

4U4MTSP1X06F_{xys}4

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
- This antenna meets the requirements of the U-NII



PRODUCT OVERVIEW	Frequency Range (MHz)	(4x) 1695-2700		(2x) 3300-4200	(2x) 5150-5925
	Array	<div> <div>Y1</div> <div>Y2</div> <div>Y3</div> <div>Y4</div> <div>Y5</div> <div>Y6</div> </div>	<div> <div>Y7</div> <div>Y8</div> </div>	<div> <div>P1</div> <div>P2</div> </div>	<div> <div>O1</div> <div>O2</div> </div>
	Connector	12 PORTS	4 PORTS	4 PORTS	4 PORTS
	Polarization	XPOL	XPOL	XPOL	XPOL
	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			
	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			

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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) $\pm 45^\circ$			
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	$21.5^\circ \pm 3.0^\circ$	$20.0^\circ \pm 1.5^\circ$	$19.0^\circ \pm 1.8^\circ$	$15.4^\circ \pm 2.2^\circ$
Electrical Downtilt		degrees	(x) $2^\circ, 4^\circ, 6^\circ$			
Impedance		Ohms	50Ω			
VSWR		---	$\leq 1.5:1$			
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) $\pm 45^\circ$	
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	$29.4^\circ \pm 6.7^\circ$	$23.4^\circ \pm 9.9^\circ$
Electrical Downtilt		degrees	(y) 0°	
Impedance		Ohms	50Ω	
VSWR		---	$\leq 1.5:1$	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153	
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	

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ELECTRICAL SPECIFICATIONS

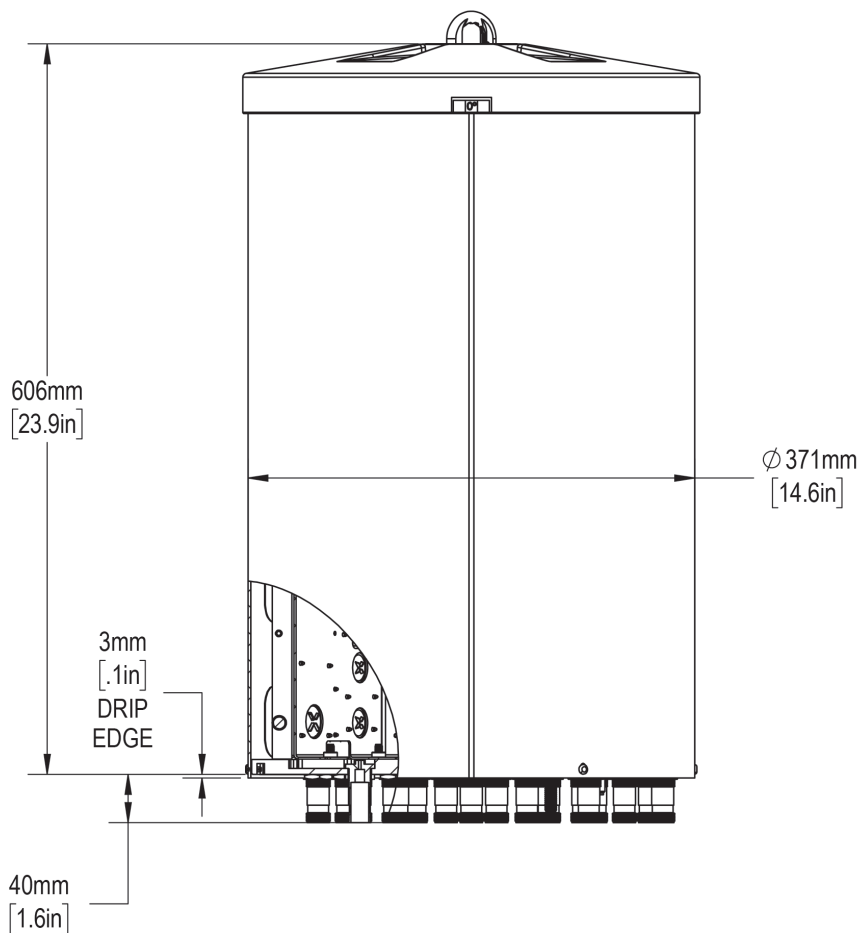
■ O1 ■ O2

Frequency Range		MHz	(2x) 5150-5925
Polarization		---	(2x) $\pm 45^\circ$
Gain	BASTA	dBi	4.9 ± 0.7
	MAX	dBi	5.6
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	$19.8^\circ \pm 2.2^\circ$
Electrical Downtilt		degrees	(y) 0°
Impedance		Ohms	50Ω
VSWR		---	$\leq 1.5:1$
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

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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
	Position	---	Bottom
Radome Color		---	Grey (RAL 7035), Brown (AL 8022), Black (RAL 9011)
Lightning Protection (Grounding Type)		---	Direct Ground

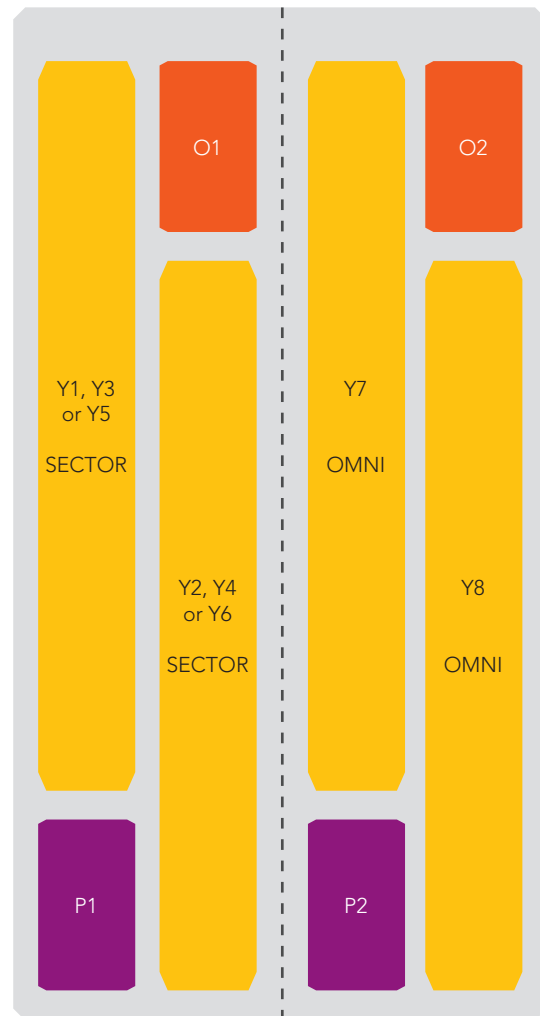


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ARRAY LAYOUT Topology




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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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	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS
4U	4M		T	SP1	X	06	F	xy	s	4	BK BR
(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	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.

ORDERING OPTIONS

Select from the following ordering options

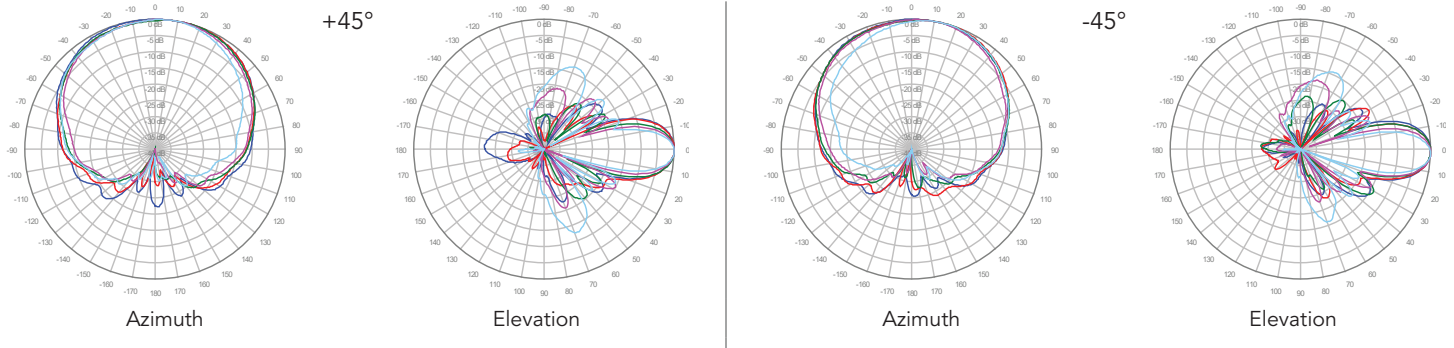
SELECT RADOME COLOR	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND			MODEL NUMBER
	1695-2700 MHz	3300-4200 MHz	5150-5925 MHz	
Grey RAL 7035	2°	0°	0°	4U4MTSP1X06F20s4
	4°	0°	0°	4U4MTSP1X06F40s4
	6°	0°	0°	4U4MTSP1X06F60s4
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4
Brown RAL 8022	2°	0°	0°	4U4MTSP1X06F20s4BR
	4°	0°	0°	4U4MTSP1X06F40s4BR
	6°	0°	0°	4U4MTSP1X06F60s4BR
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4BR
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4BR
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4BR
Black RAL 9011	2°	0°	0°	4U4MTSP1X06F20s4BK
	4°	0°	0°	4U4MTSP1X06F40s4BK
	6°	0°	0°	4U4MTSP1X06F60s4BK
	Y1-Y6=6°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FAAs4BK
	Y1-Y6=4°; Y7-Y8=2°	0°	0°	4U4MTSP1X06FBBs4BK
	Y1-Y6=6°; Y7-Y8=4°	0°	0°	4U4MTSP1X06FCCs4BK

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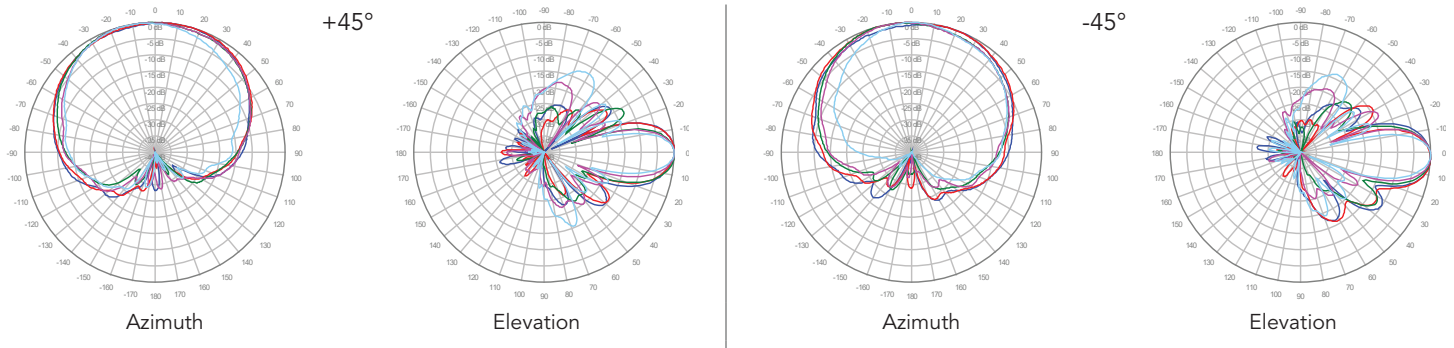
4U4MTSP1X06F_{xy}s4

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

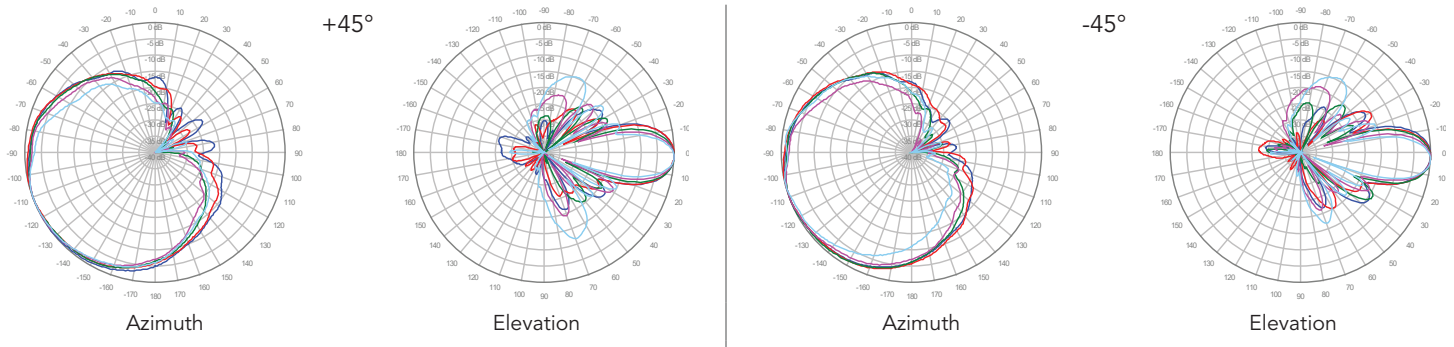
■ Y1, 2° TILT



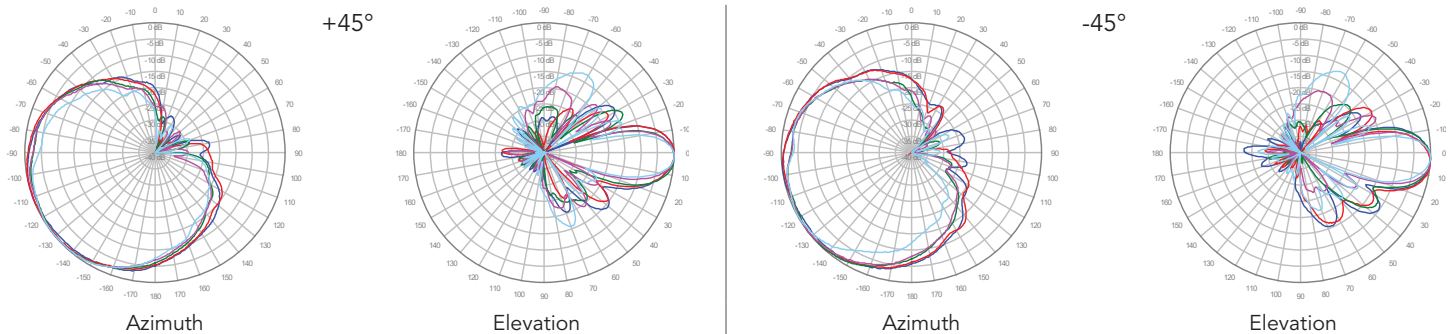
■ Y2, 2° TILT



■ Y3, 2° TILT



■ Y4, 2° TILT

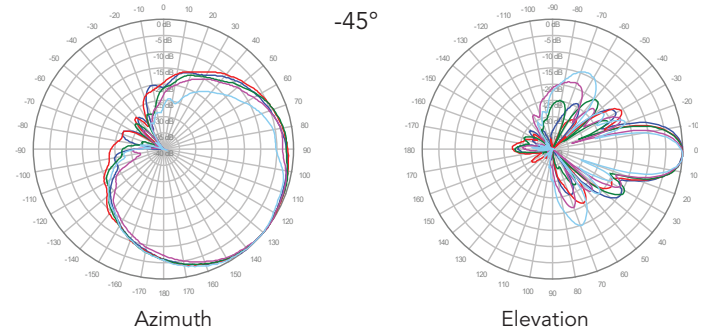
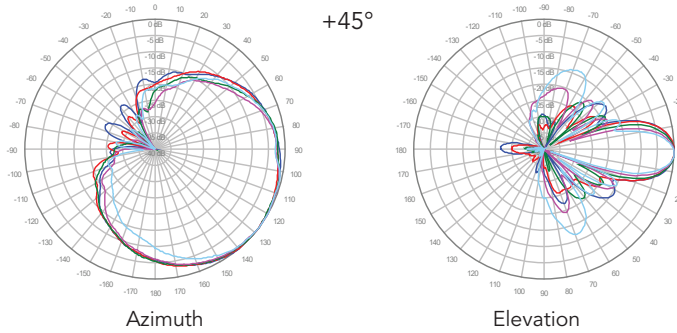


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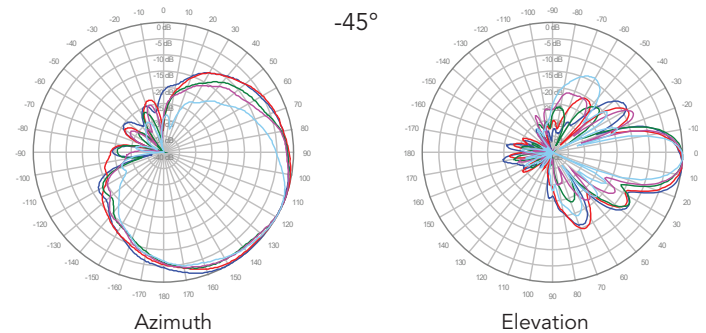
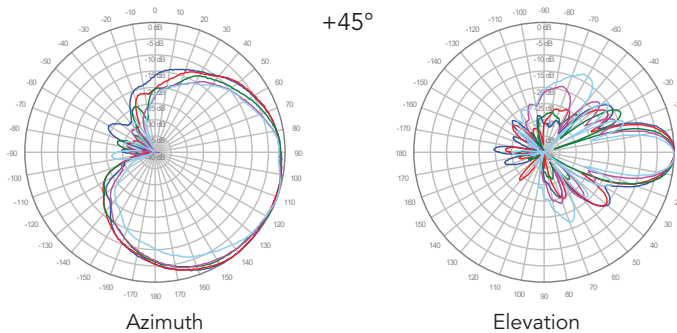
4U4MTSP1X06F_{xy}s4

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

■ Y5, 2° TILT



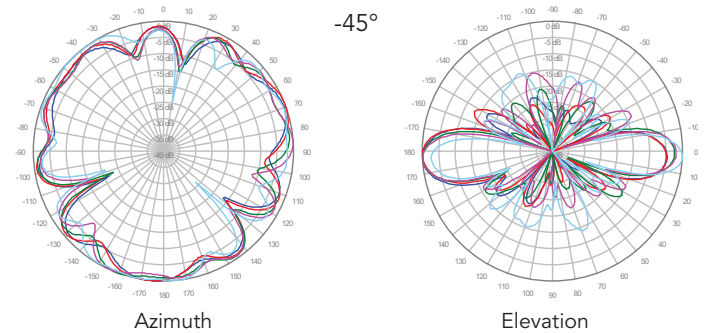
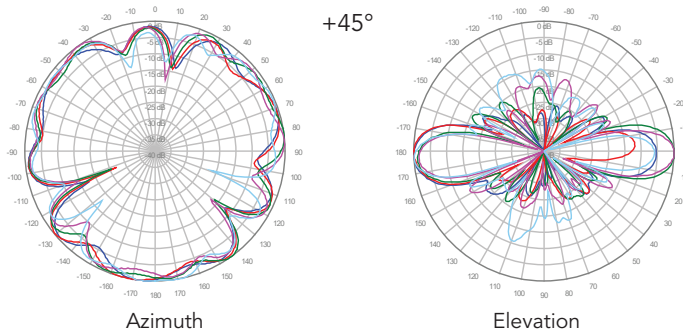
■ Y6, 2° TILT



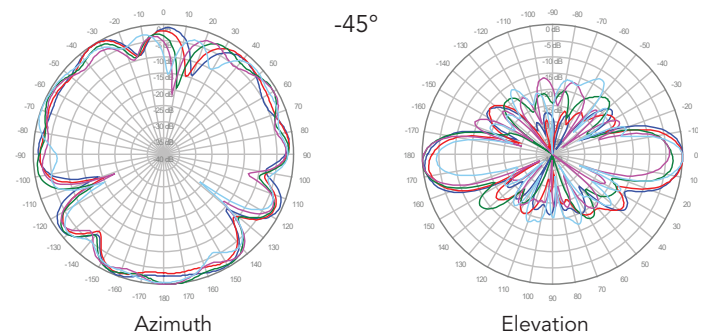
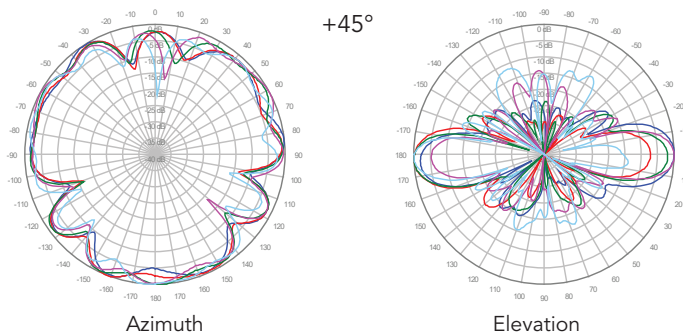
4U4MTSP1X06F_{xy}s4

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

■ Y7, 2° TILT



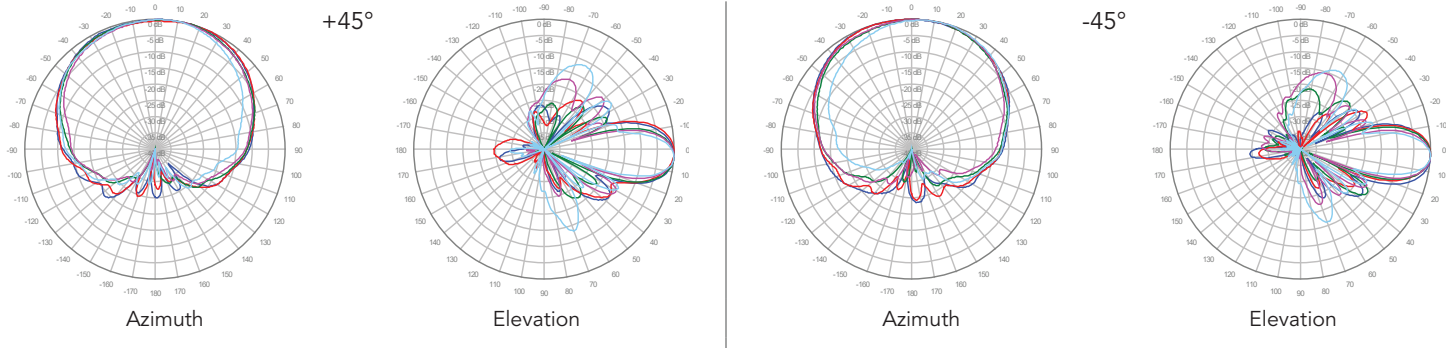
■ Y8, 2° TILT



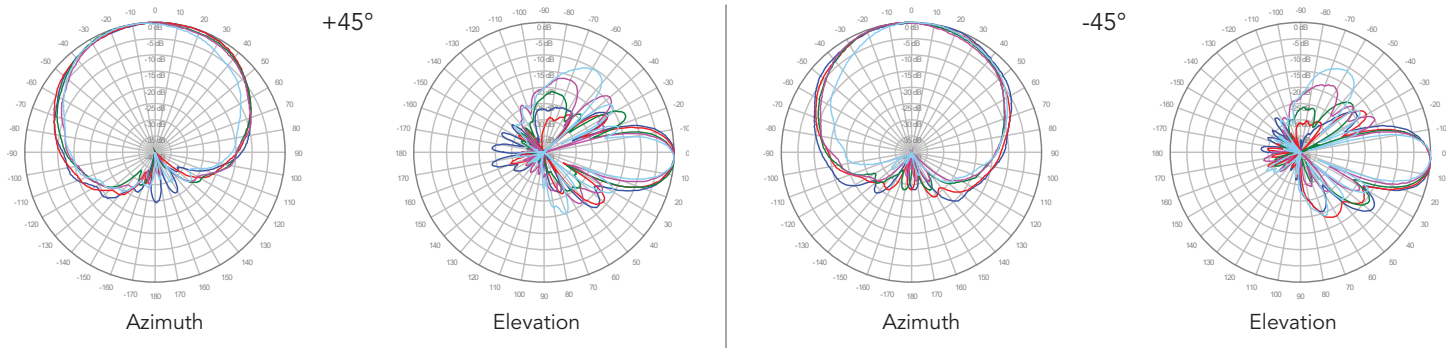
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1800 MHz —
1900 MHz —
2100 MHz —
2300 MHz —
2600 MHz —

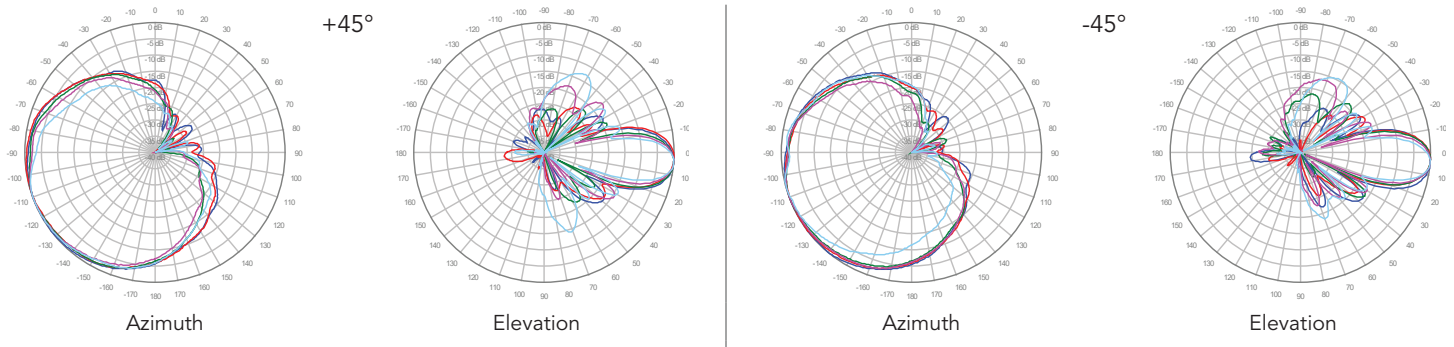
■ Y1, 4° TILT



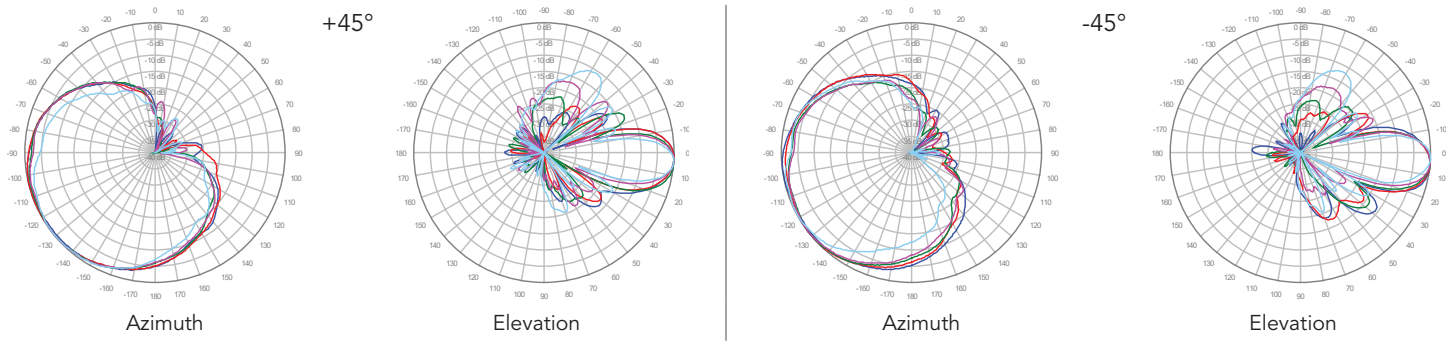
■ Y2, 4° TILT



■ Y3, 4° TILT



■ Y4, 4° TILT

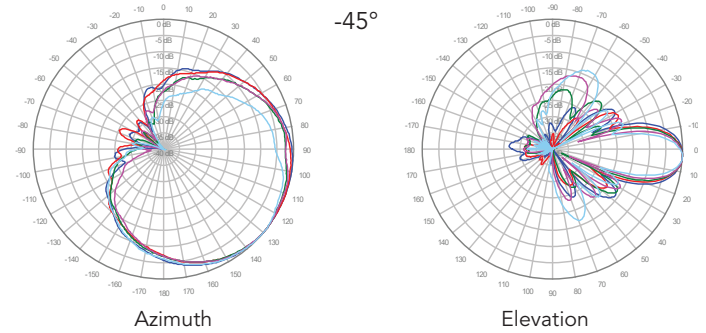
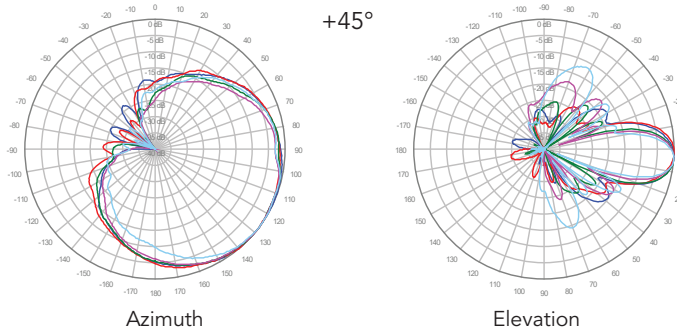


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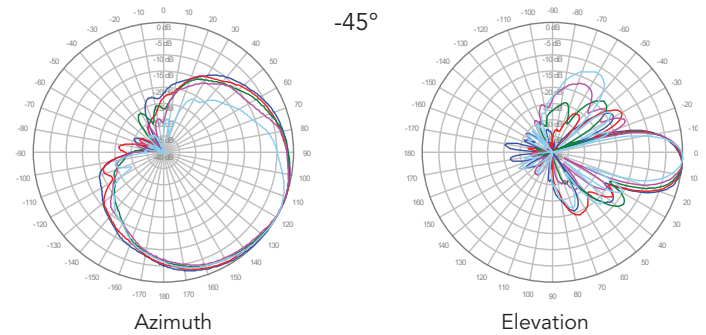
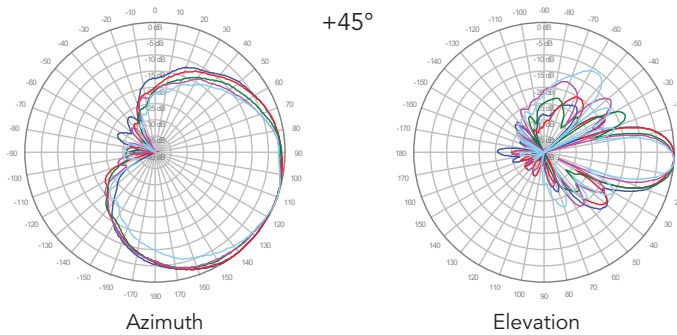
4U4MTSP1X06F_{xy}s4

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

■ Y5, 4° TILT



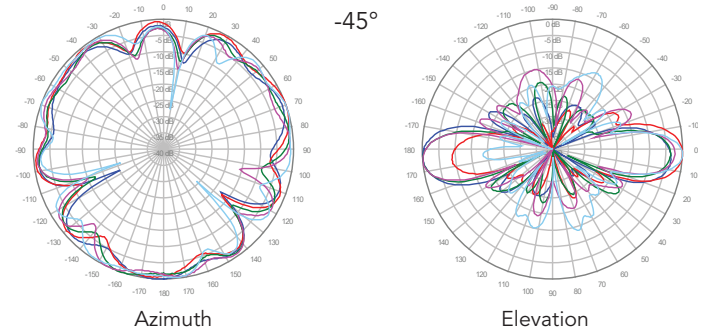
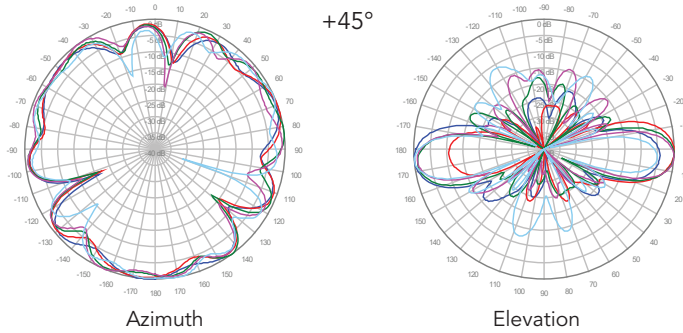
■ Y6, 4° TILT



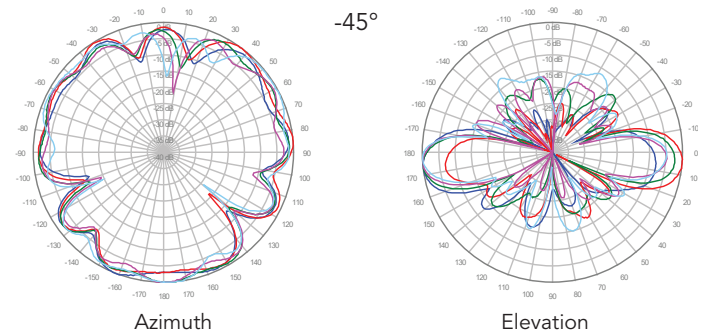
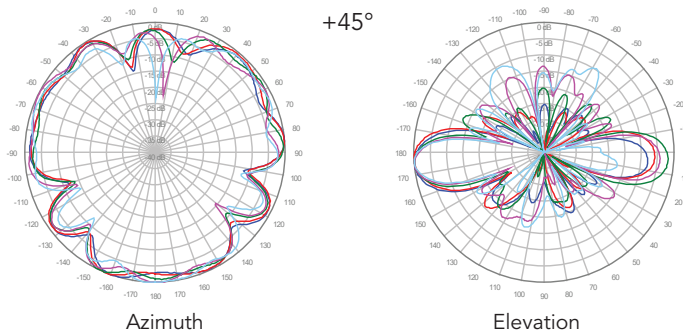
4U4MTSP1X06F_{xy}s4

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

■ Y7, 4° TILT



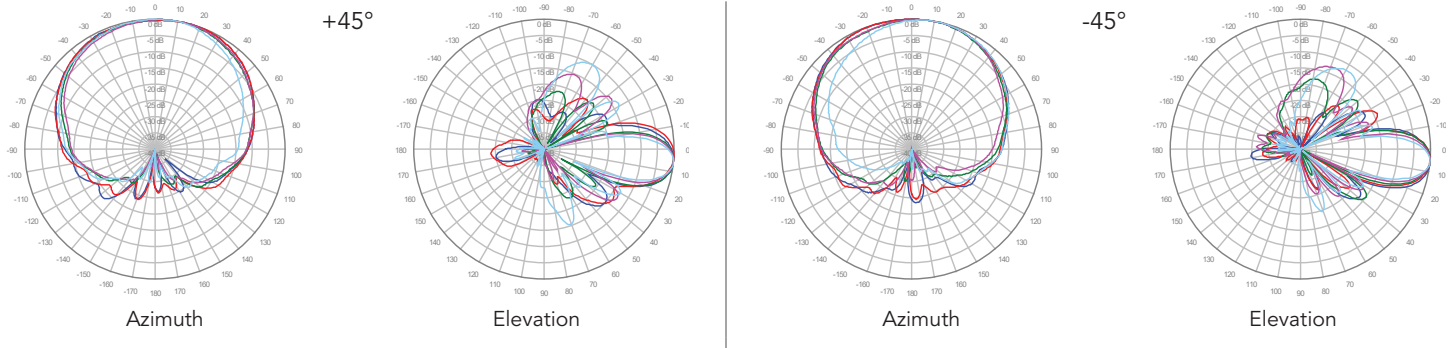
■ Y8, 4° TILT



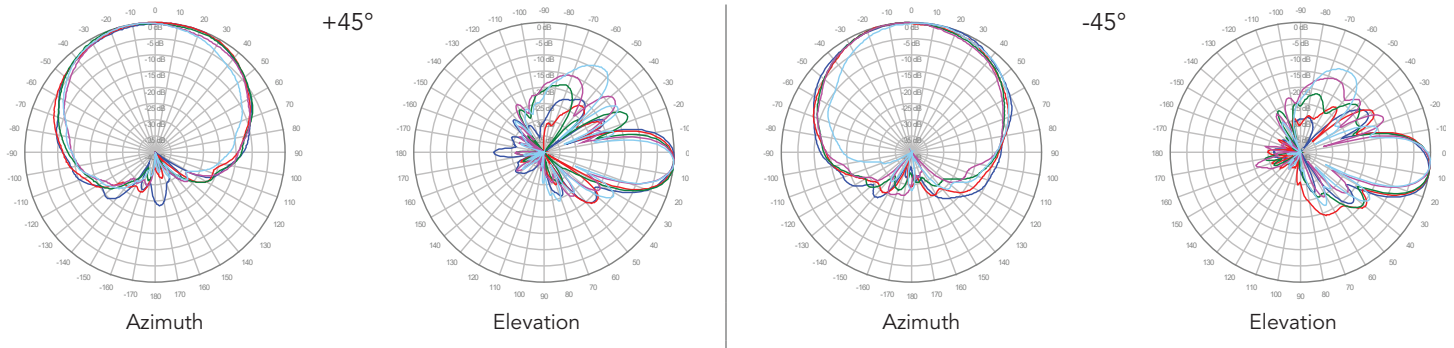
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1800 MHz —
1900 MHz —
2100 MHz —
2300 MHz —
2600 MHz —

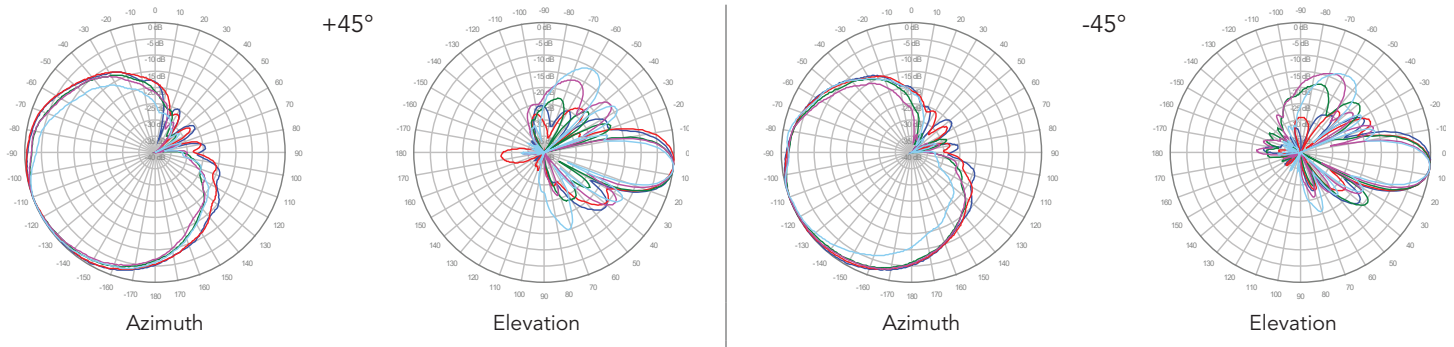
■ Y1, 6° TILT



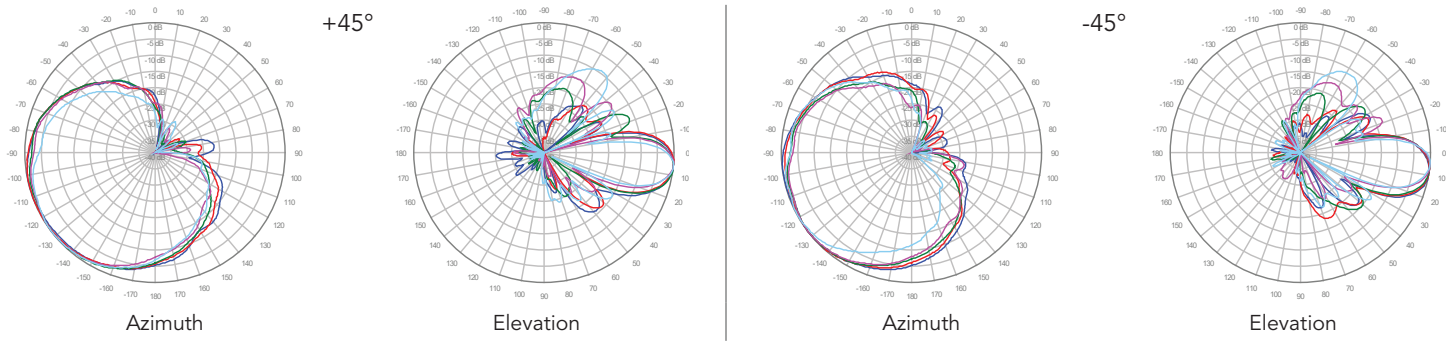
■ Y2, 6° TILT



■ Y3, 6° TILT



■ Y4, 6° TILT

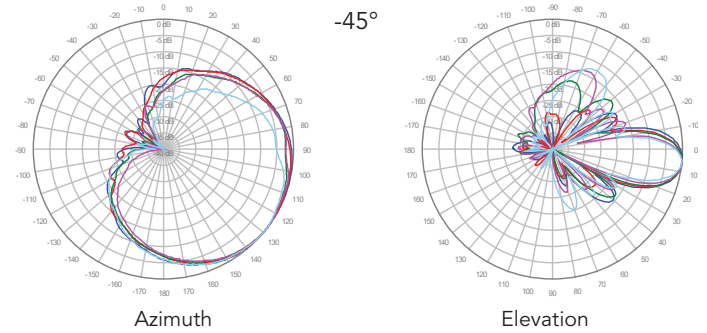
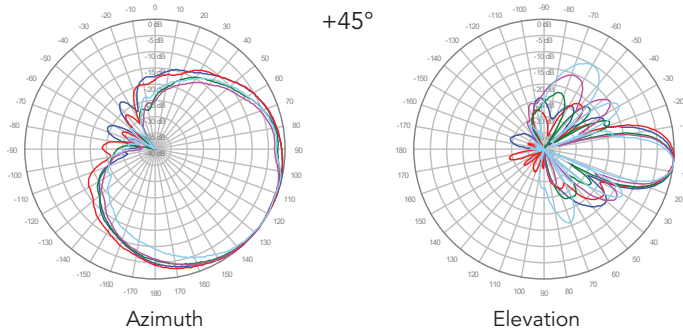


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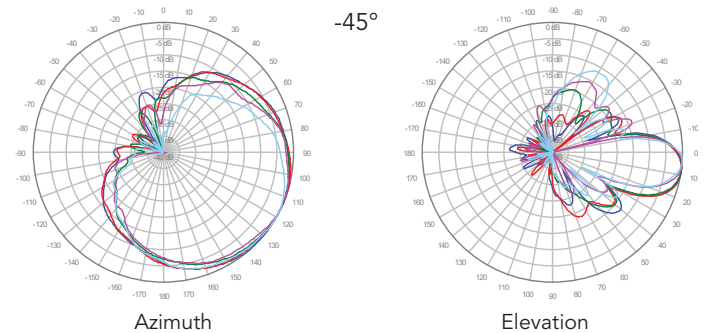
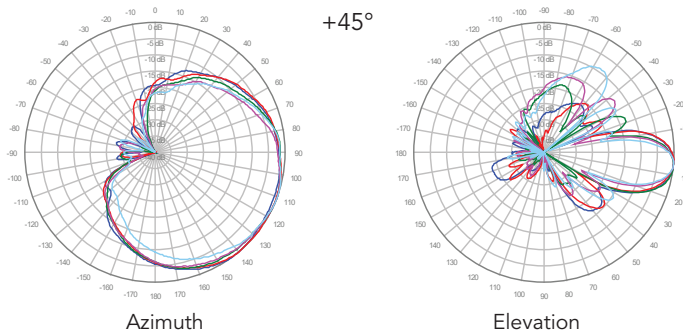
4U4MTSP1X06F_{xy}s4

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

■ Y5, 6° TILT



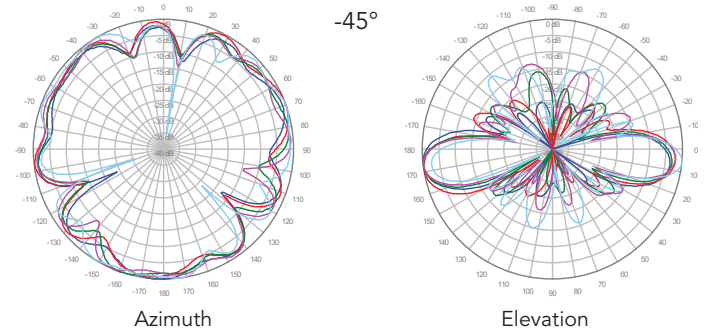
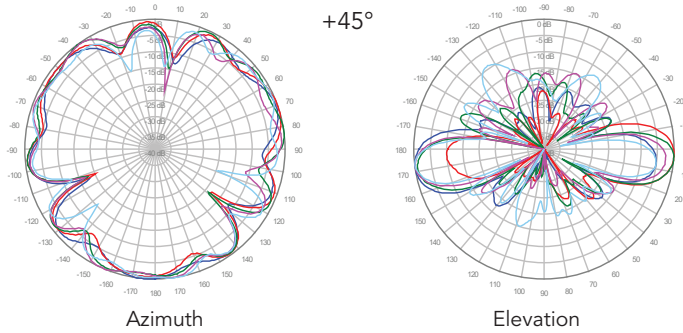
■ Y6, 6° TILT



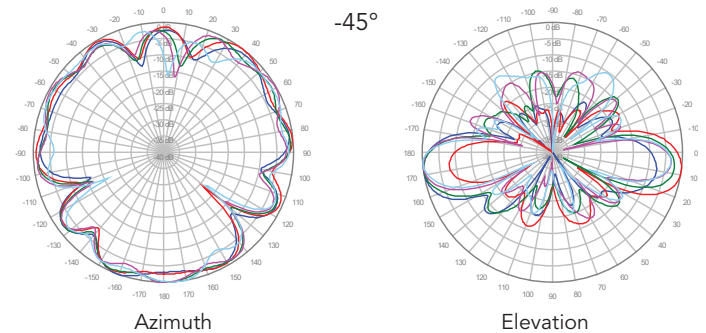
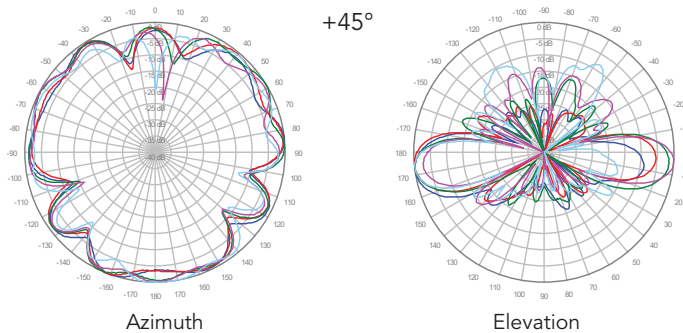
4U4MTSP1X06F_{xy}s4

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

■ Y7, 6° TILT

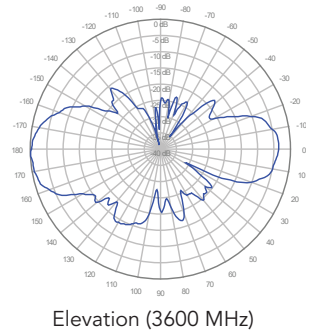
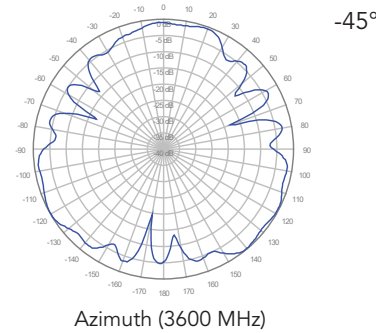
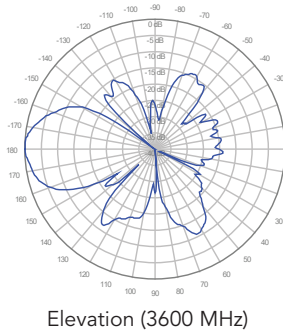
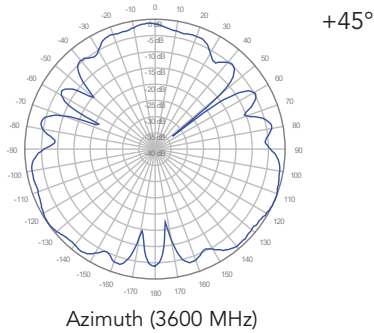


■ Y8, 6° TILT

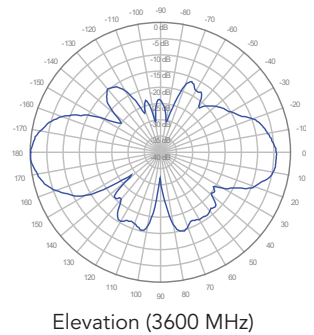
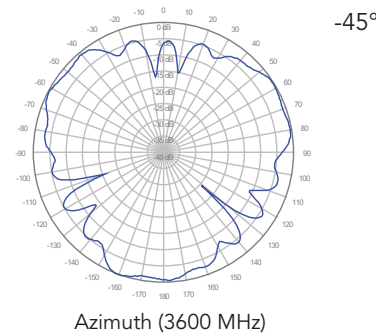
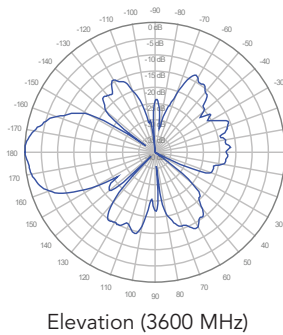
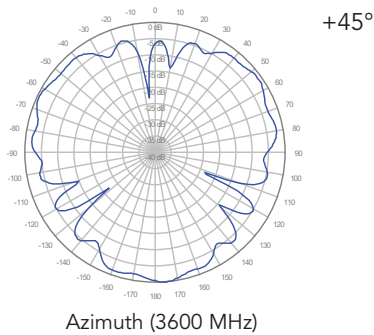


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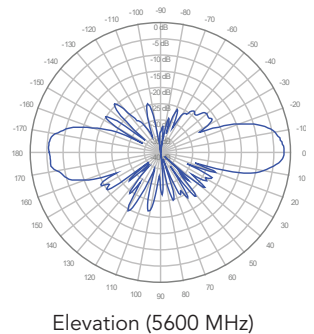
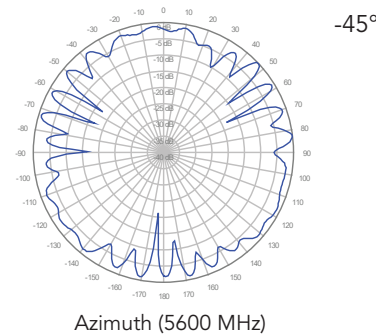
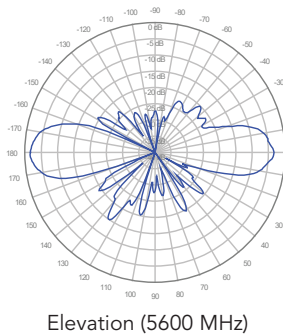
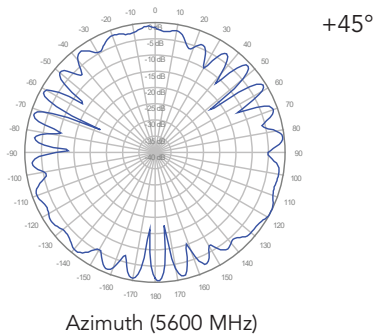
P1, 0° TILT



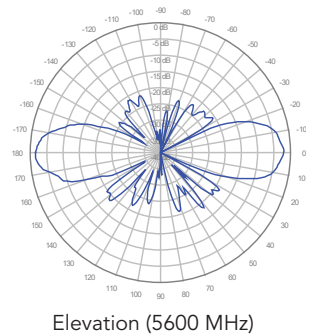
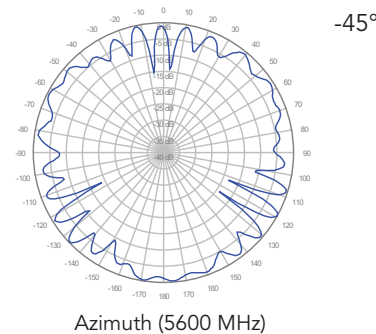
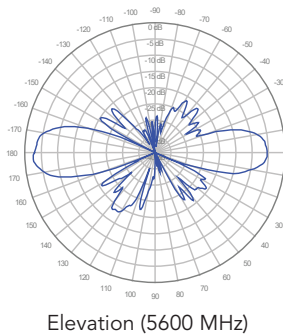
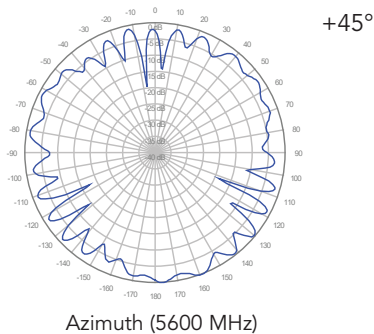
P2, 0° TILT



O1, 0° TILT



O2, 0° TILT



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.