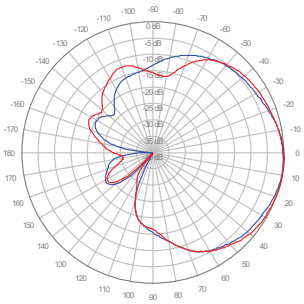

Elevation

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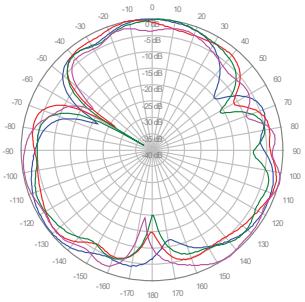
2C4U4MTSP1X06Fwxys4

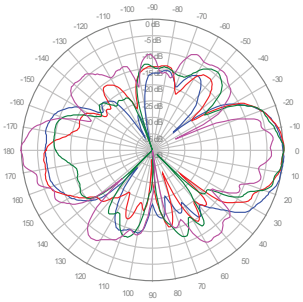
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y1, 2° TILT

+45°

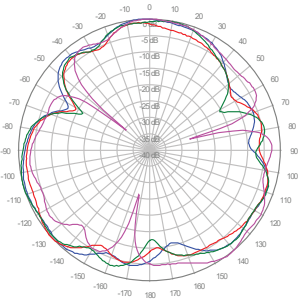


Azimuth

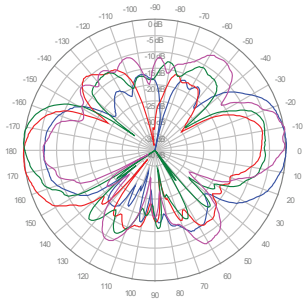


Elevation

-45°



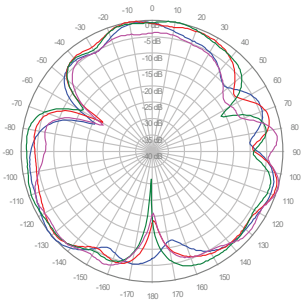
Azimuth



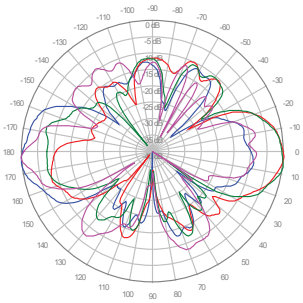
Elevation

Y2, 2° TILT

+45°

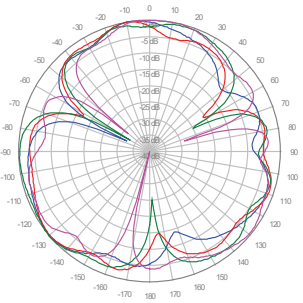


Azimuth

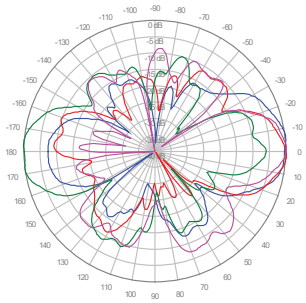


Elevation

-45°



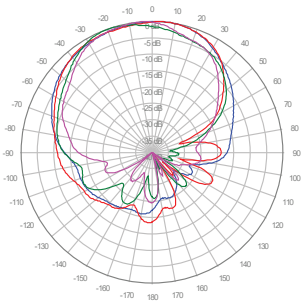
Azimuth



Elevation

Y3, 2° TILT

+45°



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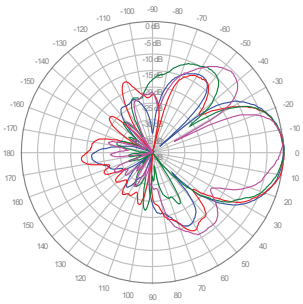
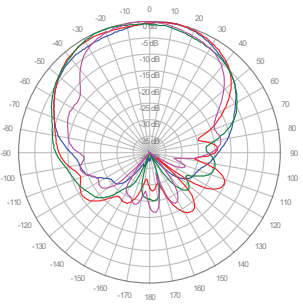
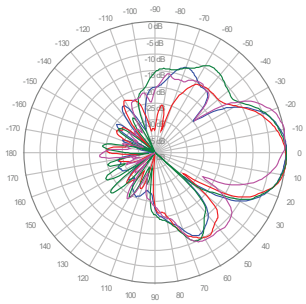


Elevation

-45°



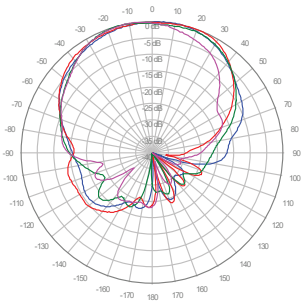
Azimuth



Elevation

Y4, 2° TILT

+45°



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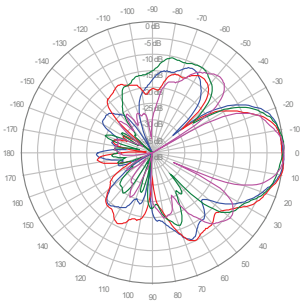
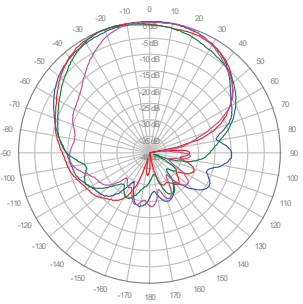
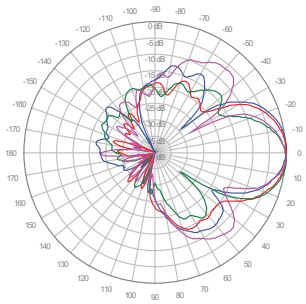


Elevation

-45°



Azimuth



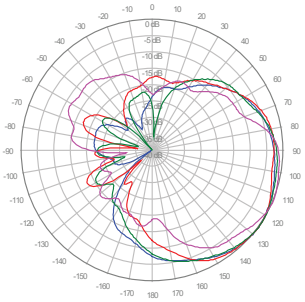
Elevation

2C4U4MTSP1X06Fwxys4

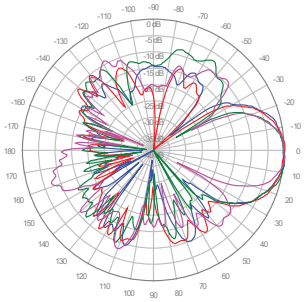
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y5, 2° TILT

+45°

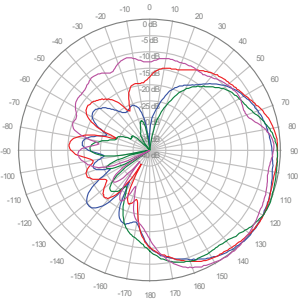


Azimuth

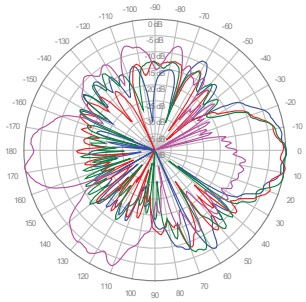


Elevation

-45°



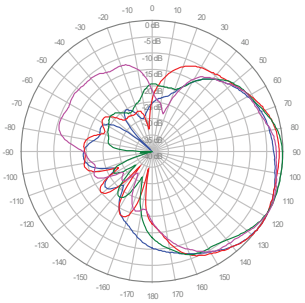
Azimuth



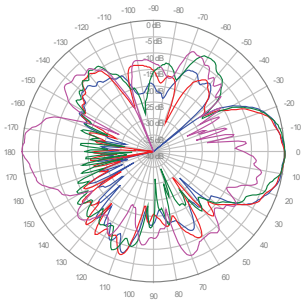
Elevation

Y6, 2° TILT

+45°

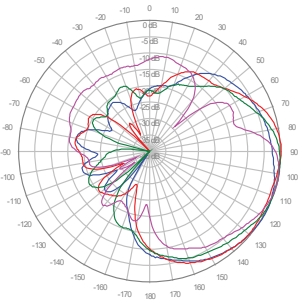


Azimuth

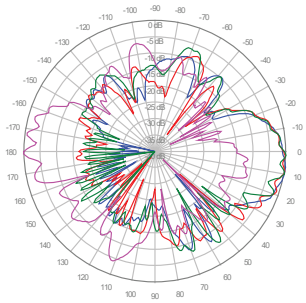


Elevation

-45°



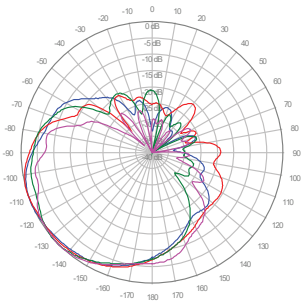
Azimuth



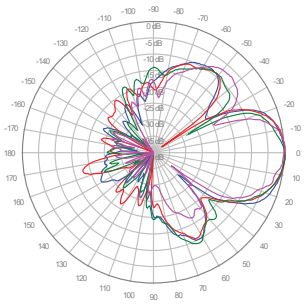
Elevation

Y7, 2° TILT

+45°

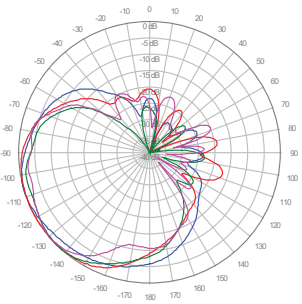


Azimuth

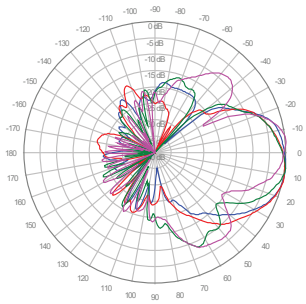


Elevation

-45°



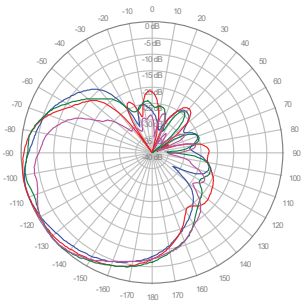
Azimuth



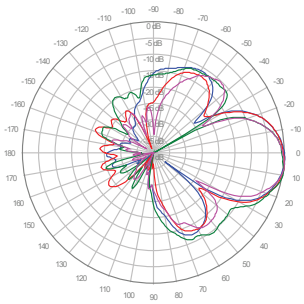
Elevation

Y8, 2° TILT

+45°

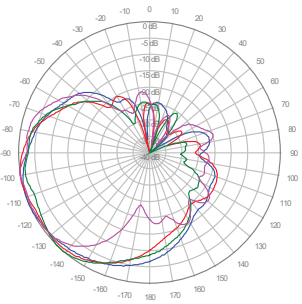


Azimuth

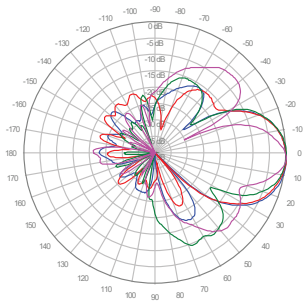


Elevation

-45°



Azimuth



Elevation

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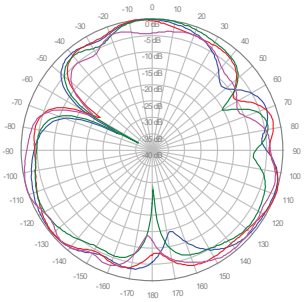
2C4U4MTSP1X06Fwxys4

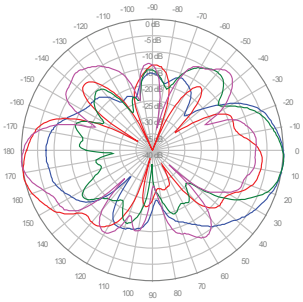
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y1, 4° TILT

+45°

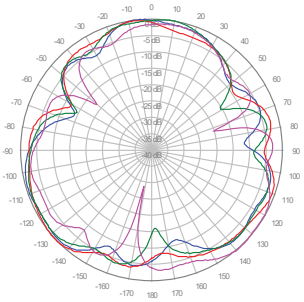


Azimuth

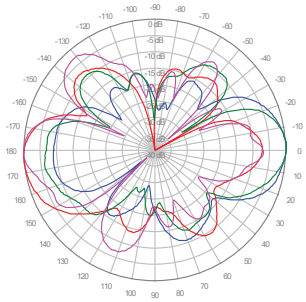


Elevation

-45°



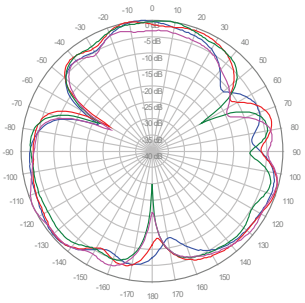
Azimuth



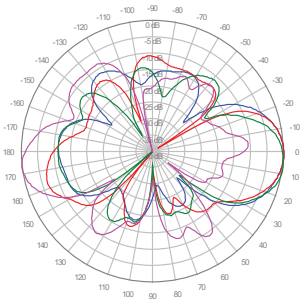
Elevation

Y2, 4° TILT

+45°

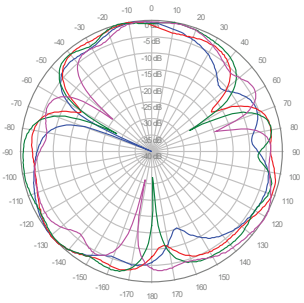


Azimuth

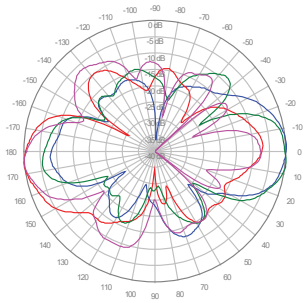


Elevation

-45°



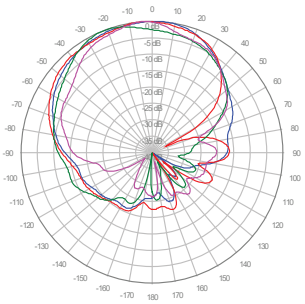
Azimuth



Elevation

Y3, 4° TILT

+45°



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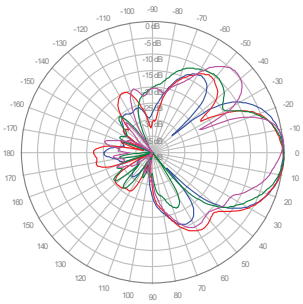
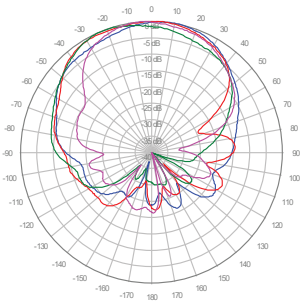
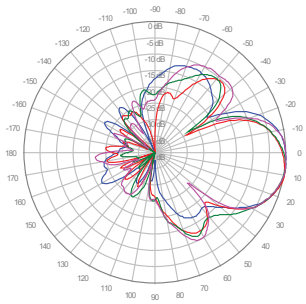


Elevation

-45°



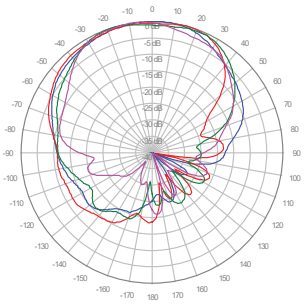
Azimuth



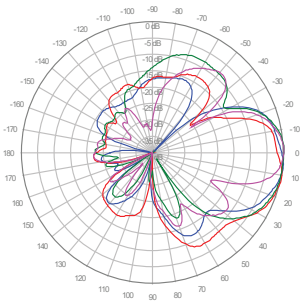
Elevation

Y4, 4° TILT

+45°

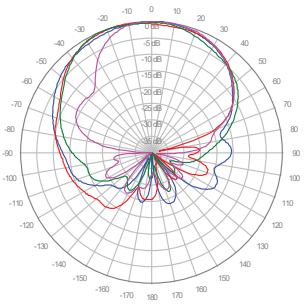


Azimuth

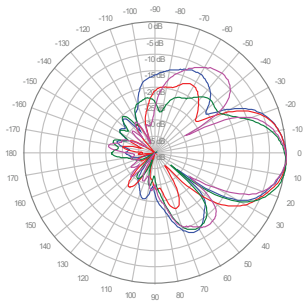


Elevation

-45°



Azimuth



Elevation

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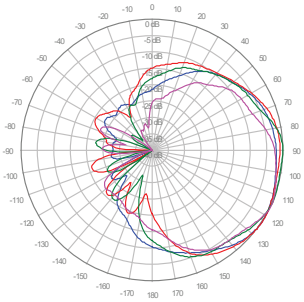
2C4U4MTSP1X06Fwxys4

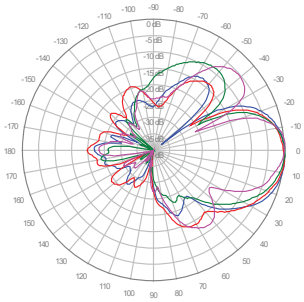
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y5, 4° TILT

+45°

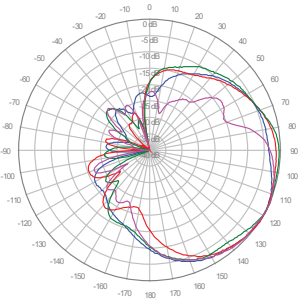


Azimuth

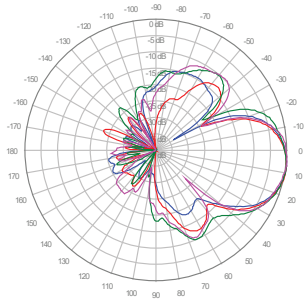


Elevation

-45°



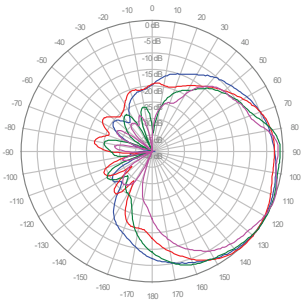
Azimuth



Elevation

Y6, 4° TILT

+45°



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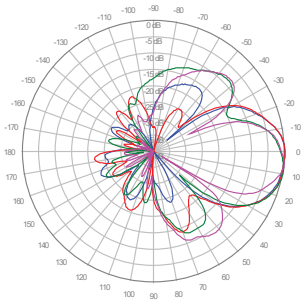
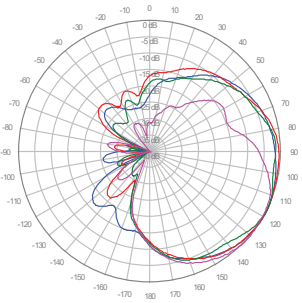
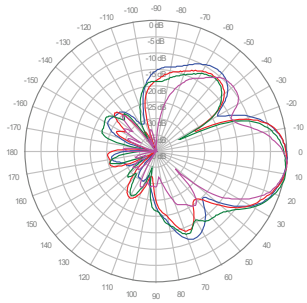


Elevation

-45°



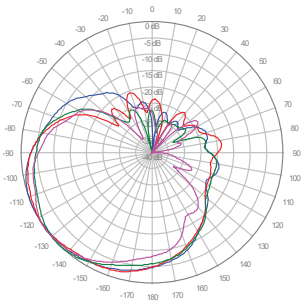
Azimuth



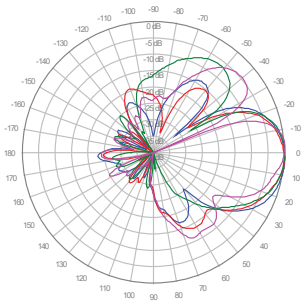
Elevation

Y7, 4° TILT

+45°

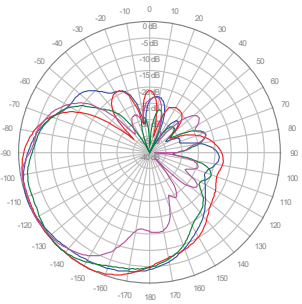


Azimuth

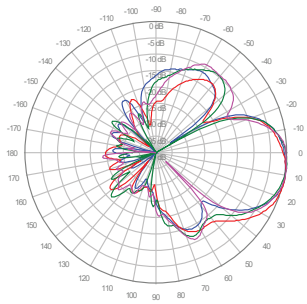


Elevation

-45°



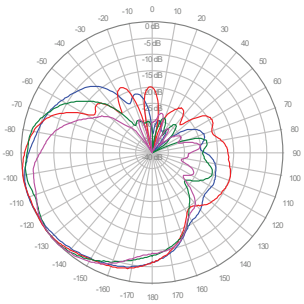
Azimuth



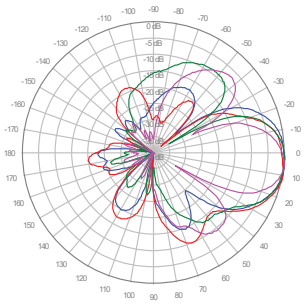
Elevation

Y8, 4° TILT

+45°

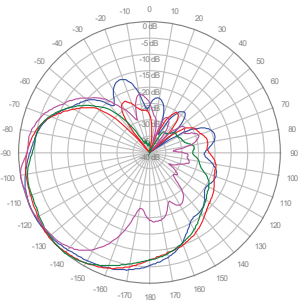


Azimuth

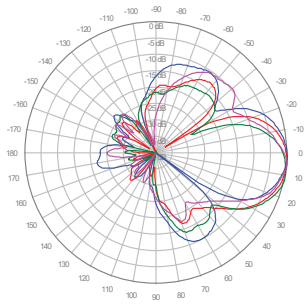


Elevation

-45°



Azimuth



Elevation

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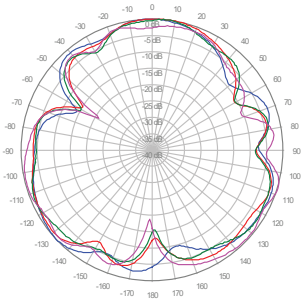
2C4U4MTSP1X06Fwxys4

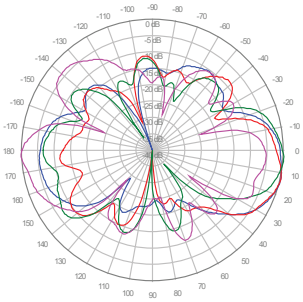
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y1, 6° TILT

+45°

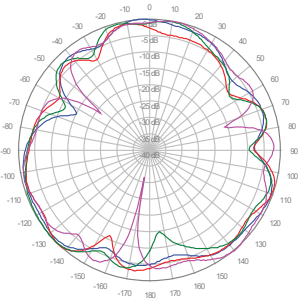


Azimuth

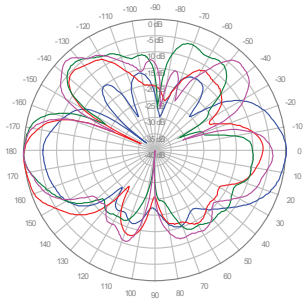


Elevation

-45°



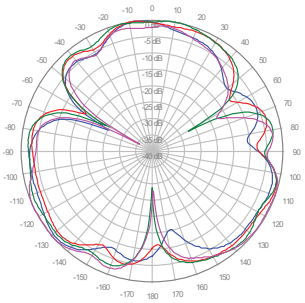
Azimuth



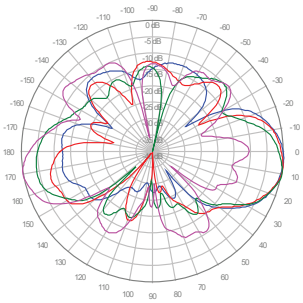
Elevation

Y2, 6° TILT

+45°

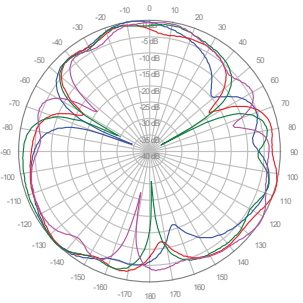


Azimuth

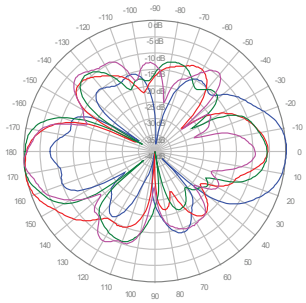


Elevation

-45°



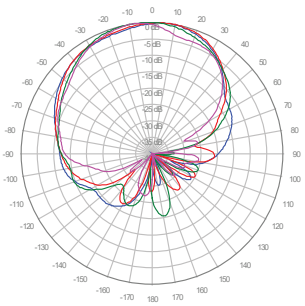
Azimuth



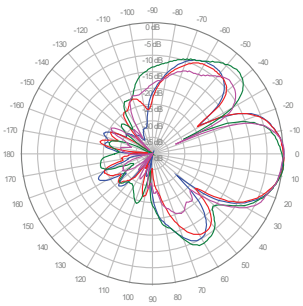
Elevation

Y3, 6° TILT

+45°

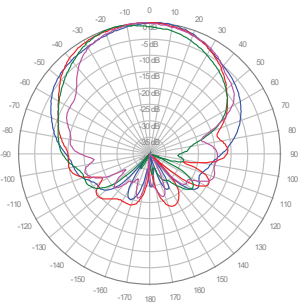


Azimuth

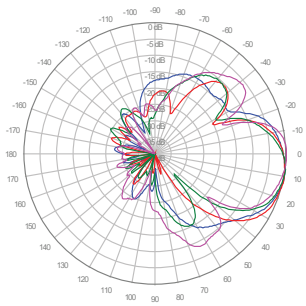


Elevation

-45°



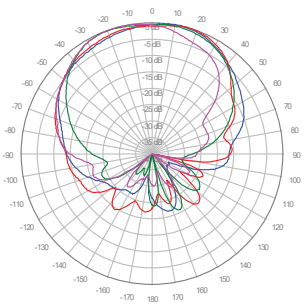
Azimuth



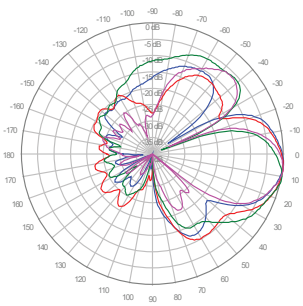
Elevation

Y4, 6° TILT

+45°

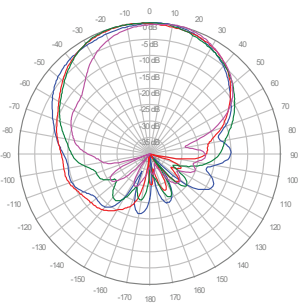


Azimuth

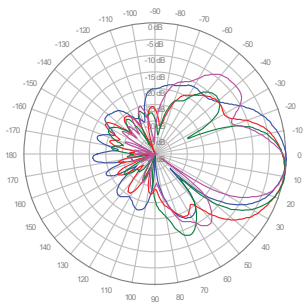


Elevation

-45°



Azimuth



Elevation

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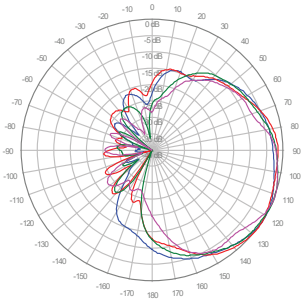
2C4U4MTSP1X06Fwxys4

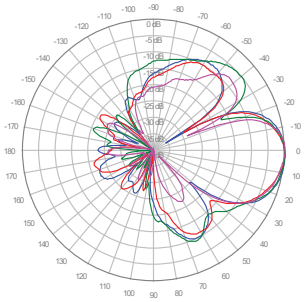
1800 MHz
1900 MHz
2100 MHz
2600 MHz

Y5, 6° TILT

+45°

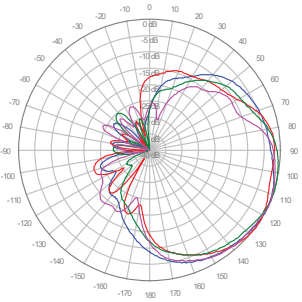


Azimuth

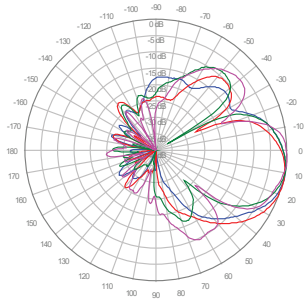


Elevation

-45°



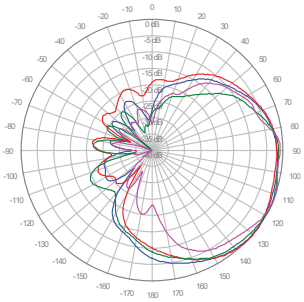
Azimuth



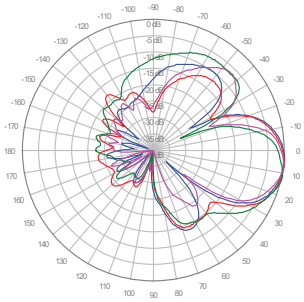
Elevation

Y6, 6° TILT

+45°

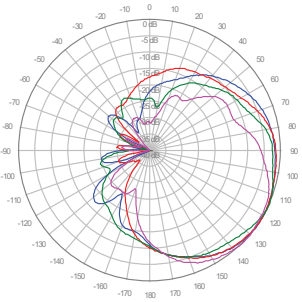


Azimuth

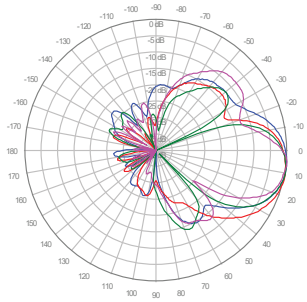


Elevation

-45°



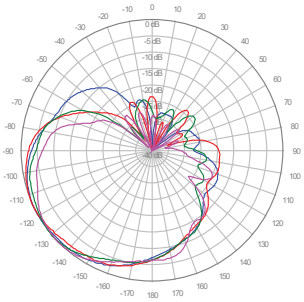
Azimuth



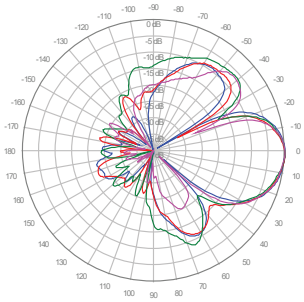
Elevation

Y7, 6° TILT

+45°

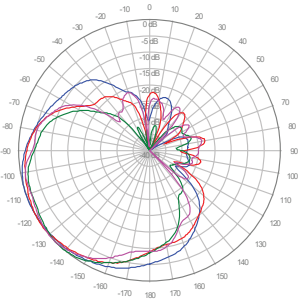


Azimuth

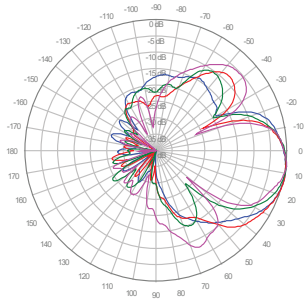


Elevation

-45°



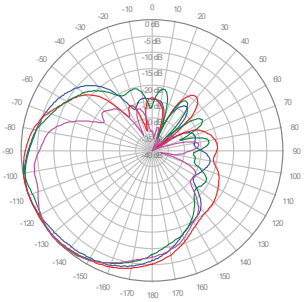
Azimuth



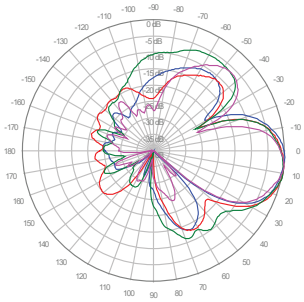
Elevation

Y8, 6° TILT

+45°

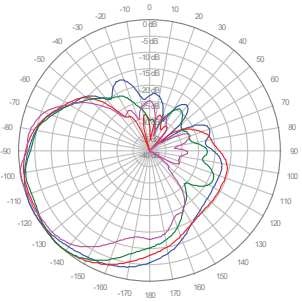


Azimuth

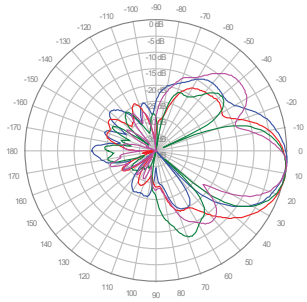


Elevation

-45°



Azimuth

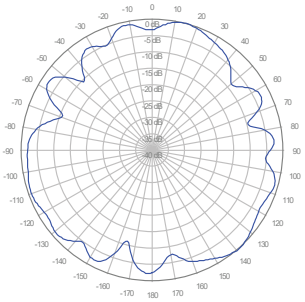


Elevation

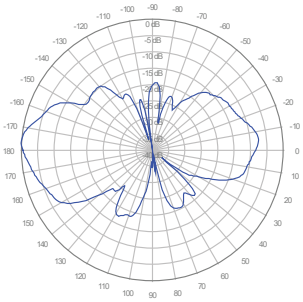
2C4U4MTSP1X06Fwxys4

P1, 0° TILT

+45°

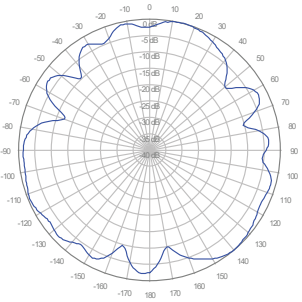


Azimuth (3600 MHz)

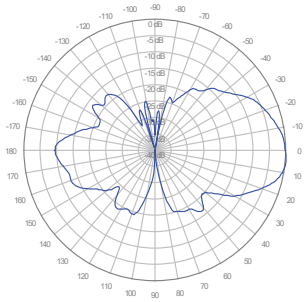


Elevation (3600 MHz)

-45°



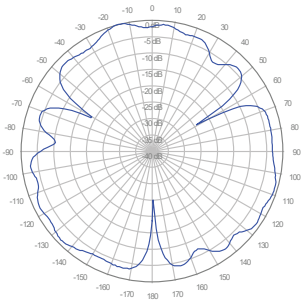
Azimuth (3600 MHz)



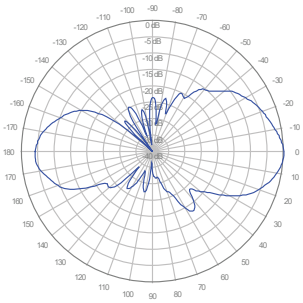
Elevation (3600 MHz)

P2, 0° TILT

+45°

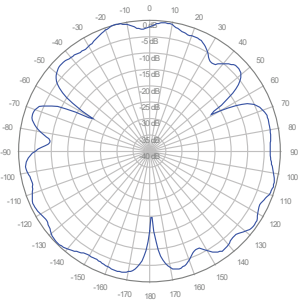


Azimuth (3600 MHz)

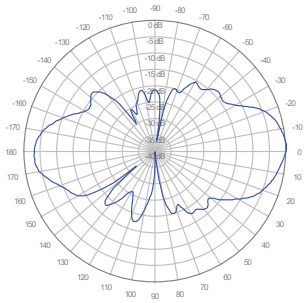


Elevation (3600 MHz)

-45°



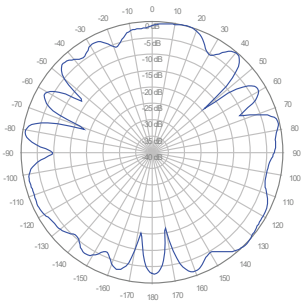
Azimuth (3600 MHz)



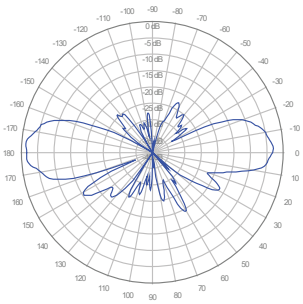
Elevation (3600 MHz)

O1, 0° TILT

+45°

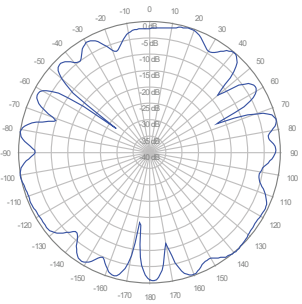


Azimuth (5600 MHz)

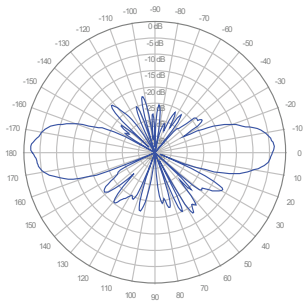


Elevation (5600 MHz)

-45°



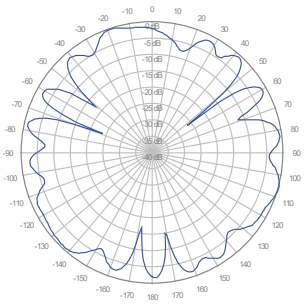
Azimuth (5600 MHz)



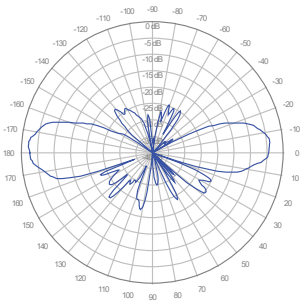
Elevation (5600 MHz)

O2, 0° TILT

+45°

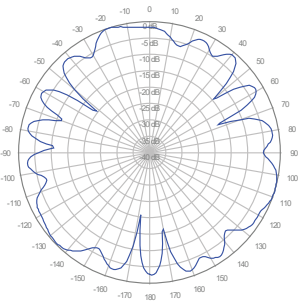


Azimuth (5600 MHz)

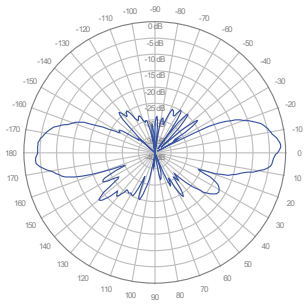


Elevation (5600 MHz)

-45°



Azimuth (5600 MHz)



Elevation (5600 MHz)