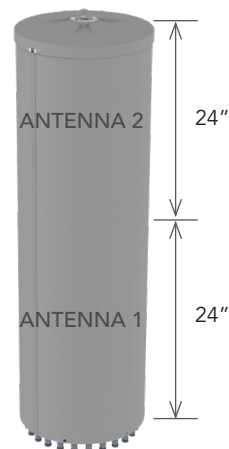


6U4MTSP1X12F_{xys}4

Features

- Sector & omni configuration with 28 connectors
- Dual antennas integrated under a single radome
- Ideal for multi-carrier or 4x4 MIMO deployments
- 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)	(6x) 1695-2700		(2x) 3300-4200	(2x) 5150-5925
	Array	<div>■ Y1 ■ Y2 ■ Y3</div> <div>■ Y4 ■ Y5 ■ Y6</div>	<div>■ Y7 ■ Y8</div> <div>■ Y9 ■ Y10</div>	<div>■ P1 ■ P2</div>	<div>■ O1 ■ O2</div>
	Connector	12 PORTS	8 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)	6600 WATTS			
	Connector Type	(28x) 4.3-10 FEMALE CONNECTORS			
	Dimensions	1205 x Ø371 mm (47.4 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	12.9 ± 0.6	13.4 ± 0.3	13.6 ± 0.4	14.1 ± 0.7
	MAX	dBi	13.4	13.3	13.7	14.7
Azimuth Beamwidth (3 dB)		degrees	84.0° ± 8.2°	79.2° ± 5.5°	75.6° ± 6.4°	66.7° ± 6.5°
Elevation Beamwidth (3 dB)		degrees	23.1° ± 1.7°	21.6° ± 0.9°	20.4° ± 1.9°	16.9° ± 1.2°
Electrical Downtilt		degrees	(x) 2°, 4°, 6°			
Impedance		Ohms	50Ω			
VSWR		---	≤ 1.5:1			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153			
Front-to-Back Ratio		dB	> 21	> 22	> 24	> 24
Upper Sidelobe Suppression		dB	> 14	> 14	> 14	> 14
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

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6U4MTSP1X12F_{xy}s4

ELECTRICAL SPECIFICATIONS Omni

■ Y7 ■ Y8 ■ Y9 ■ Y10

Frequency Range		MHz	(2x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(2x) $\pm 45^\circ$			
Gain	BASTA	dBi	8.3 ± 0.8	9.0 ± 0.5	9.1 ± 0.5	9.0 ± 0.9
	MAX	dBi	9.1	9.5	9.6	9.9
Azimuth Beamwidth (3 dB)		degrees	360°	360°	360°	360°
Elevation Beamwidth (3 dB)		degrees	$23.1^\circ \pm 1.7^\circ$	$21.6^\circ \pm 0.9^\circ$	$20.4^\circ \pm 1.9^\circ$	$16.9^\circ \pm 1.2^\circ$
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	> 14	> 14	> 14	> 14
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28			

ELECTRICAL SPECIFICATIONS

■ P1 ■ P2

Frequency Range		MHz	(2x) 3300-4200	
Polarization		---	(2x) $\pm 45^\circ$	
Gain	BASTA	dBi	5.5 ± 0.6	
	MAX	dBi	6.1	
Azimuth Beamwidth (3 dB)		degrees	360°	
Elevation Beamwidth (3 dB)		degrees	$32.6 \pm 4.1^\circ$	
Electrical Downtilt		degrees	(y) 0°	
Impedance		Ohms	50Ω	
VSWR		---	$\leq 1.5:1$	
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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6U4MTSP1X12F_{xy}s4

ELECTRICAL SPECIFICATIONS

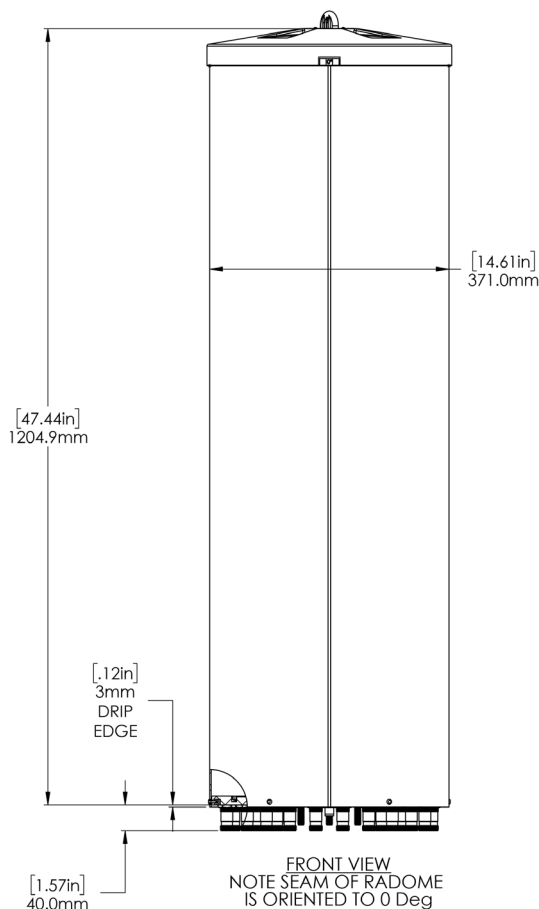
■ O1 ■ O2

Frequency Range		MHz	(2x) 5150-5925
Polarization		---	(2x) $\pm 45^\circ$
Gain	BASTA	dBi	5.1 ± 0.7
	MAX	dBi	5.8
Azimuth Beamwidth (3 dB)		degrees	360°
Elevation Beamwidth (3 dB)		degrees	$22.0^\circ \pm 1.6^\circ$
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	> 20
Isolation	Intraband	dB	> 25
	Interband	dB	> 28
U-NII Compliant		---	Yes

6U4MTSP1X12F_{xy}s4

MECHANICAL SPECIFICATIONS

Height		mm (in)	1205 (47.4)
Diameter		mm (in)	371 (14.6)
Net Weight - Antenna Only		kg (lbs)	20 (44)
Windload	Calculation	km/h (mph)	160 (100)
	Frontal	N (lbf)	391 (88)
Survival Wind Speed		km/h (mph)	241 (150)
Wind Area		m ² (ft ²)	0.47 (5.0)
Volume	Total	m ³ (ft ³)	0.13 (4.7)
	Each Antenna	m ³ (ft ³)	0.065 (2.33)
Connector	Type & Quantity	---	(28x) 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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6U4MTSP1X12F_{xy}s4

ARRAY LAYOUT Topology

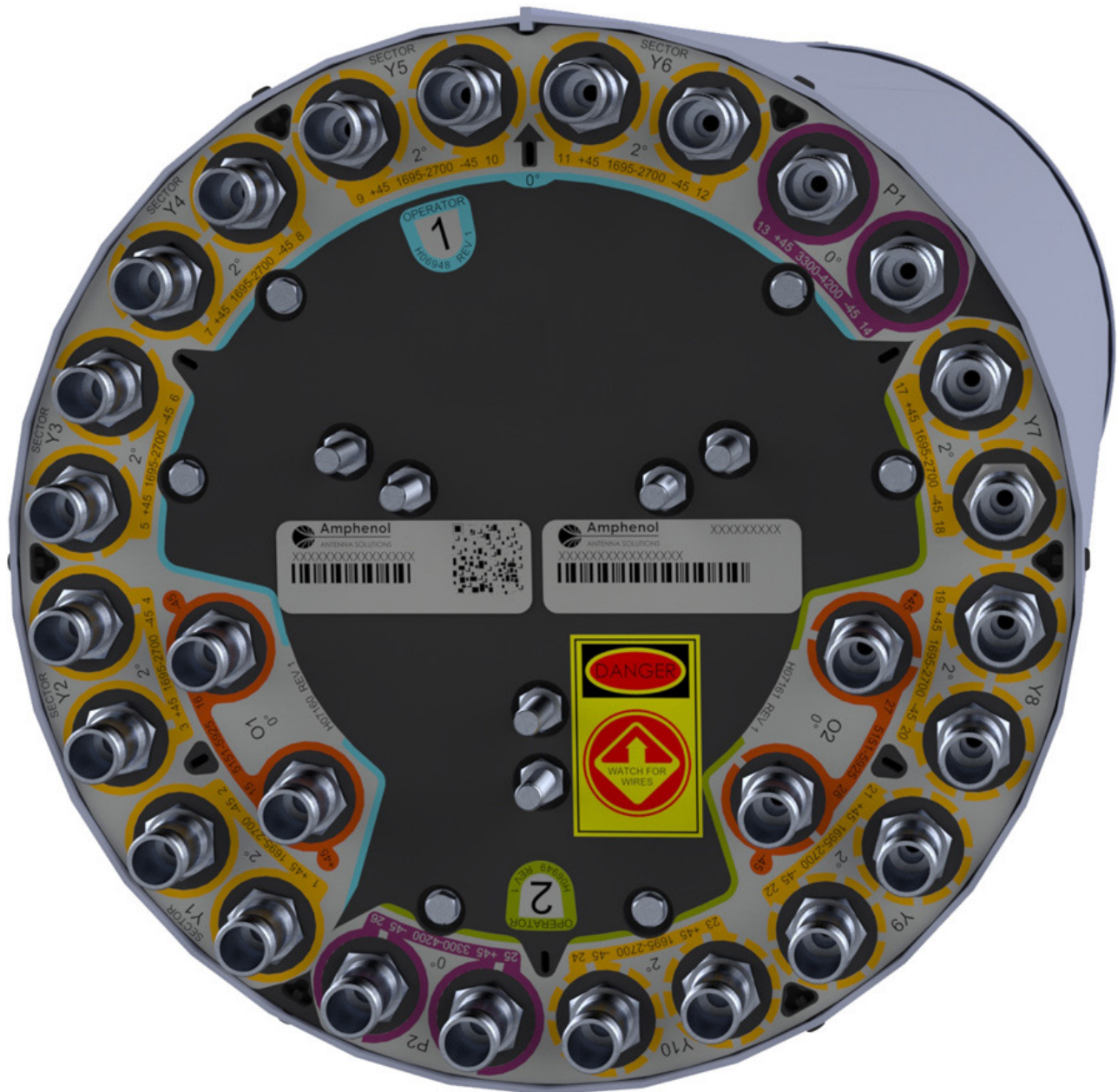
FREQUENCY	ARRAY	CONNECTOR	CONNECTOR TYPE
1695-2700 MHz	■ Y1	1-2	(2x) 4.3-10 Female
1695-2700 MHz	■ Y2	3-4	(2x) 4.3-10 Female
1695-2700 MHz	■ Y3	5-6	(2x) 4.3-10 Female
1695-2700 MHz	■ Y4	7-8	(2x) 4.3-10 Female
1695-2700 MHz	■ Y5	9-10	(2x) 4.3-10 Female
1695-2700 MHz	■ Y6	11-12	(2x) 4.3-10 Female
1695-2700 MHz	■ Y7	17-18	(2x) 4.3-10 Female
1695-2700 MHz	■ Y8	19-20	(2x) 4.3-10 Female
1695-2700 MHz	■ Y9	21-22	(2x) 4.3-10 Female
1695-2700 MHz	■ Y10	23-24	(2x) 4.3-10 Female
3550-3700 MHz	■ P1	13-14	(2x) 4.3-10 Female
3550-3700 MHz	■ P2	25-26	(2x) 4.3-10 Female
5150-5925 MHz	■ O1	15-16	(2x) 4.3-10 Female
5150-5925 MHz	■ O2	27-28	(2x) 4.3-10 Female



The illustration is not shown to scale.

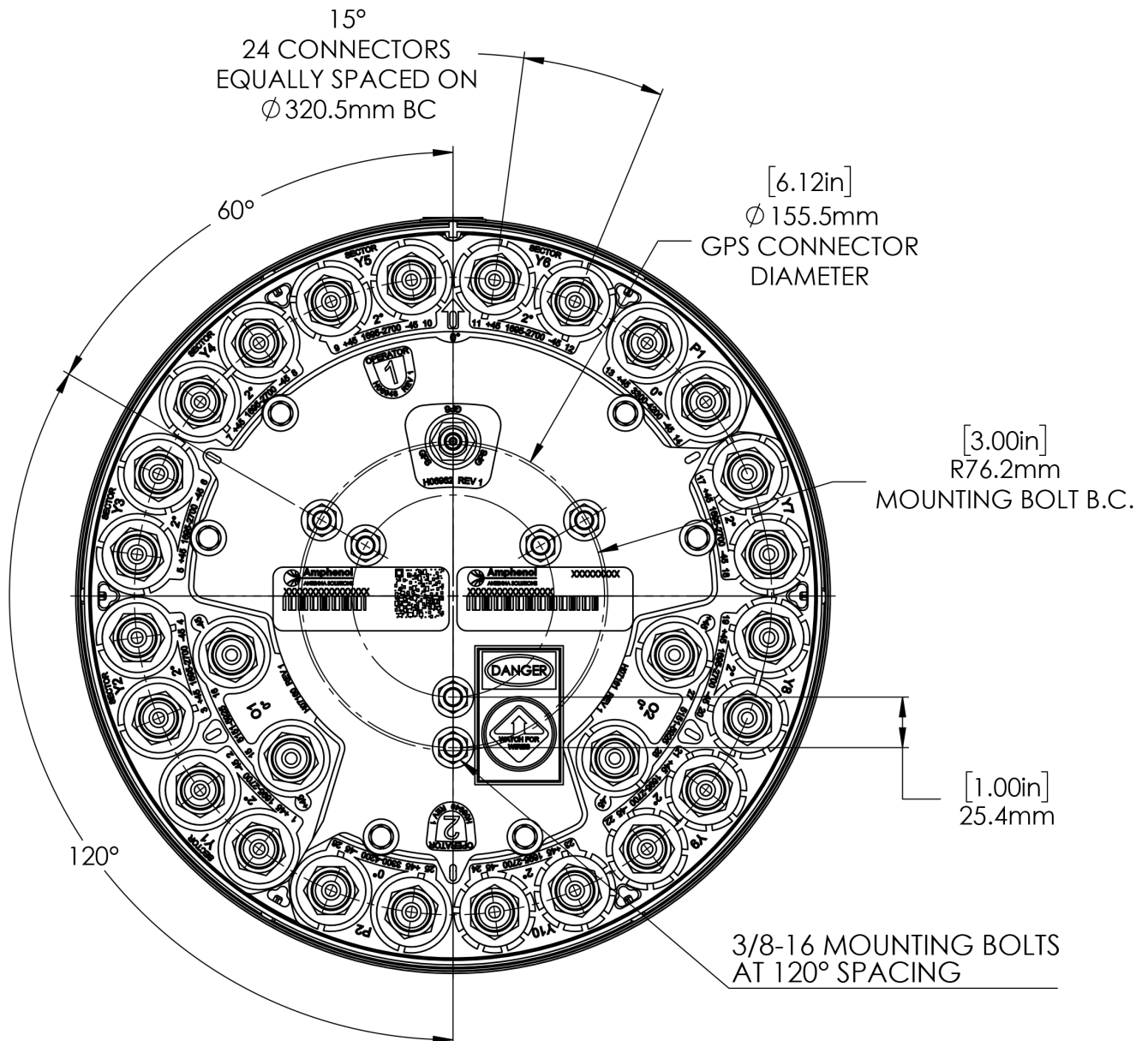
6U4MTSP1X12F_{xy}s4

BOTTOM VIEW - LABELING



6U4MTSP1X12F_{xy}s4

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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6U4MTSP1X12F_{xy}s4

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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6U4MTSP1X12F_{xy}s₄

HOW TO READ THE MODEL NUMBER

Each letter and number has meaning.

NUMBER OF BANDS & OPERATING FREQUENCY			PATTERN TYPE	AZIMUTH BEAMWIDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS	
6U			4M	T	SP1	X	12	F	xy	s	4	BK BR
(6x) 1695-2700	(2x) 3300-4200	(2x) 5150-5925	Tri-Sector	Sector and Pseudo Omni Combination	XPOL	1.2 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

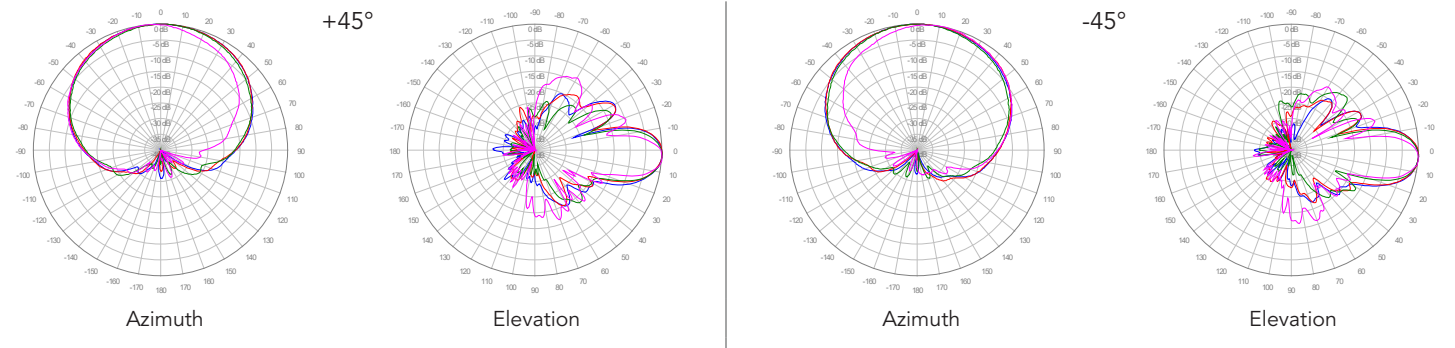
SELECT RADOME COLOR	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND			MODEL NUMBER
	1695-2700 MHz	3300-4200 MHz	5150-5925 MHz	
Grey RAL 7035	2°	0°	0°	6U4MTSP1X12F20s ₄
	4°	0°	0°	6U4MTSP1X12F40s ₄
	6°	0°	0°	6U4MTSP1X12F60s ₄
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs ₄
	Y1-Y6=4°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FBBs ₄
	Y1-Y6=6°; Y7-Y10=4°	0°	0°	6U4MTSP1X12FCCs ₄
Brown RAL 8022	2°	0°	0°	6U4MTSP1X12F20s ₄ BR
	4°	0°	0°	6U4MTSP1X12F40s ₄ BR
	6°	0°	0°	6U4MTSP1X12F60s ₄ BR
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs ₄ BR
	Y1-Y6=4°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FBBs ₄ BR
	Y1-Y6=6°; Y7-Y10=4°	0°	0°	6U4MTSP1X12FCCs ₄ BR
Black RAL 9011	2°	0°	0°	6U4MTSP1X12F20s ₄ BK
	4°	0°	0°	6U4MTSP1X12F40s ₄ BK
	6°	0°	0°	6U4MTSP1X12F60s ₄ BK
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs ₄ BK
	Y1-Y6=4°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FBBs ₄ BK
	Y1-Y6=6°; Y7-Y10=4°	0°	0°	6U4MTSP1X12FCCs ₄ BK

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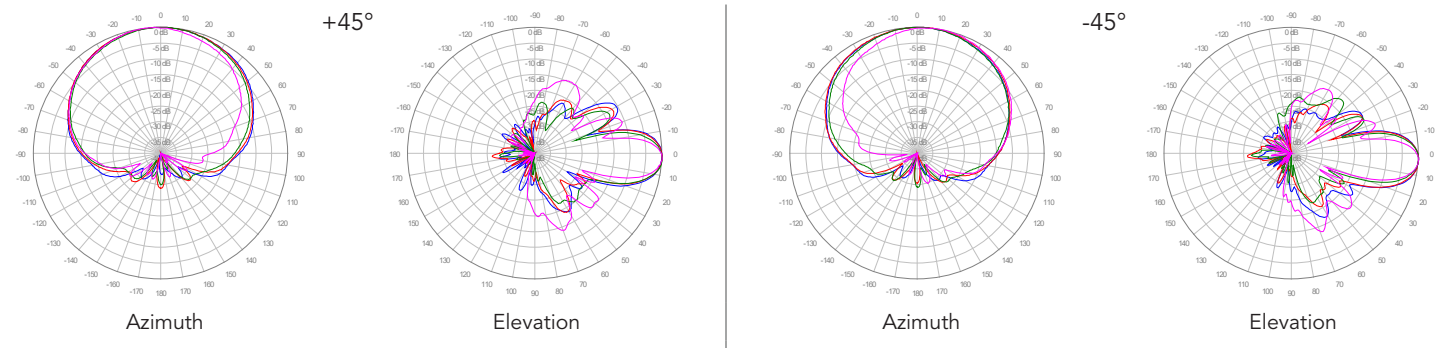
6U4MTSP1X12F_{xy}s4

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

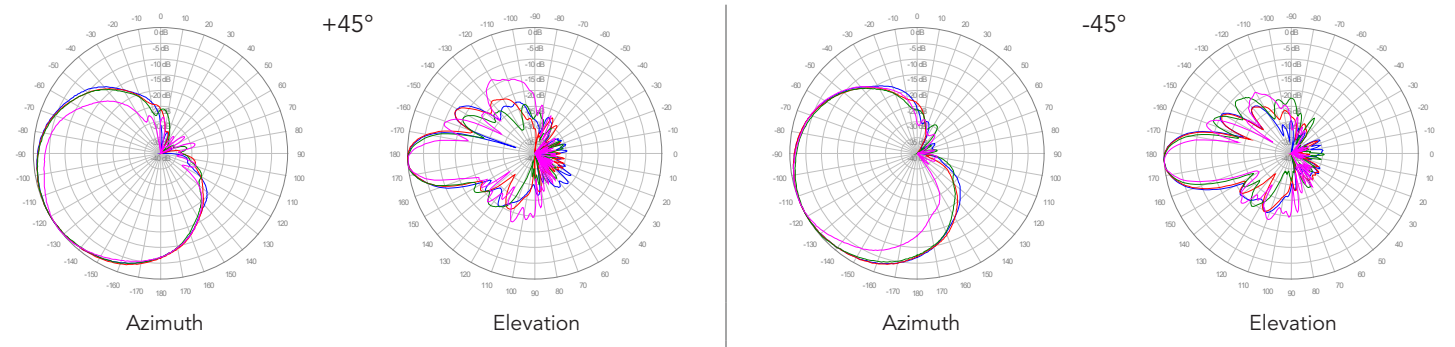
■ Y1, 2° TILT



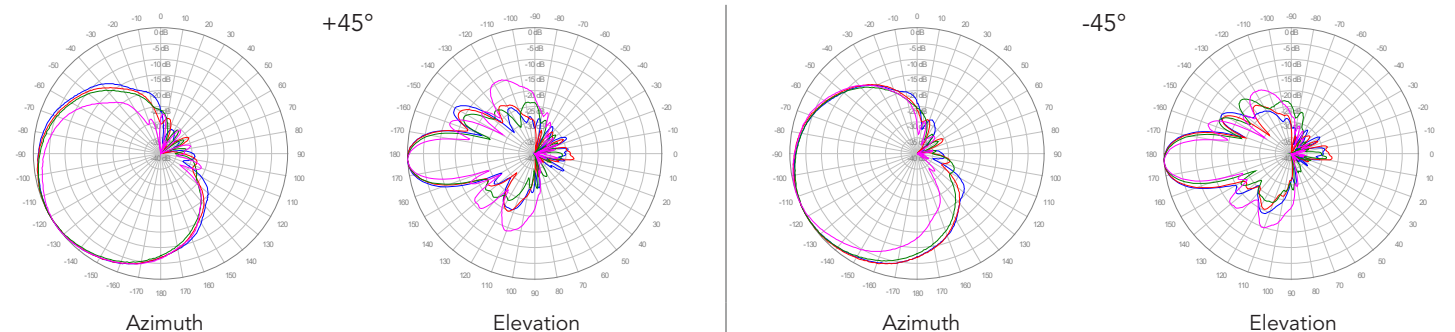
■ Y2, 2° TILT



■ Y3, 2° TILT



■ Y4, 2° TILT

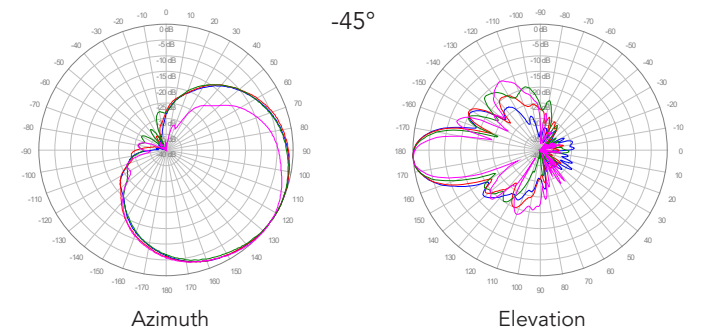
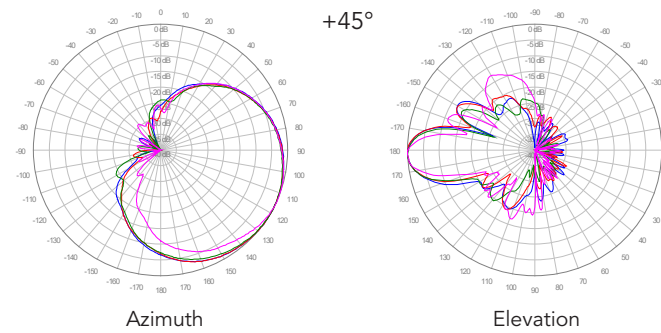


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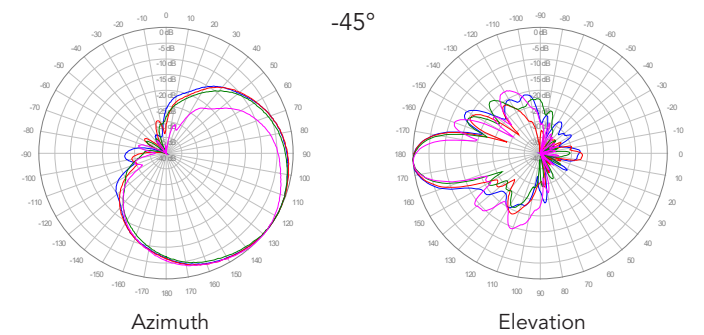
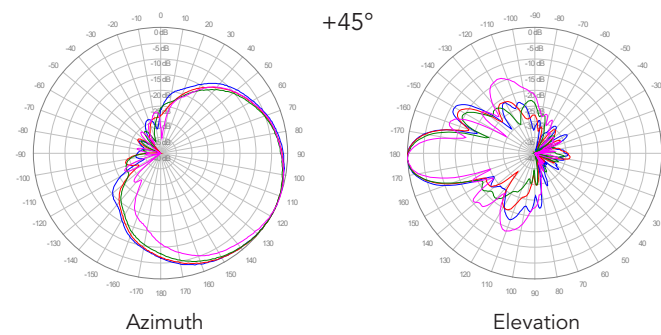
6U4MTSP1X12F_{xy}s4

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

■ Y5, 2° TILT



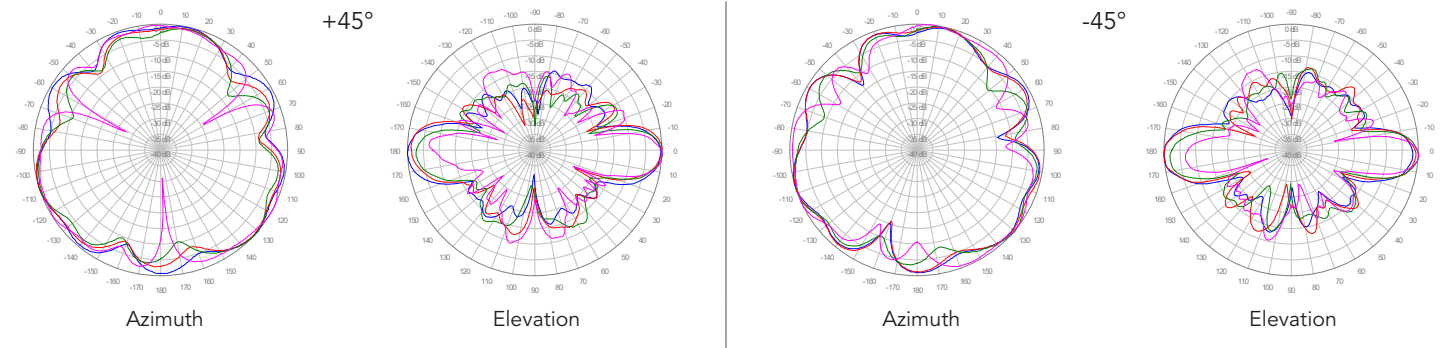
■ Y6, 2° TILT



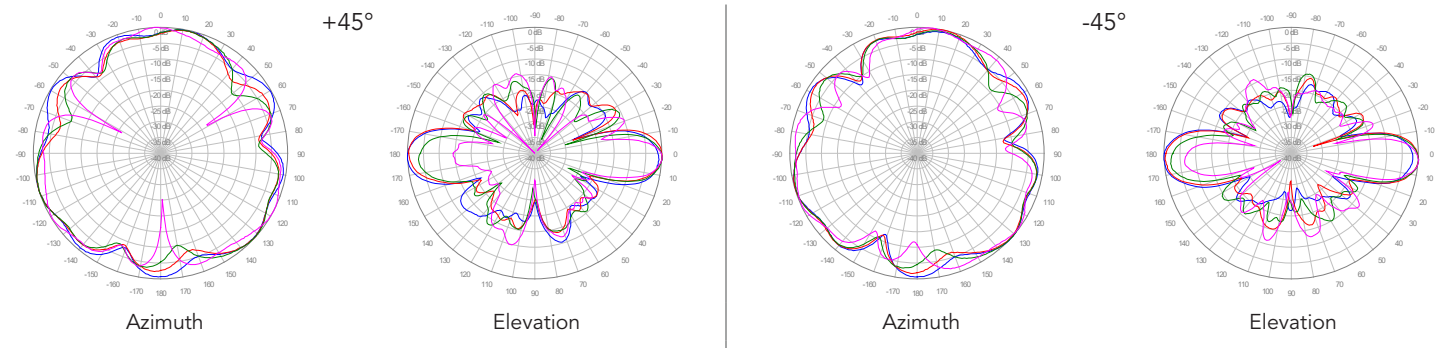
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1800 MHz —
1900 MHz —
2100 MHz —
2600 MHz —

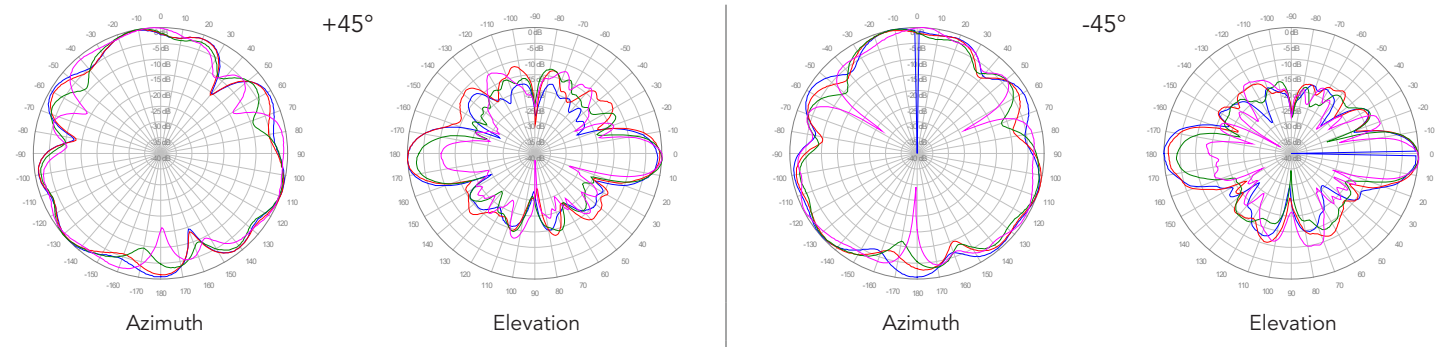
■ Y7, 2° TILT



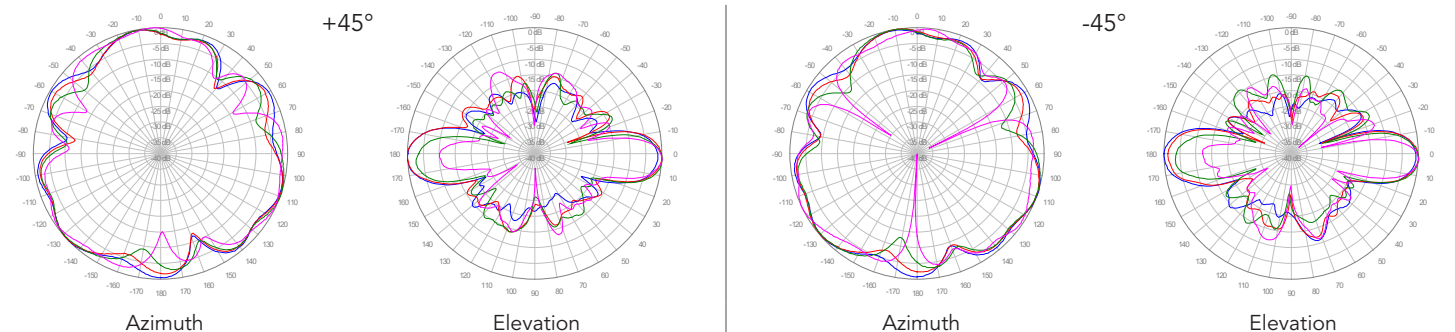
■ Y8, 2° TILT



■ Y9, 2° TILT



■ Y10, 2° TILT

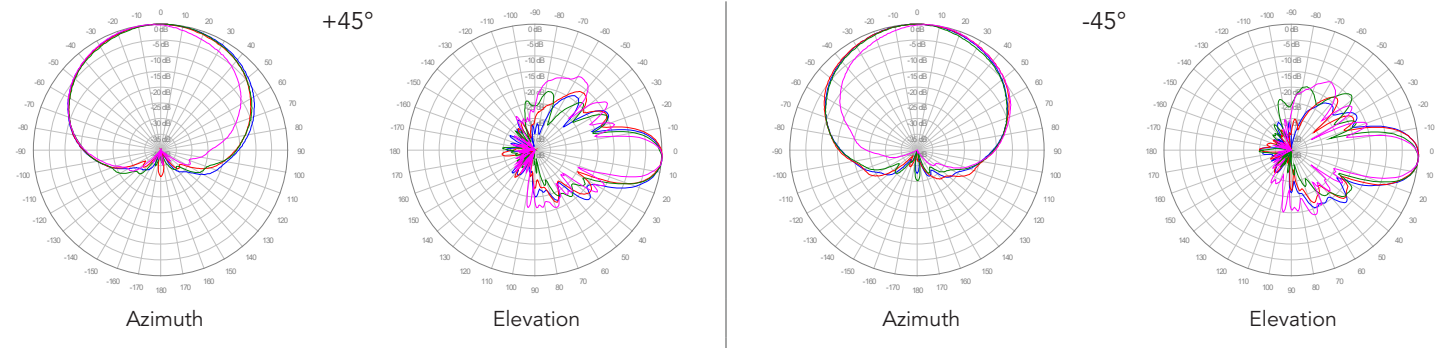


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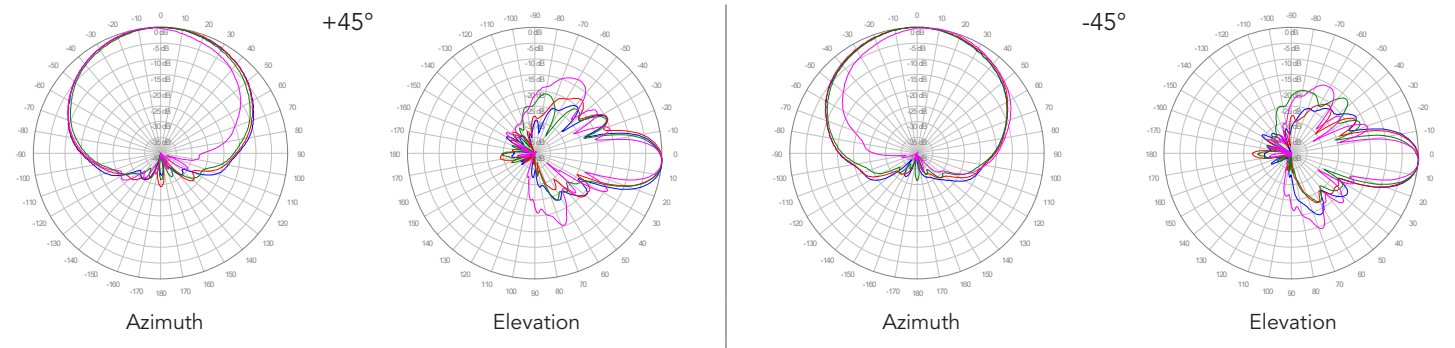
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1800 MHz —
1900 MHz —
2100 MHz —
2600 MHz —

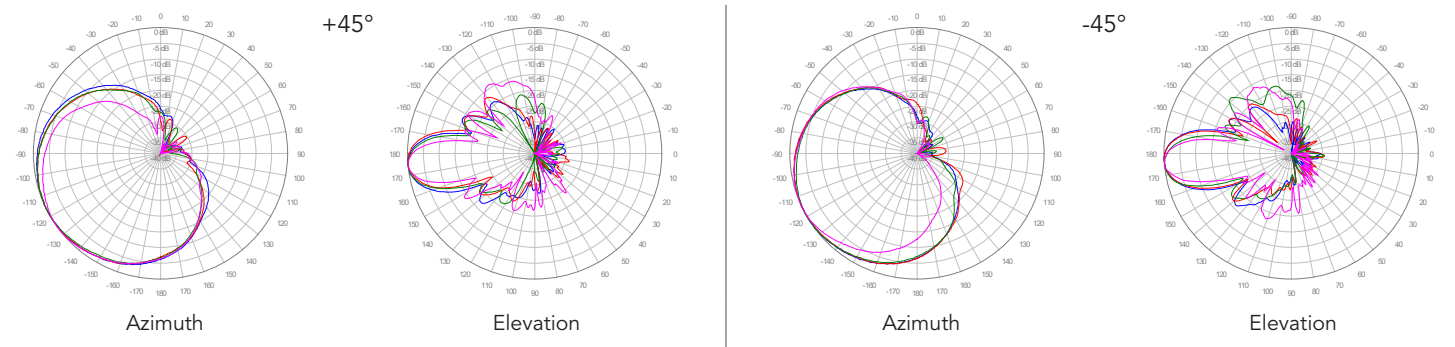
■ Y1, 4° TILT



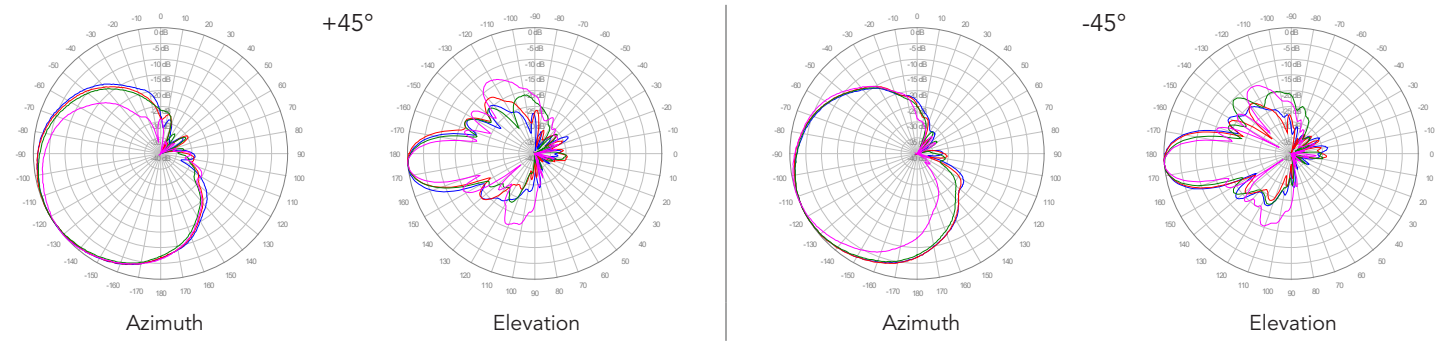
■ Y2, 4° TILT



■ Y3, 4° TILT



■ Y4, 4° TILT

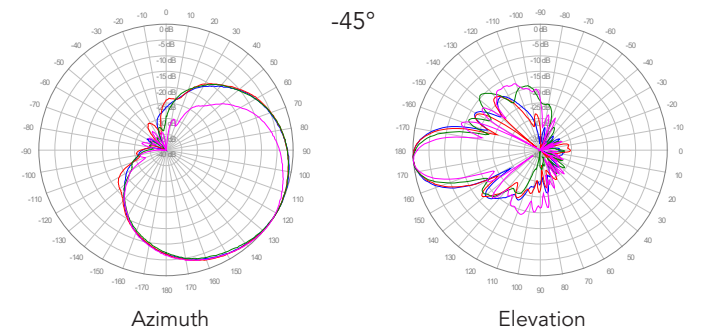
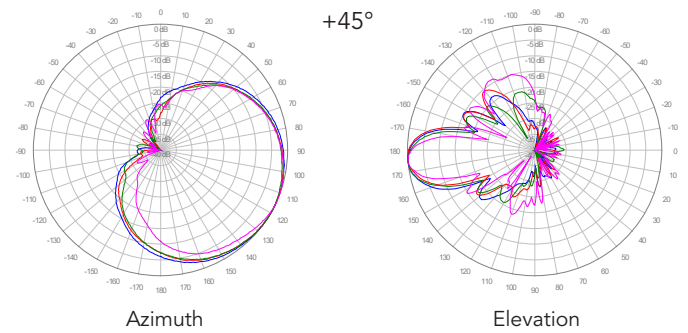


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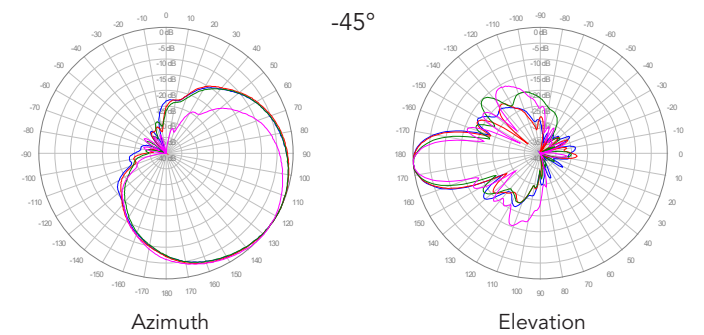
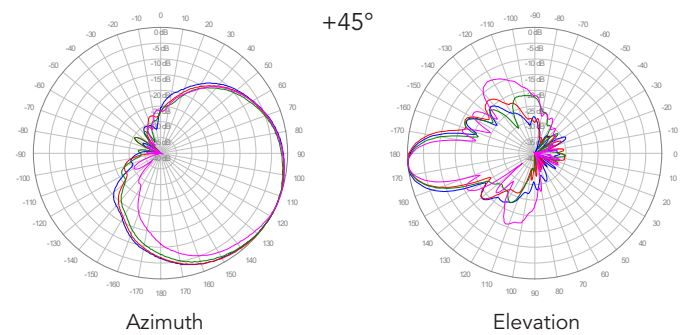
6U4MTSP1X12F_{xy}s4

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

■ Y5, 4° TILT



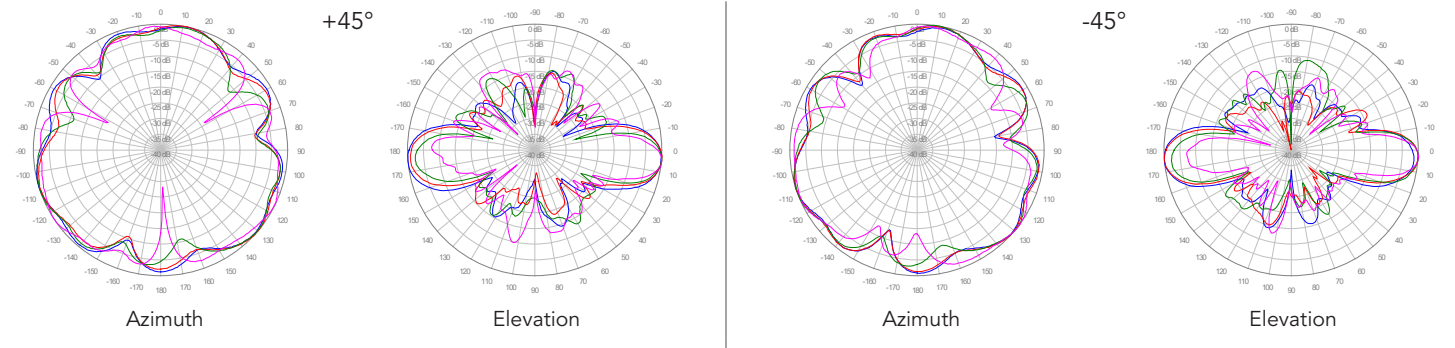
■ Y6, 4° TILT



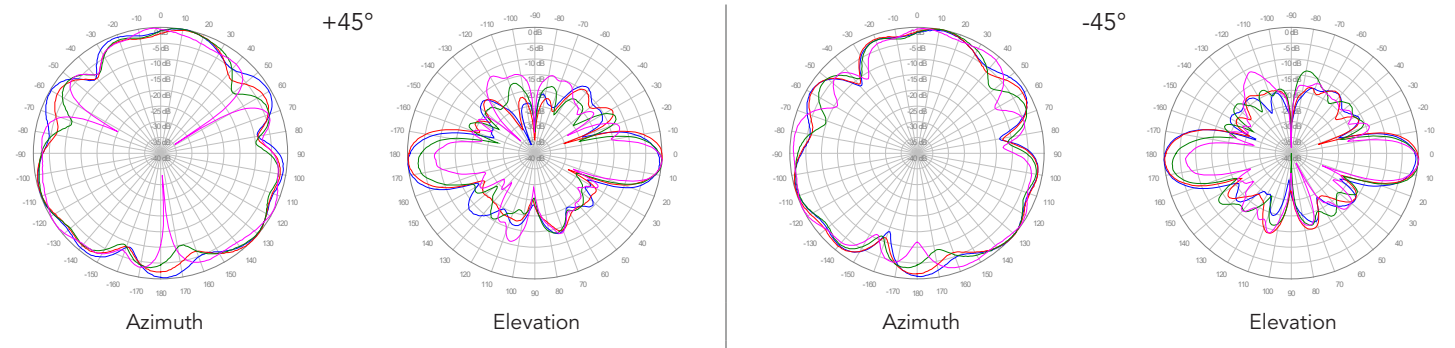
6U4MTSP1X12F_{xy}s4

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

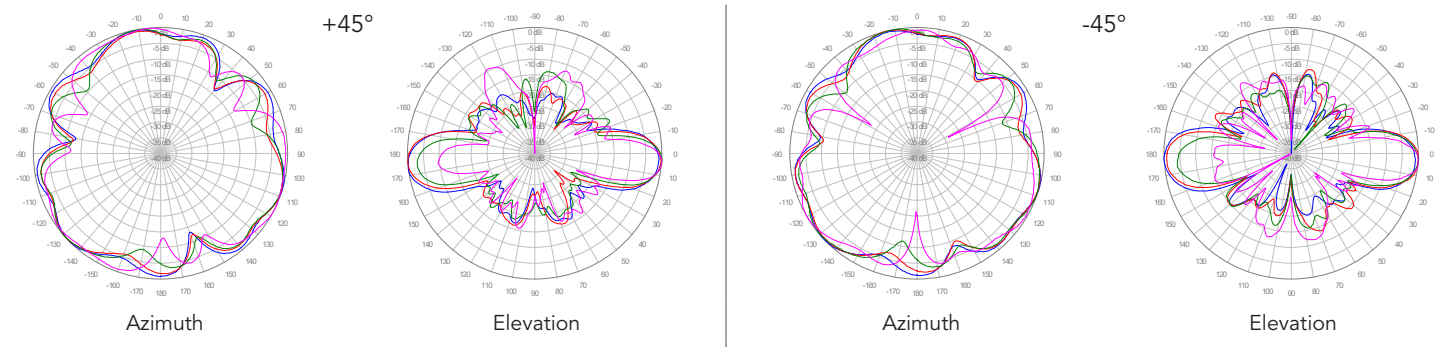
■ Y7, 4° TILT



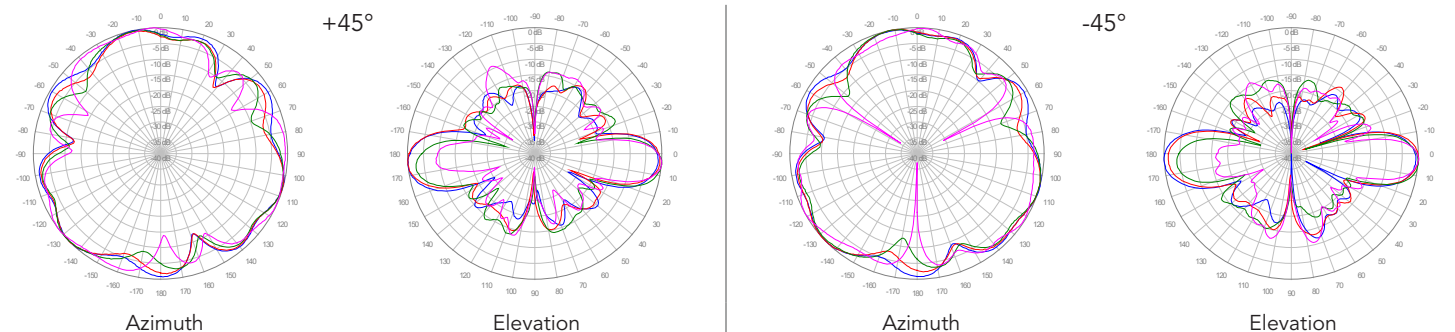
■ Y8, 4° TILT



■ Y9, 4° TILT



■ Y10, 4° TILT

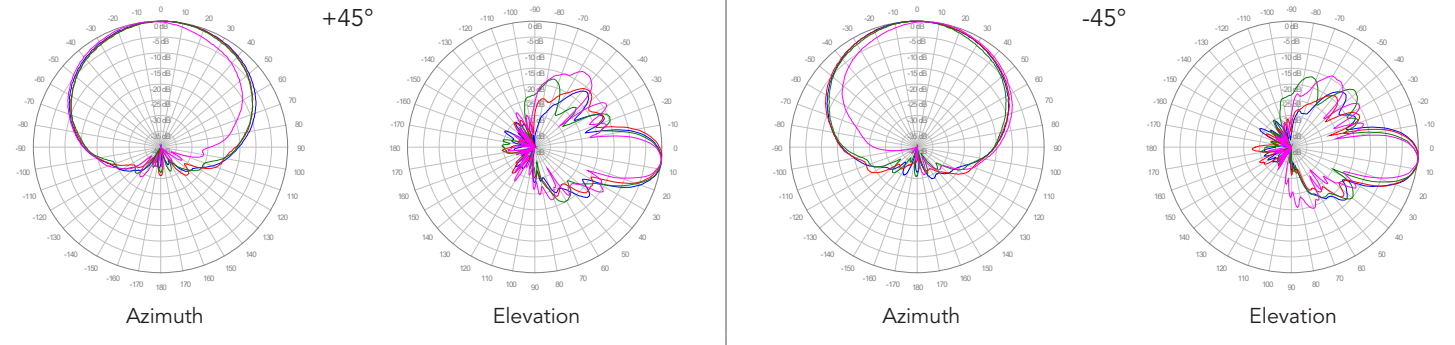


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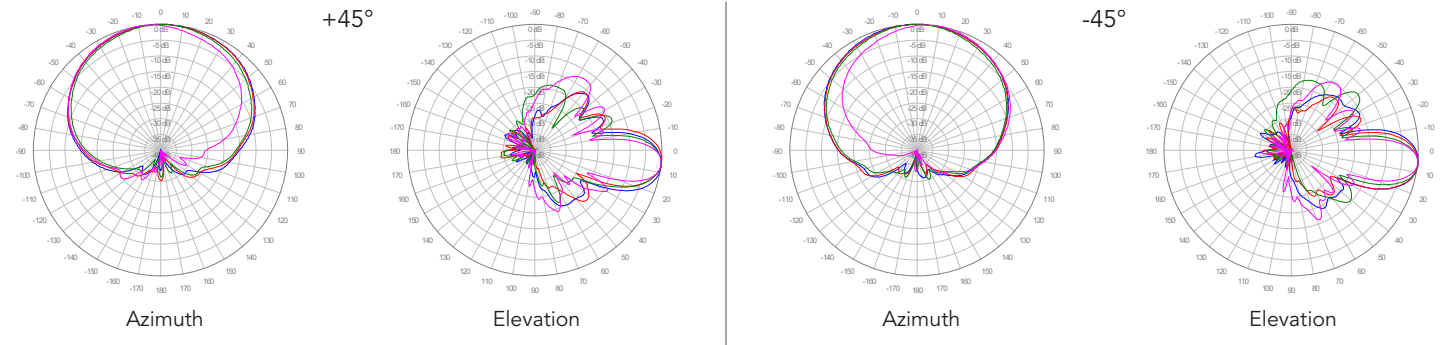
6U4MTSP1X12F_{xy}s4

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

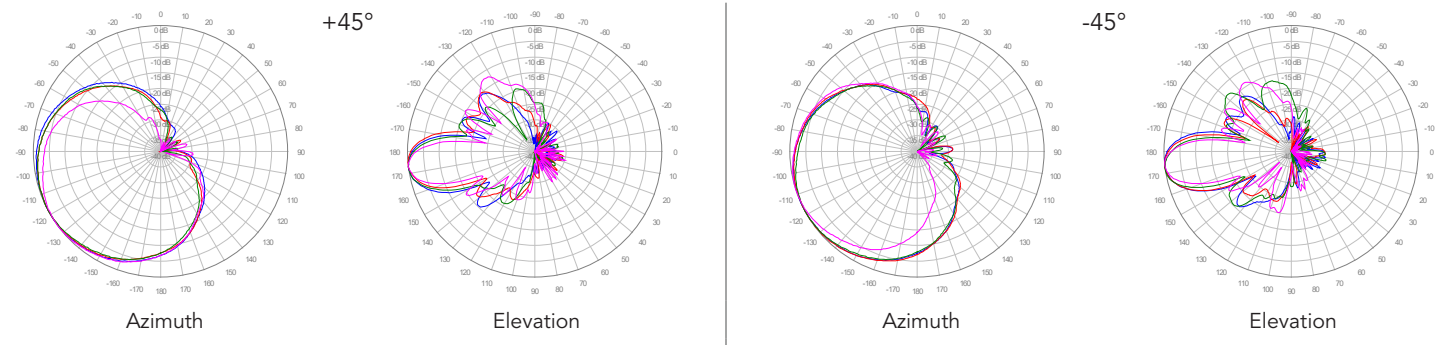
Y1, 6° TILT



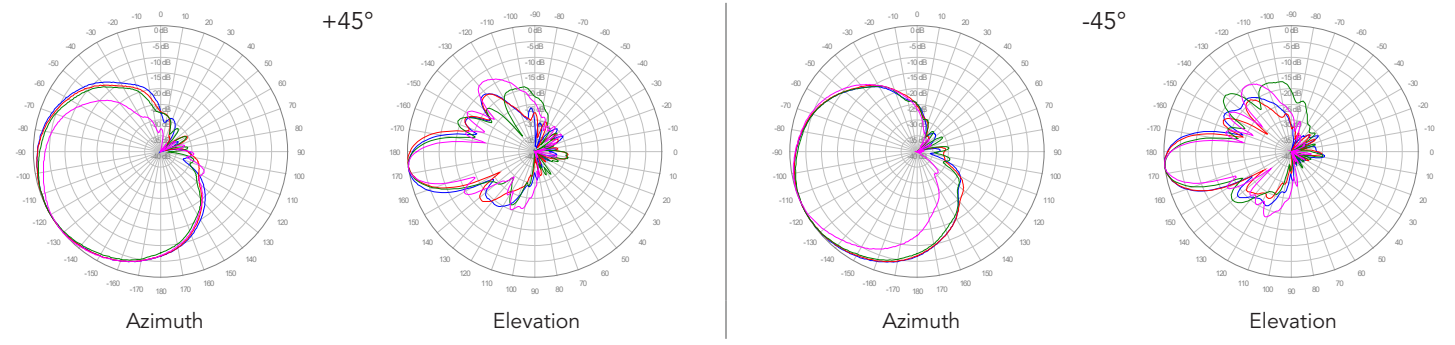
Y2, 6° TILT



Y3, 6° TILT



Y4, 6° TILT

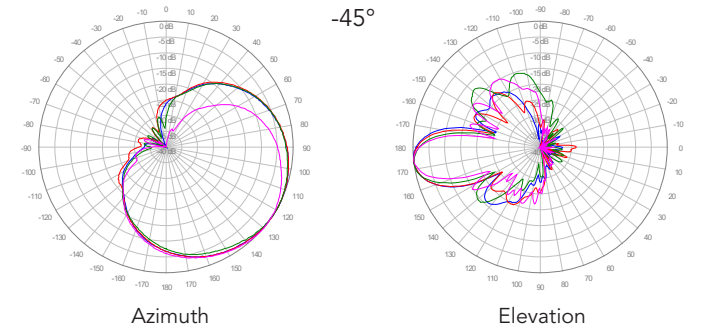
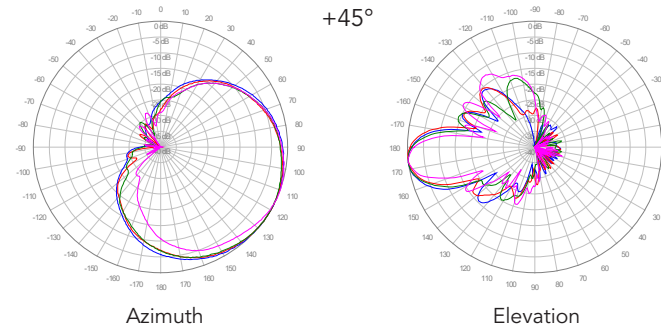


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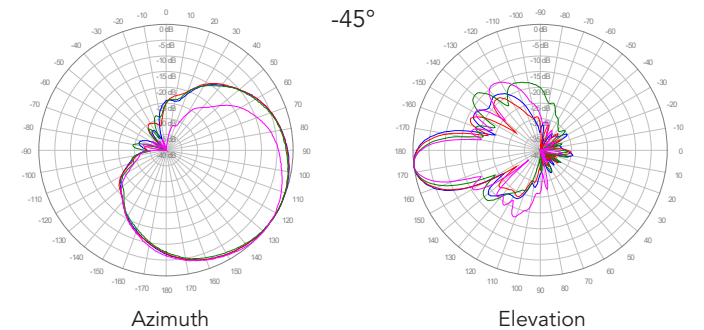
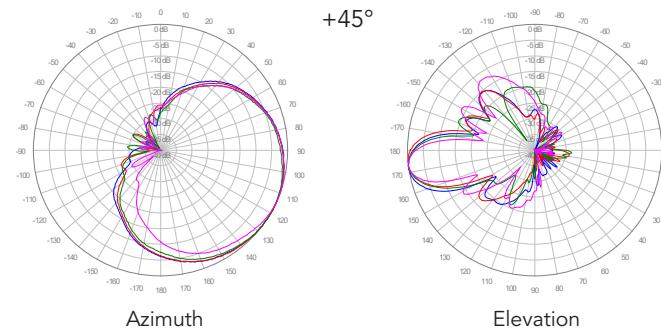
6U4MTSP1X12F_{xy}s4

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

■ Y5, 6° TILT



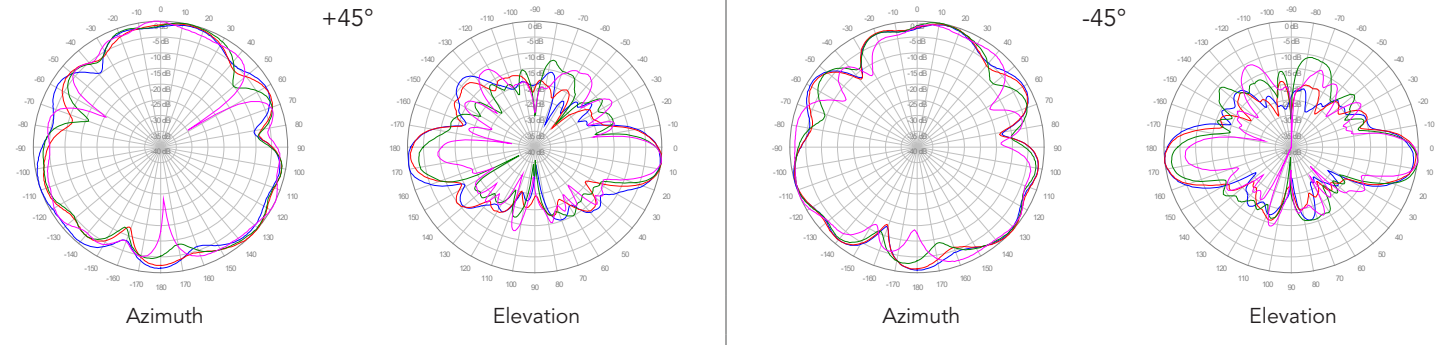
■ Y6, 6° TILT



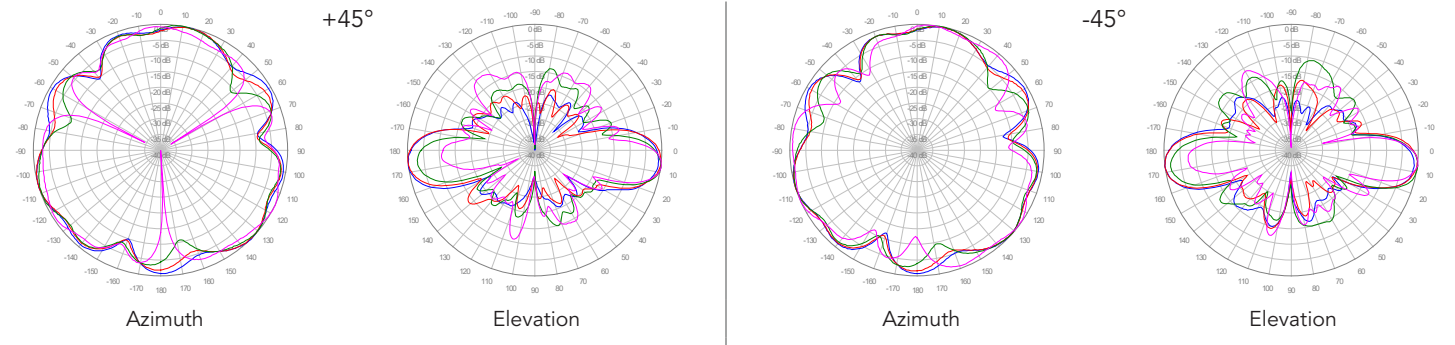
6U4MTSP1X12F_{xy}s4

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

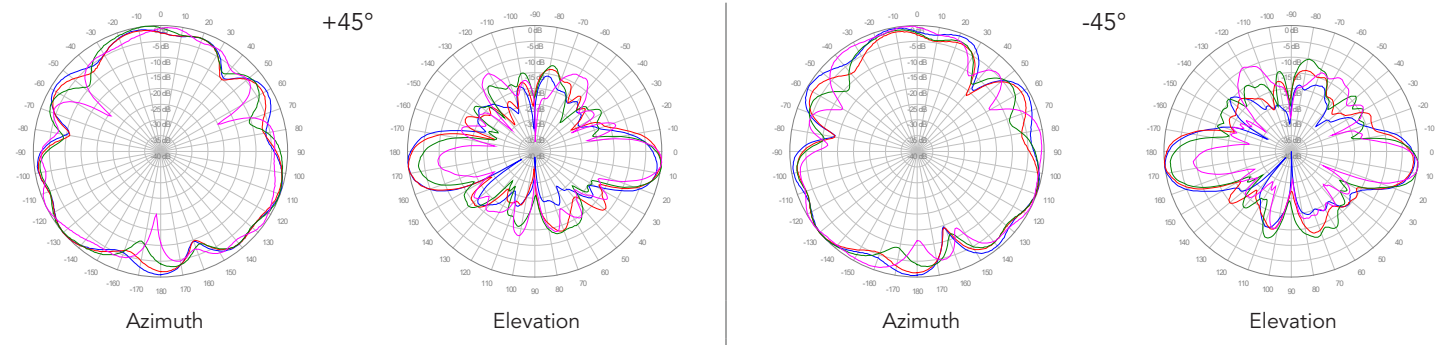
■ Y7, 6° TILT



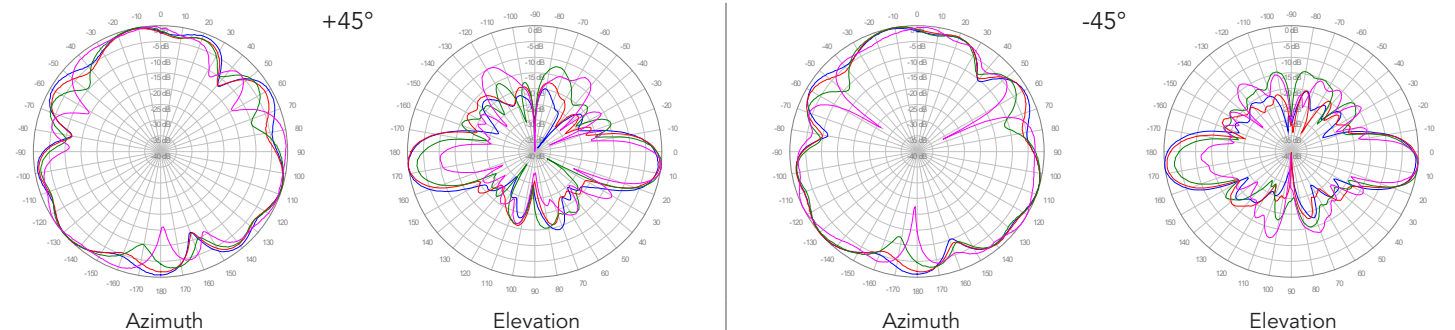
■ Y8, 6° TILT



■ Y9, 6° TILT



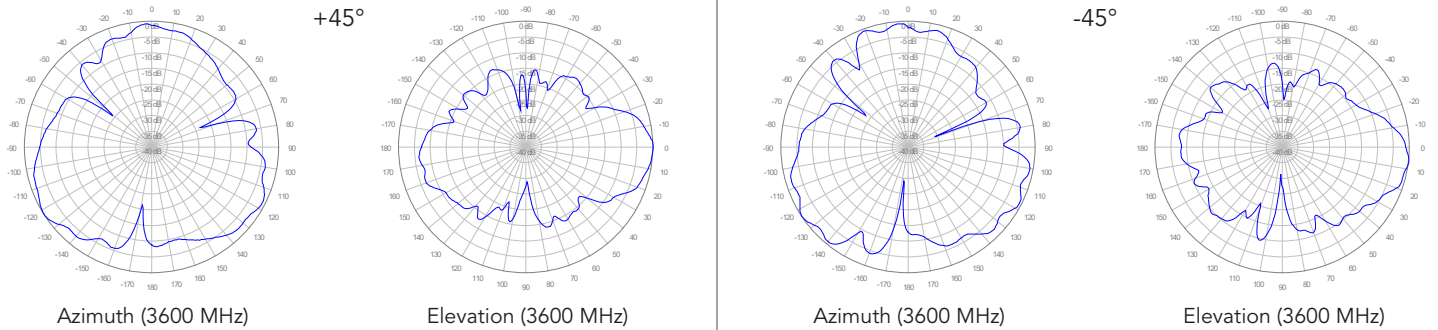
■ Y10, 6° TILT



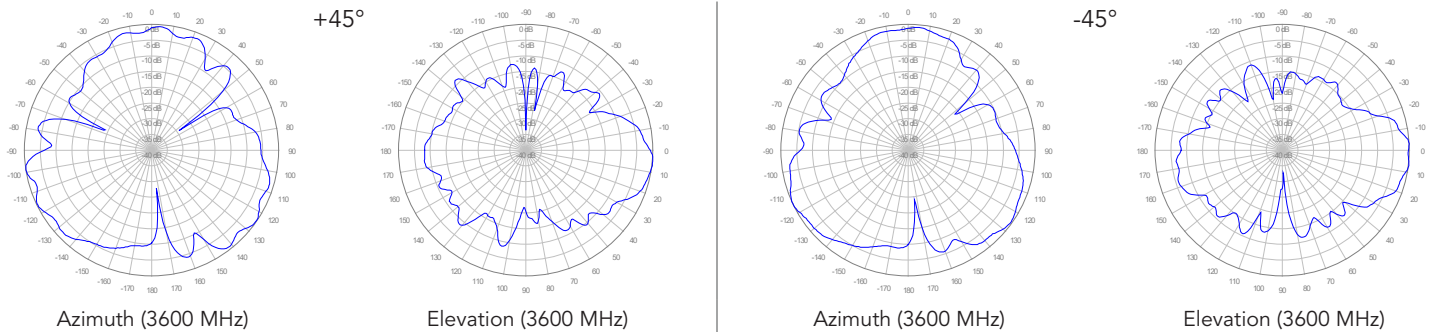
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

6U4MTSP1X12F_{xy}s4

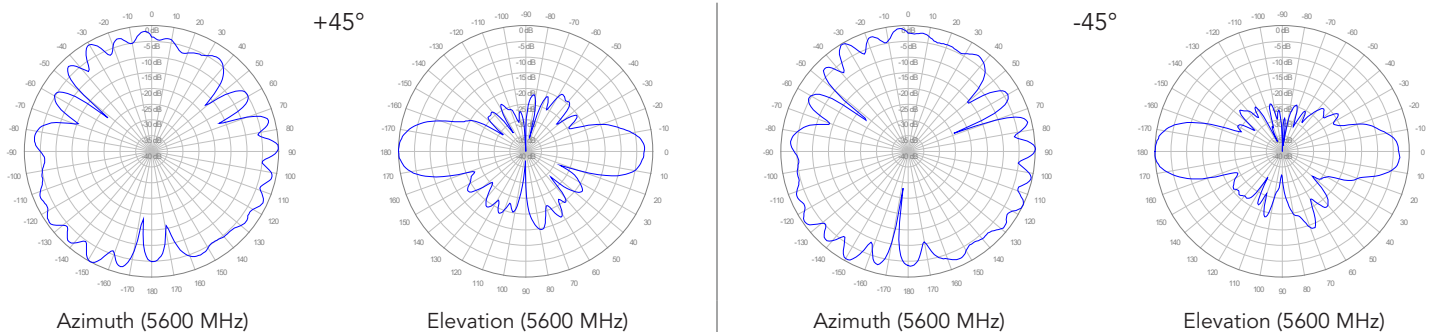
P1, 0° TILT



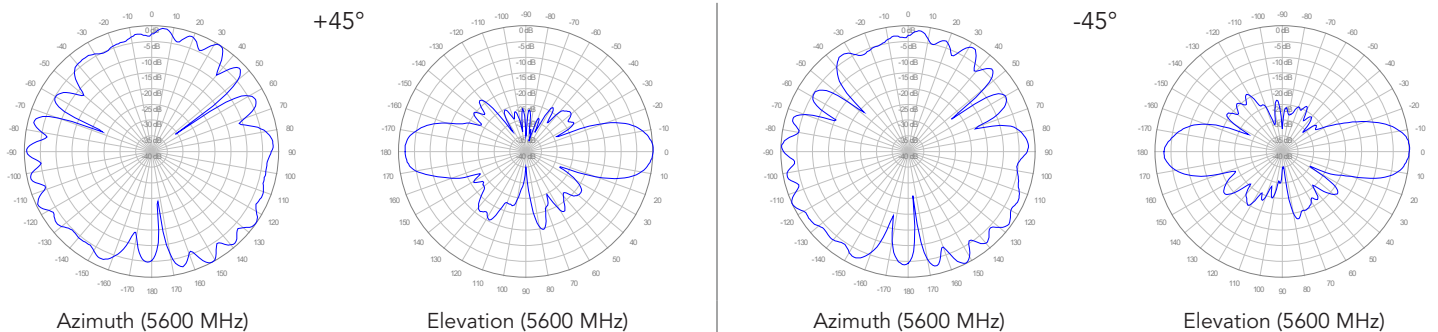
P2, 0° TILT



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.