

## C2U4MTSP1X06F<sub>xy</sub>s0



### Features

- 4G/5G sector & omni configuration with 26 connectors
- Ideal for Small Cell / DAS applications
- This antenna meets the requirements of the U-NII
- Available for order with a grey, brown or black radome

PRODUCT OVERVIEW	Frequency Range (MHz)	(1x) 696-960	(2x) 1695-2700	(2x) 3550-3700	(2x) 5150-5925
	Array	■ R1 ■ R2 ■ R3	■ Y1 ■ Y2 ■ Y3 ■ Y4 ■ Y5 ■ Y6	■ P1 ■ P2	■ O1 ■ O2
	Connector	6 PORTS	12 PORTS	4 PORTS	4 PORTS
	Polarization	XPOL	XPOL	XPOL	XPOL
	Azimuth Beamwidth (avg)	Sectorized	Sectorized	Omni	Omni
	Electrical Downtilt	0°	6°	0°	0°
	Configuration	SECTOR AND OMNI COMBINATION			
	Maximum Continuous Power Per Port @ 50° C (122° F)	500 WATTS	300 WATTS	100 WATTS	50 WATTS PER FCC REQUIREMENTS
	Maximum Total Continuous Power at 50° C (122° F)	7200 WATTS			
	Total Connector Count	26 PORTS			
	Connector Type	4.3-10 FEMALE			
	Dimensions	610 x Ø371 mm (24.0 x Ø14.6 in)			
	Radome Color Options	GREY, BROWN or BLACK			

### ELECTRICAL SPECIFICATIONS

■ R1 ■ R2 ■ R3

Frequency Range		MHz	(1x) 696-960	
Frequency Sub-Range		MHz	696-806	806-960
Polarization		---	±45°	
Gain	BASTA	dBi	10.0 ± 0.8	10.2 ± 0.7
	MAX	dBi	10.8	10.9
Azimuth Beamwidth (3 dB)		degrees	88.0° ± 7.0°	83.9° ± 8.5°
Elevation Beamwidth (3 dB)		degrees	40.6° ± 2.5°	37.0° ± 5.1°
Electrical Downtilt		degrees	(x) 0°	
Impedance		Ohms	50	
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	> 17	> 18
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	

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### ELECTRICAL SPECIFICATIONS

■ Y1 ■ Y2 ■ Y3 ■ Y4 ■ Y5 ■ Y6

Frequency Range		MHz	(2x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(2x) ±45°			
Gain	BASTA	dBi	13.6 ± 0.5	13.6 ± 0.7	13.2 ± 0.7	13.8 ± 0.9
	MAX	dBi	14.1	14.3	13.9	14.7
Azimuth Beamwidth (3 dB)		degrees	66.3° ± 9.1°	71.6° ± 10.1°	73.8° ± 7.0°	67.9° ± 12.5°
Elevation Beamwidth (3 dB)		degrees	21.9° ± 1.6°	19.9° ± 1.6°	19.3° ± 1.7°	17.9° ± 27.4°
Electrical Downtilt		degrees	(y) 6°			
Impedance		Ohms	50			
VSWR		---	≤ 1.5:1			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153			
Upper Sidelobe Suppression		dB	N/A	> 14	> 12	> 12
Front-to-Back Ratio		dB	> 25	> 25	> 24	> 23
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

### ELECTRICAL SPECIFICATIONS

■ P1 ■ P2

Frequency Range		MHz	(2x) 3550-3700
Polarization		---	(2x) ±45°
Gain	BASTA	dBi	6.4 ± 0.8
	MAX	dBi	7.2
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	30.4° ± 3.9°
Electrical Downtilt		degrees	0°
Impedance		Ohms	50
VSWR		---	≤ 1.5:1
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	N/A
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

■ O1 ■ O2

Frequency Range		MHz	(2x) 5150-5925
Polarization		---	(2x) $\pm 45^\circ$
Gain	BASTA	dBi	$4.3 \pm 0.8$
	MAX	dBi	5.1
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	$21.1^\circ \pm 3.9^\circ$
Electrical Downtilt		degrees	0°
Impedance		Ohms	50
VSWR		---	$\leq 1.5:1$
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBm (dBc)	N/A
Upper Sidelobe Suppression		dB	Meets FCC requirements upper pattern control for use in LAA outdoor network
Front-to-Back Ratio		dB	N/A
Isolation	Intraband	dB	> 25
	Interband	dB	> 28

### MECHANICAL SPECIFICATIONS

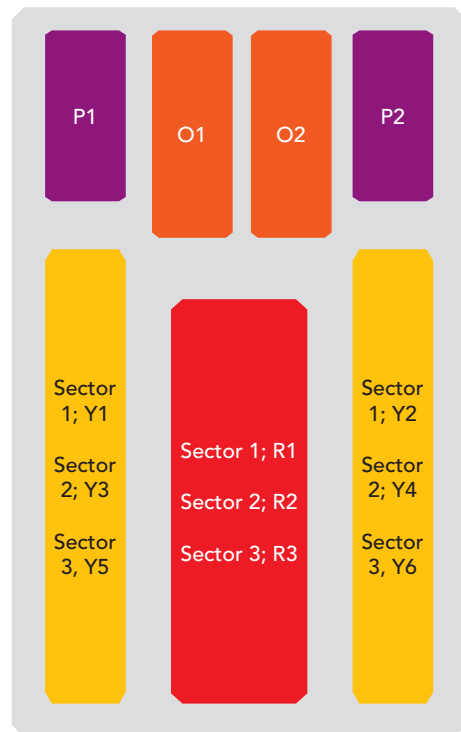
Antenna	Height	mm (in)	610 (24.0)
	Diameter	mm (in)	371 (14.6)
Net Weight - Antenna Only		kg (lbs)	12.5 (27.5)
Windload	Calculation	km/h (mph)	160 (100)
	Frontal	N (lbf)	191 (43)
Survival Wind Speed		km/h (mph)	241 (150)
Wind Area		m <sup>2</sup> (ft <sup>2</sup> )	0.22 (2.4)
Volume		m <sup>3</sup> (ft <sup>3</sup> )	0.07 (2.3)
Connector	Type	---	4.3-10 Female
	Quantity	---	26
	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

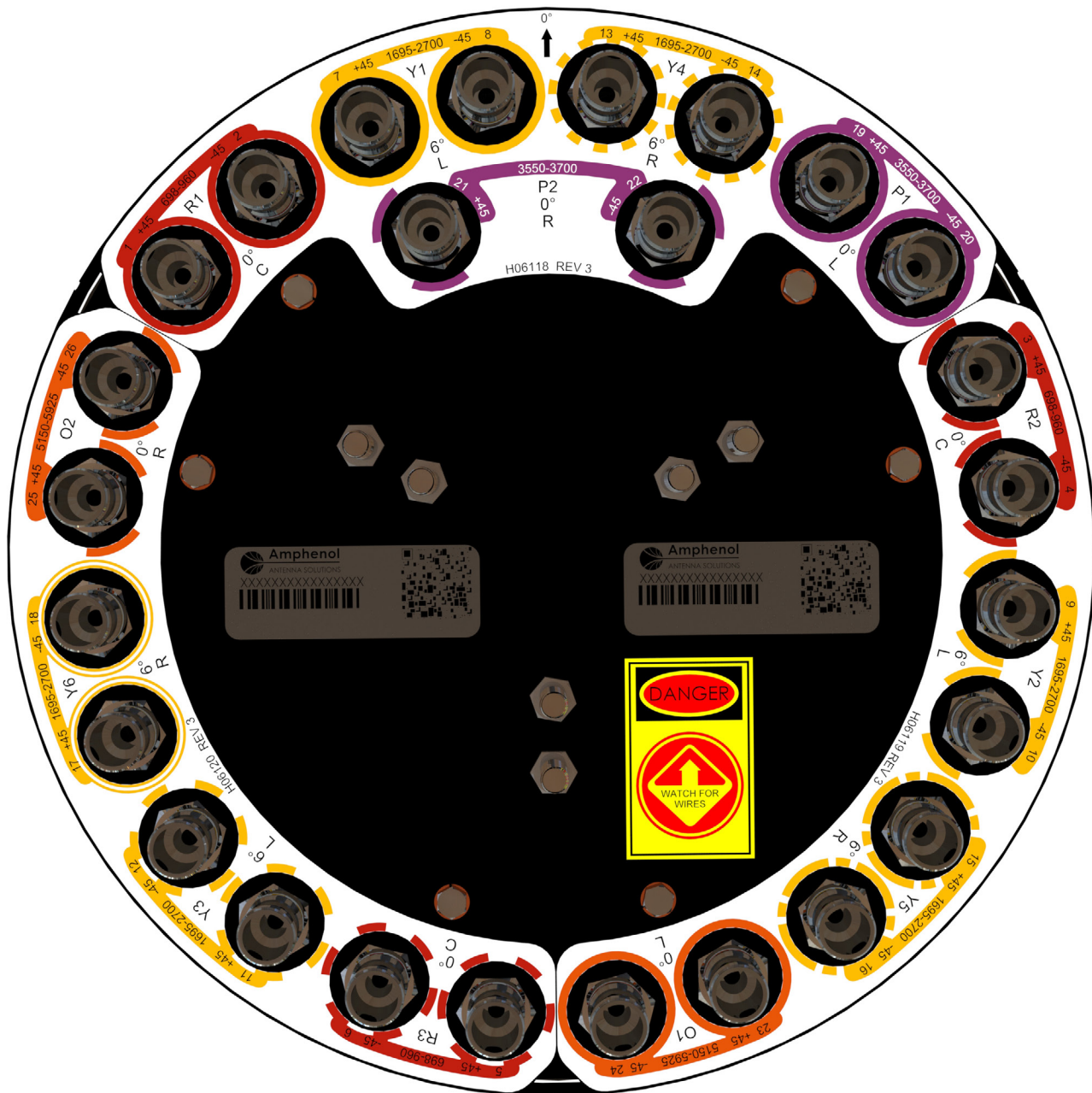
FREQUENCY	ARRAY	CONNECTOR	CONNECTOR TYPE
696-960 MHz	<span style="color: red;">■</span> R1	1-2	(2x) 4.3-10 Female
	<span style="color: red;">■</span> R2	3-4	(2x) 4.3-10 Female
	<span style="color: red;">■</span> R3	5-6	(2x) 4.3-10 Female
1695-2700 MHz	<span style="color: yellow;">■</span> Y1	7-8	(2x) 4.3-10 Female
	<span style="color: yellow;">■</span> Y3	11-12	(2x) 4.3-10 Female
	<span style="color: yellow;">■</span> Y5	15-16	(2x) 4.3-10 Female
1695-2700 MHz	<span style="color: yellow;">■</span> Y2	9-10	(2x) 4.3-10 Female
	<span style="color: yellow;">■</span> Y4	13-14	(2x) 4.3-10 Female
	<span style="color: yellow;">■</span> Y6	17-18	(2x) 4.3-10 Female
3300-4200 MHz	<span style="color: purple;">■</span> P1	19-20	(2x) 4.3-10 Female
3300-4200 MHz	<span style="color: purple;">■</span> P2	21-22	(2x) 4.3-10 Female
5150-5925 MHz	<span style="color: orange;">■</span> O1	23-24	(2x) 4.3-10 Female
5150-5925 MHz	<span style="color: orange;">■</span> O2	25-26	(2x) 4.3-10 Female



The illustration is not shown to scale.

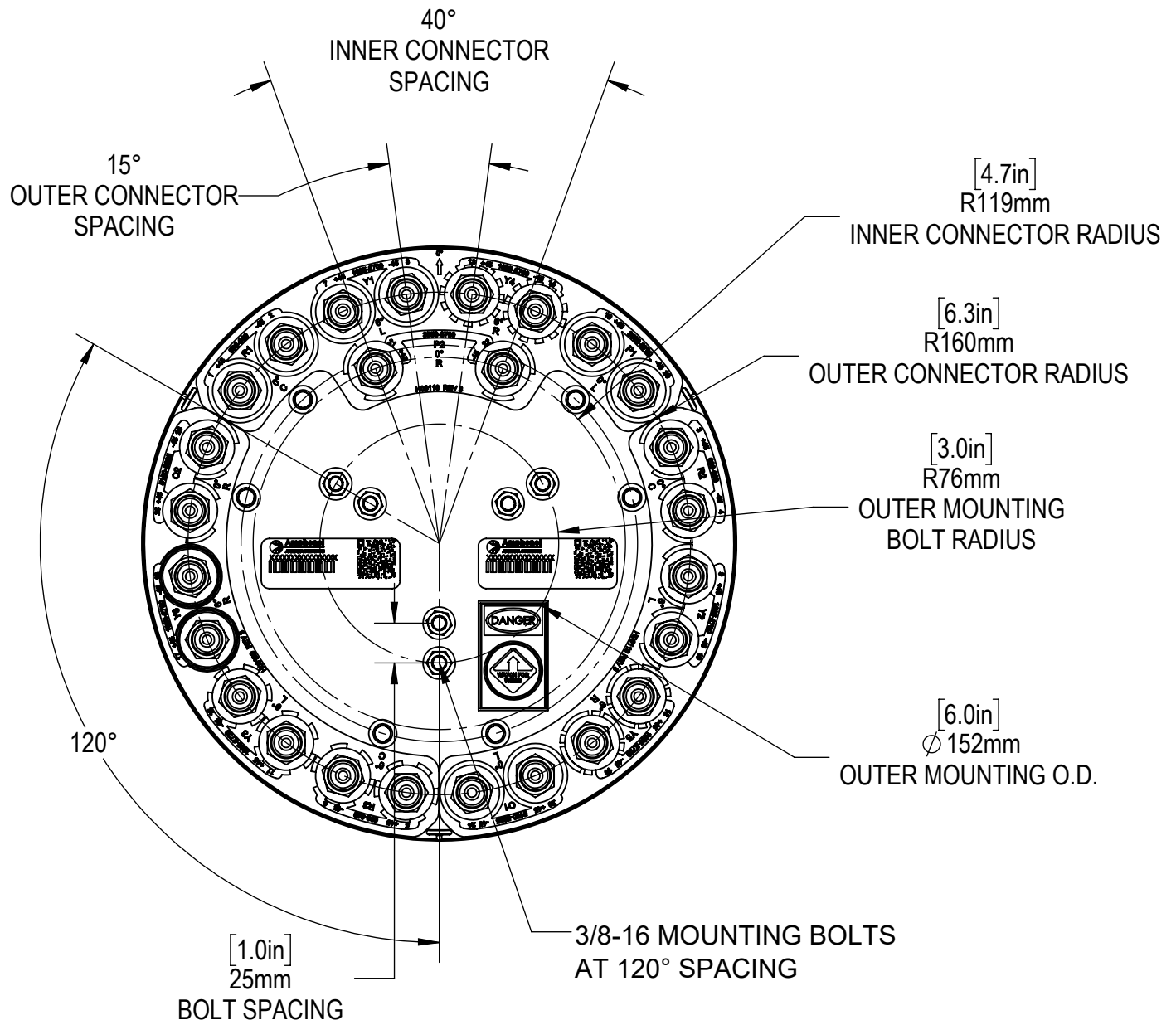
## C2U4MTSP1X06Fxyso

### 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 BMWIDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS
C	2U	4M		T	SP1	X	06	F	xy	s	0	BK BR
(1x) 696-960	(2x) 1695-2700	(2x) 3550-3700	(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	Original Variation	BK indicates a Black radome.  BR indicates a Brown radome.  The default radome color is Grey. No letters are required for a Grey radome.

### ORDERING OPTIONS Select from the following ordering options

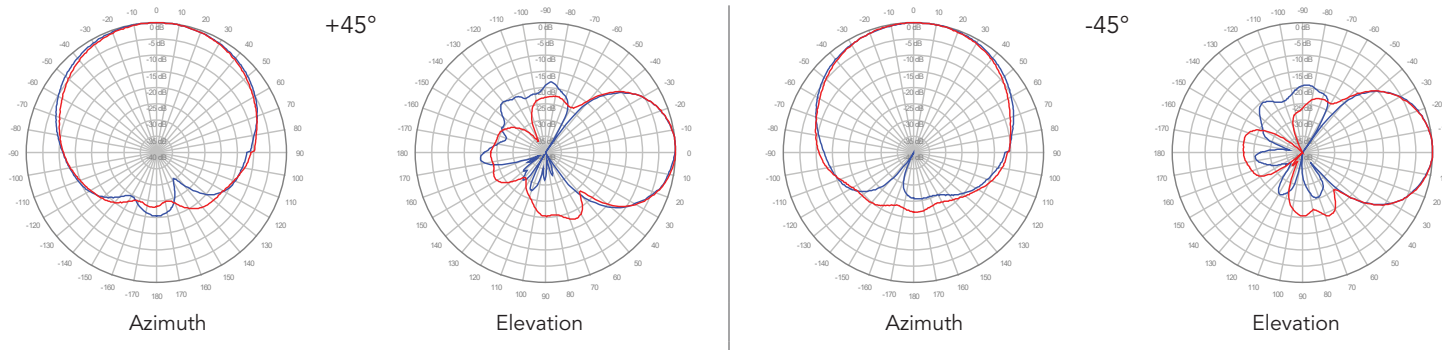
SELECT RADOME COLOR	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND				ORDERING MODEL NUMBER
	LOW BAND	MID BAND	CBRS BAND	LAA BAND	
Grey Pantone 420 C	0°	6°	0°	0°	C2U4MTSP1X06F06s0
Brown Pantone 476 C	0°	6°	0°	0°	C2U4MTSP1X06F06s0BR
Black RAL 9011	0°	6°	0°	0°	C2U4MTSP1X06F06s0BK



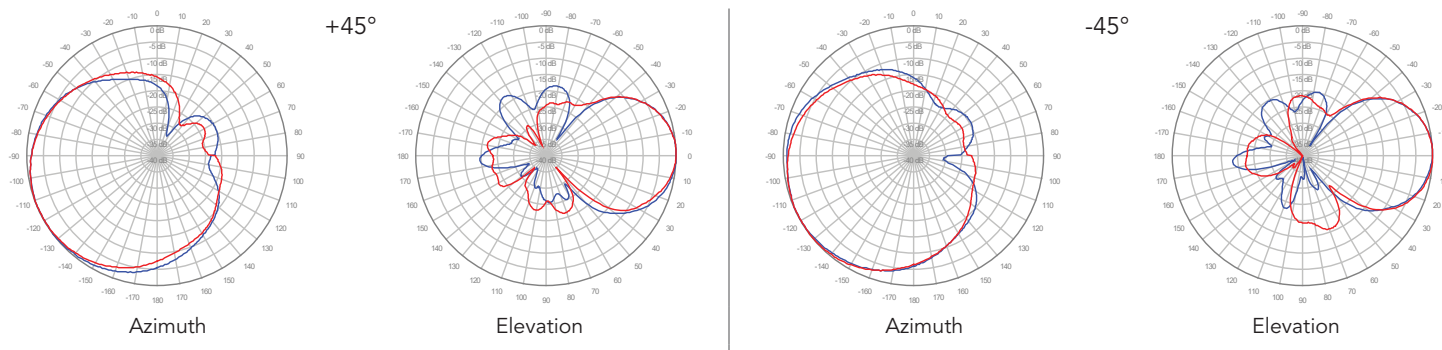
## C2U4MTSP1X06F<sub>xy</sub>s0

750 MHz ————  
850 MHz ————

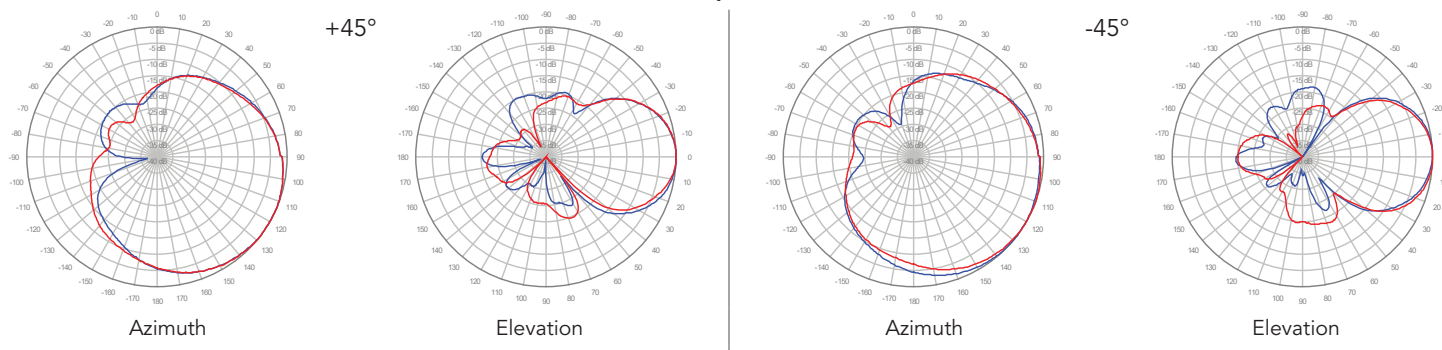
■ R1, 0° TILT



■ R2, 0° TILT



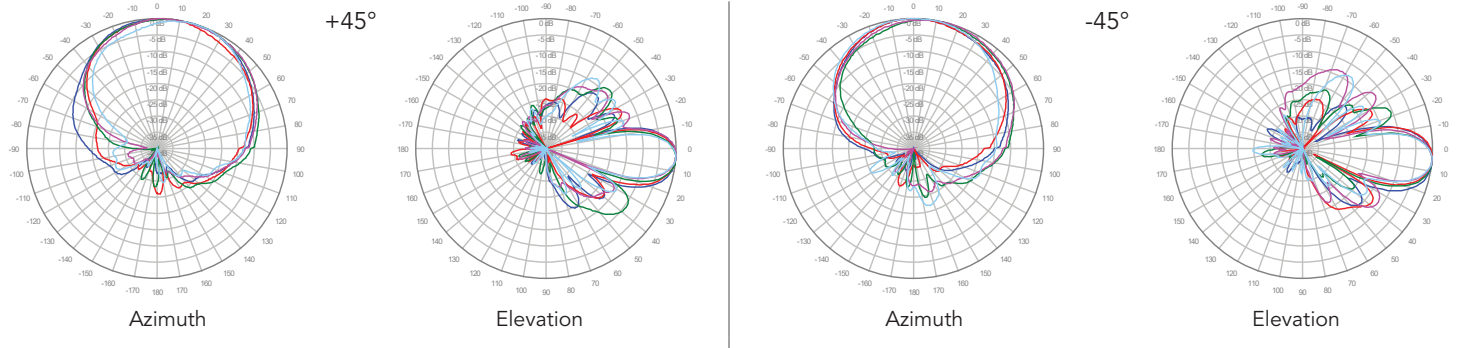
■ R3, 0° TILT



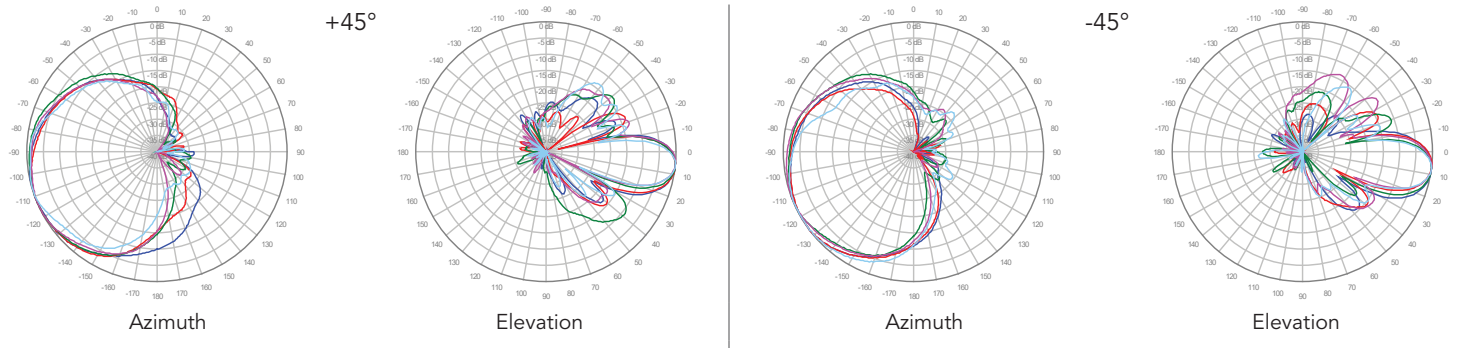
## C2U4MTSP1X06F<sub>xy</sub>s0

1800 MHz —  
1900 MHz —  
2100 MHz —  
2300 MHz —  
2600 MHz —

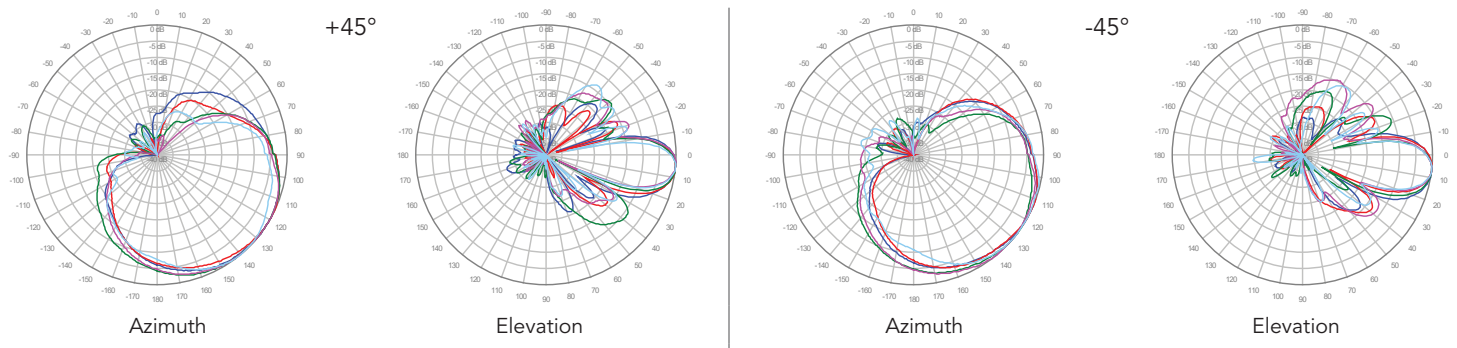
### Y1, 6° TILT



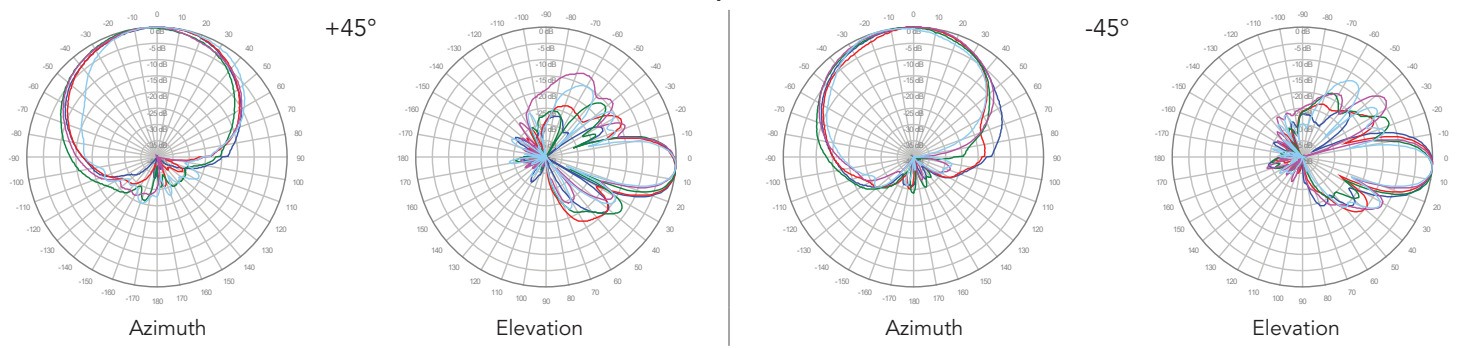
### Y2, 6° TILT



### Y3, 6° TILT



### Y4, 6° TILT

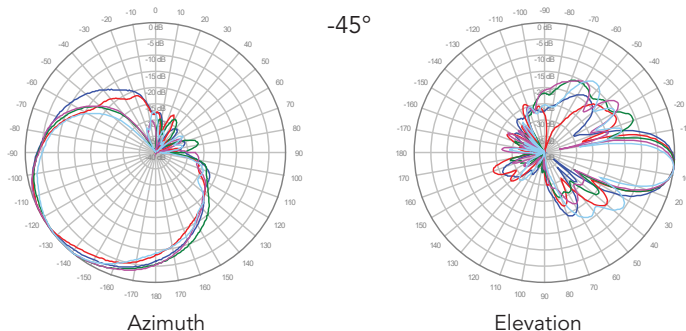
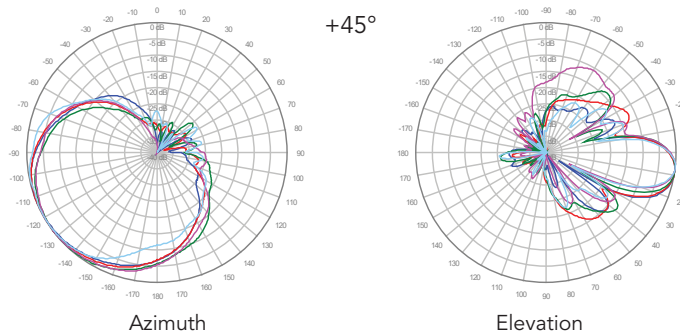


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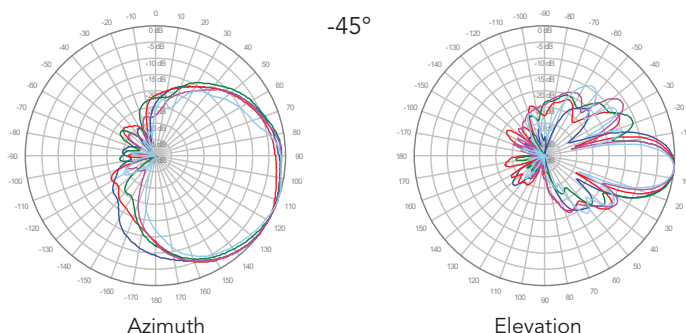
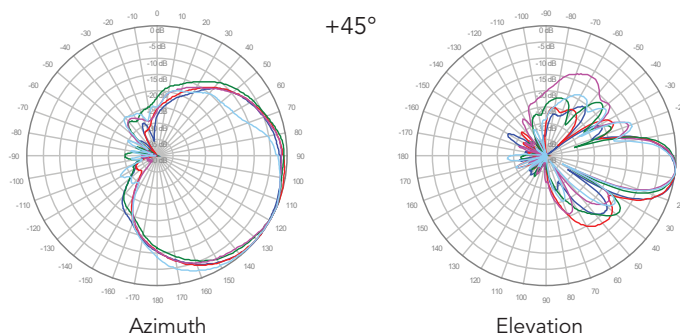
## C2U4MTSP1X06F<sub>xy</sub>s0

1800 MHz —  
1900 MHz —  
2100 MHz —  
2300 MHz —  
2600 MHz —

### Y5, 6° TILT



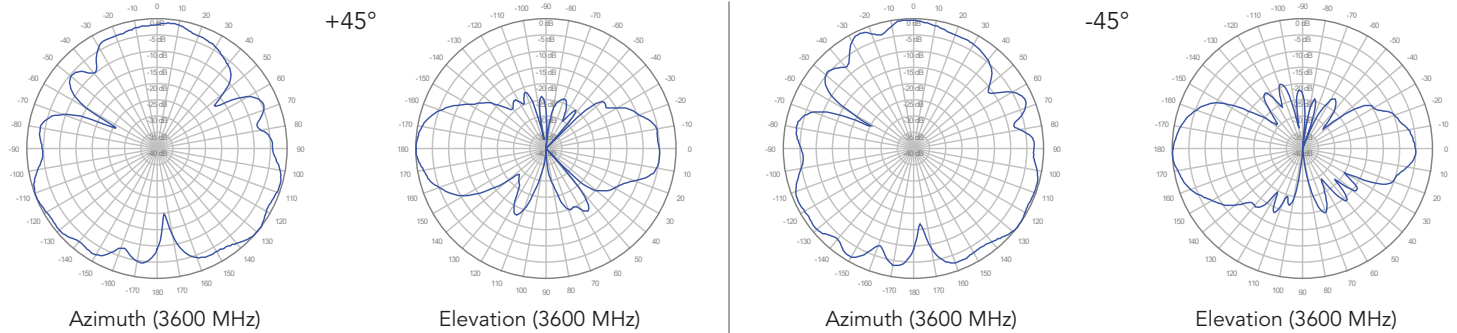
### Y6, 6° TILT



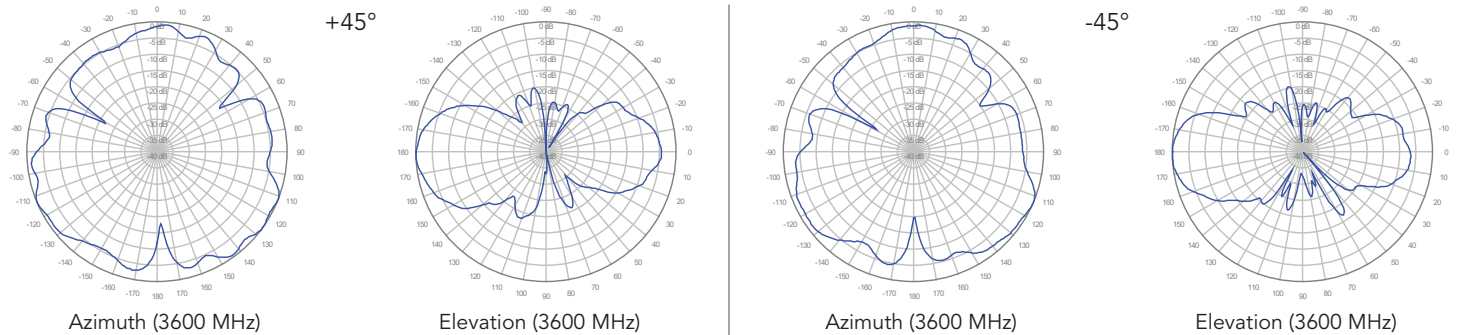


## C2U4MTSP1X06F<sub>xy</sub>s0

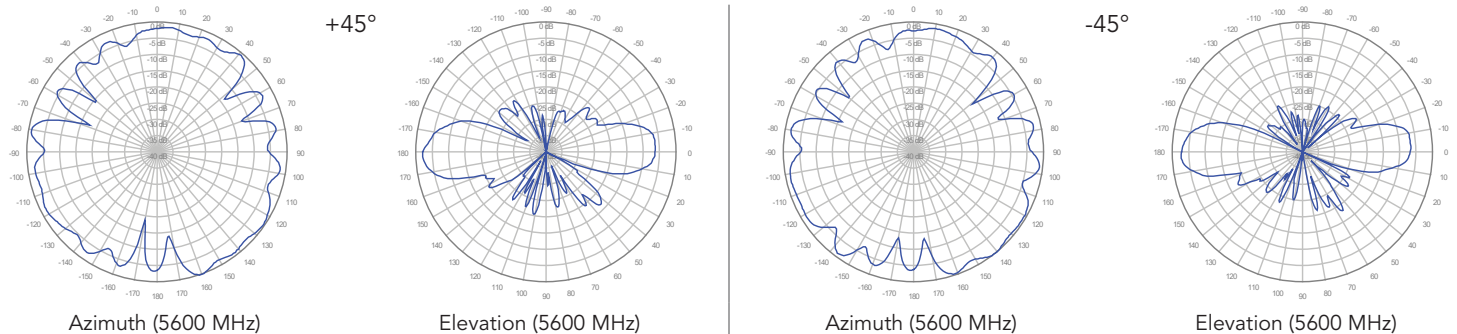
### ■ P1, 0° TILT



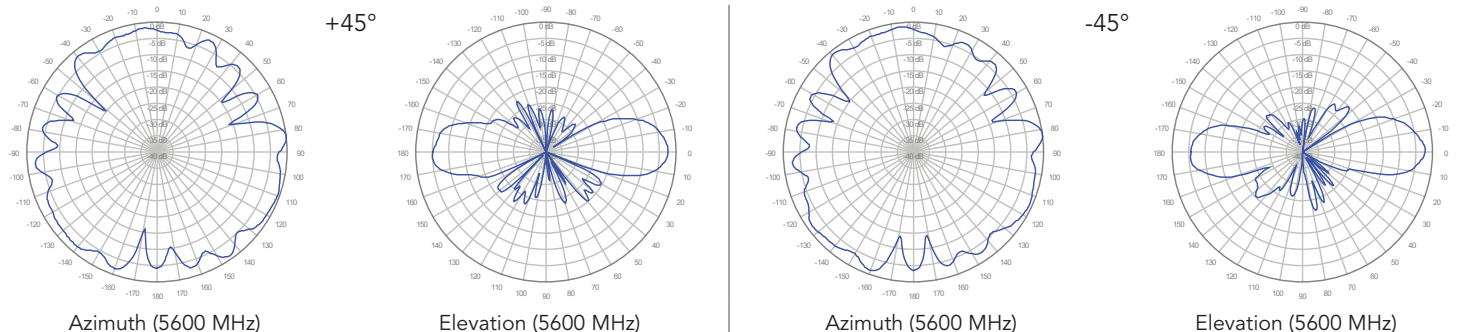
### ■ P2, 0° TILT



### ■ O1, 0° TILT



### ■ O2, 0° TILT



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