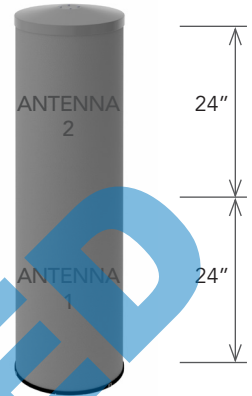


SECTOR / OMNI COMBINATION | 48 IN | FIXED TILT

## 6U4MTSP1X12F<sub>xy</sub>s0

### Features

- Sector and omni configuration with 28 connectors
- Dual antennas integrated under a single radome
- Ideal for multi-carrier or 4x4 MIMO deployments
- 4x4 MIMO capable on both the sectorized and pseudo omni mid bands
- 5 GHz U-NII FCC compliant
- Available for order with a grey, brown or black radome



PRODUCT OVERVIEW	Frequency Range (MHz)	MID								CBRS		LAA			
		(6x) 1695-2700								(2x) 3550-3700		(2x) 5150-5925			
Array		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	P1	P2	O1	O2
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													
Connector Type		(28x) 4.3-10 FEMALE CONNECTORS													
Dimensions		1223 x Ø371 mm (48.2 x Ø14.6 in)													
Radome Color Options		GREY, BROWN or BLACK													

### ELECTRICAL SPECIFICATIONS Mid Band

		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10		
Frequency Range	MHz	(6x) 1695-2700											
Frequency Sub-Range	MHz	1695-1880			1850-1990			1920-2200			2300-2700		
Polarization	---	(6x) ±45°											
Gain	Pseudo Omni	dBi	8.3 ± 0.8 dBi		9.0 ± 0.5 dBi		9.1 ± 0.5 dBi		9.0 ± 0.9 dBi				
	Sector	dBi	12.9 ± 0.6 dBi		13.4 ± 0.3 dBi		13.6 ± 0.4 dBi		14.1 ± 0.7 dBi				
Azimuth Beamwidth (3 dB)	Pseudo Omni	degrees	360°										
	Sector	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											
Upper Sidelobe Suppression	dB	> 14		> 14		> 14		> 14					
Isolation	Intraband	dB	> 25										
	Interband	dB	> 28										
Input Power	Watts	300W											

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<sub>xy</sub>s0

### ELECTRICAL SPECIFICATIONS CBRS Band

■ P1 ■ P2

Frequency Range	MHz	(2x) 3550-3700	
Polarization	---	(2x) ±45°	
Gain	BASTA	dBi	5.5 ± 0.6
	MAX	dBi	6.1
Azimuth Beamwidth (3 dB)	degrees	360°	
Elevation Beamwidth (3 dB)	degrees	32.6 ± 4.1°	
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	N/A	
Isolation	Intraband	dB	> 25
	Interband	dB	> 28
Input Power	Watts	100W	

### ELECTRICAL SPECIFICATIONS LAA Band

■ O1 ■ O2

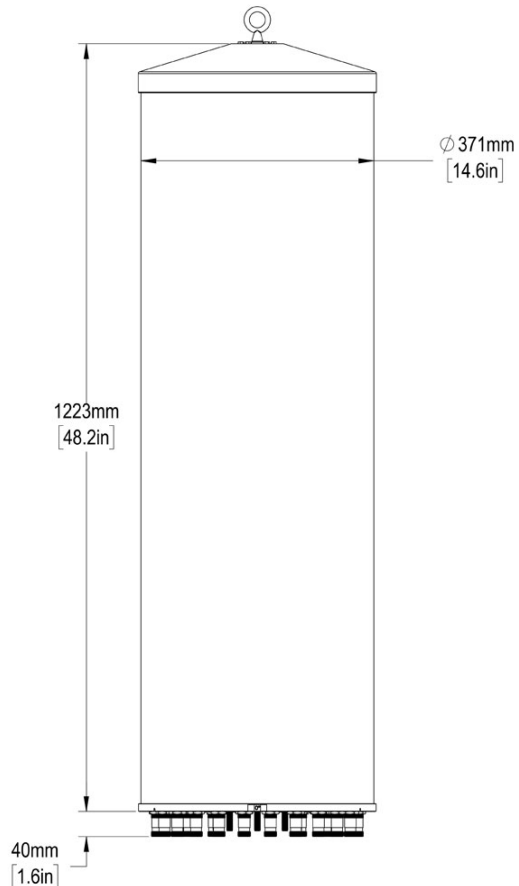
Frequency Range	MHz	(2x) 5150-5925	
Polarization	---	(2x) ±45°	
Gain	BASTA	dBi	5.1 ± 0.7
	MAX	dBi	5.8
Azimuth Beamwidth (3 dB)	degrees	360°	
Elevation Beamwidth (3 dB)	degrees	22.0° ± 1.6°	
Electrical Downtilt	degrees	(y) 0°	
Impedance	Ohms	50Ω	
VSWR	---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers	dBc	N/A	
Upper Sidelobe Suppression	dB	> 20	
Isolation	Intraband	dB	> 25
	Interband	dB	> 28
Input Power	Watts	50W	
U-NII Compliant	---	Yes	

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<sub>xy</sub>s0

### MECHANICAL SPECIFICATIONS

Antenna	Height	mm (in)	1223 (48.2)
	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 <sup>2</sup> (ft <sup>2</sup> )	0.47 (5.0)
Volume	Total	m <sup>3</sup> (ft <sup>3</sup> )	0.13 (4.7)
	Each Antenna	m <sup>3</sup> (ft <sup>3</sup> )	0.065 (2.33)
Connector	Type	---	4.3-10 Female
	Quantity	---	28
	Position	---	Bottom
Radome Color		---	Grey (Pantone 420 C) Brown (Pantone 476 C) Black (RAL 9011)
Lightning Protection (Grounding Type)		---	Direct Ground

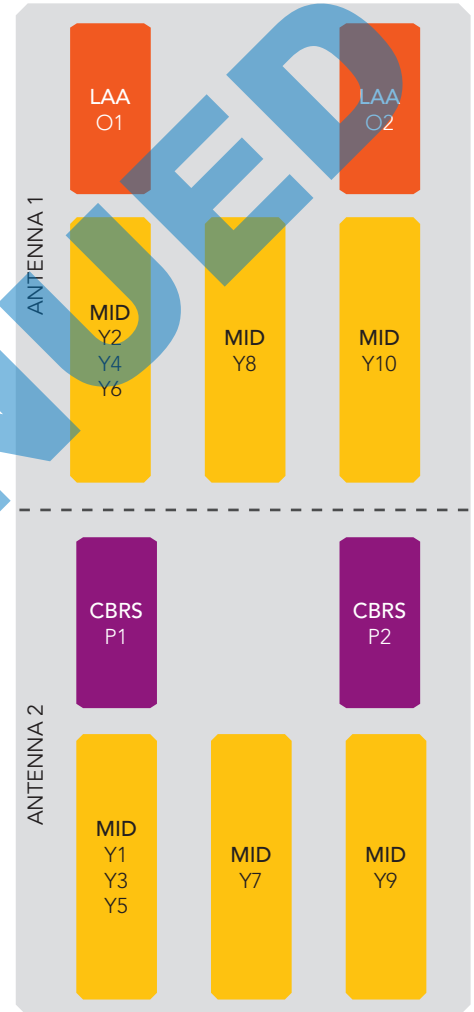


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

## 6U4MTSP1X12F<sub>xy</sub>s0

### ARRAY LAYOUT Topology

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

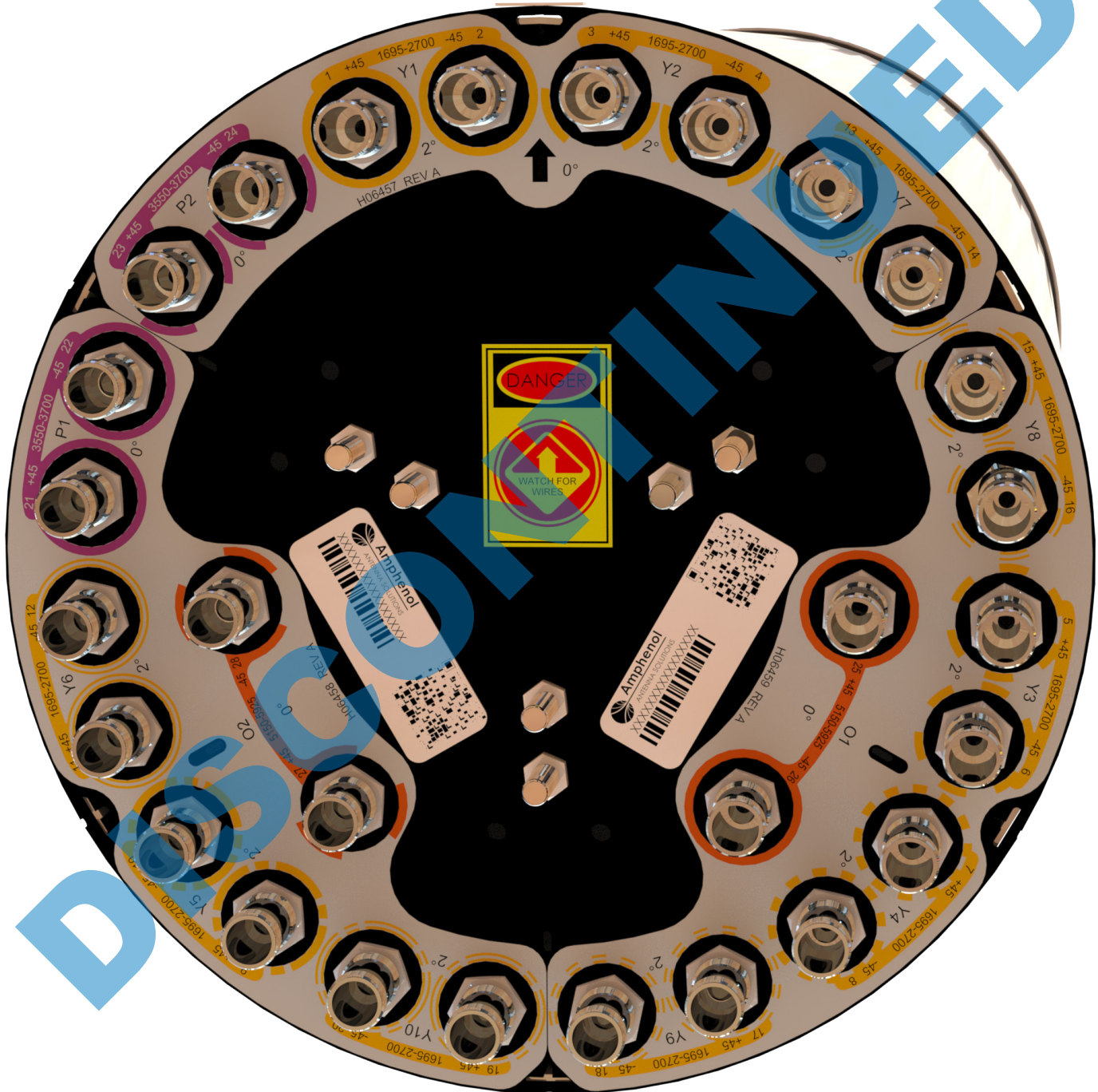


The illustration is not shown to scale.

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.

# 6U4MTSP1X12FxyS0

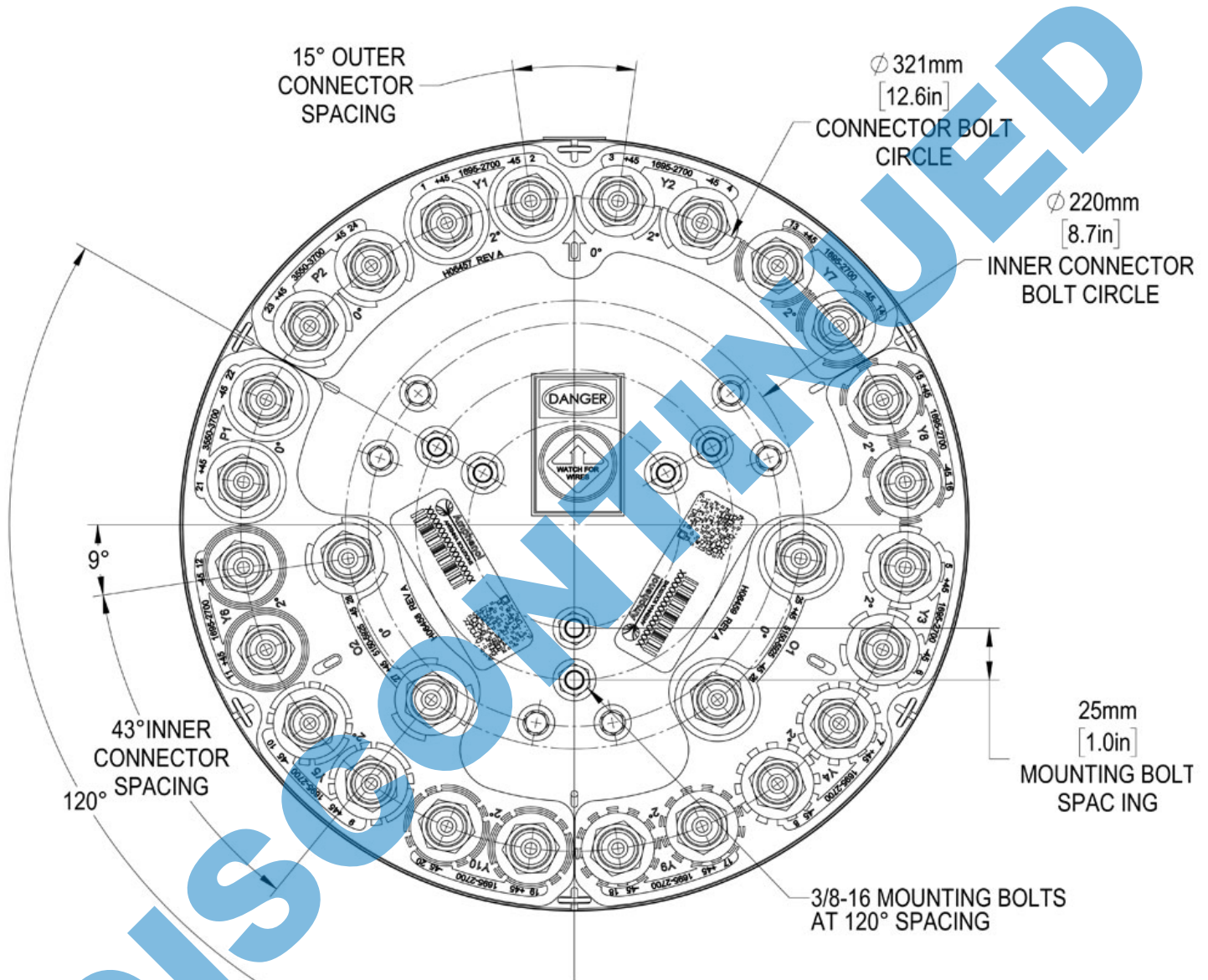
## BOTTOM VIEW - LABELING



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.

6U4MTSP1X12FxyS0

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.

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<sub>xy</sub>s0

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

MODEL NUMBER	IMAGE	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.

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.

## 6U4MTSP1X12FxyS0

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

NUMBER OF BANDS & OPERATING FREQUENCY			PATTERN TYPE	AZIMUTH BMWIDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	RADOME COLOR OPTIONS	
6U			4M	T	SP1	X	12	F	xy	s	0	BK BR
(6x) 1695-2700	(2x) 3550-3700	(2x) 5150-5925	Tri-Sector	Sector and 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	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			ORDER MODEL NUMBER
	MID BAND	CBRS BAND	LAA BAND	
Grey Pantone 420 C	2°	0°	0°	6U4MTSP1X12F20s0
	4°	0°	0°	6U4MTSP1X12F40s0
	6°	0°	0°	6U4MTSP1X12F60s0
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs0
Brown Pantone 476 C	2°	0°	0°	6U4MTSP1X12F20s0BR
	4°	0°	0°	6U4MTSP1X12F40s0BR
	6°	0°	0°	6U4MTSP1X12F60s0BR
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs0BR
Black RAL 9011	2°	0°	0°	6U4MTSP1X12F20s0BK
	4°	0°	0°	6U4MTSP1X12F40s0BK
	6°	0°	0°	6U4MTSP1X12F60s0BK
	Y1-Y6=6°; Y7-Y10=2°	0°	0°	6U4MTSP1X12FAAs0BK

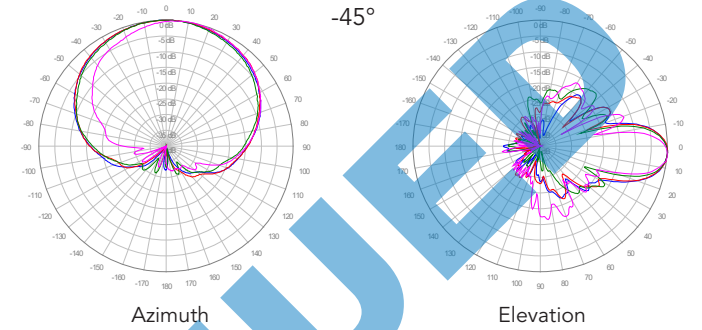
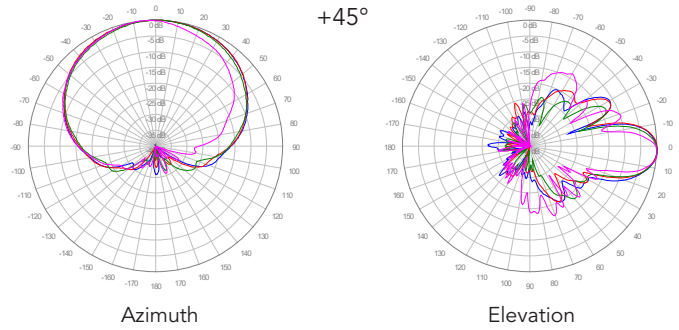
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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



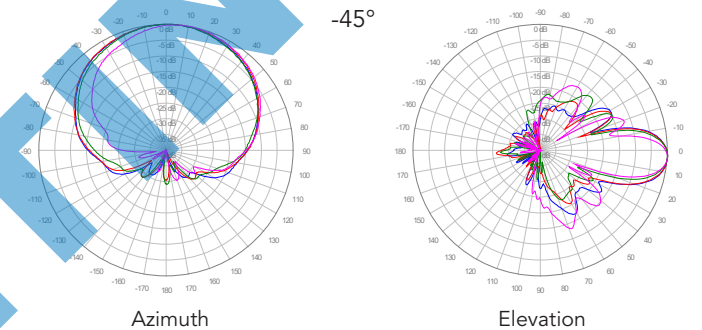
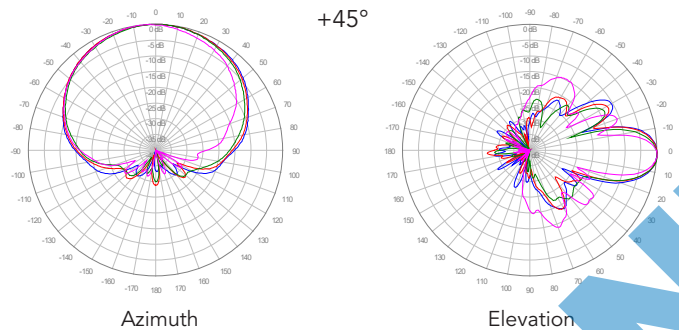
**6U4MTSP1X12FxyS0**

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

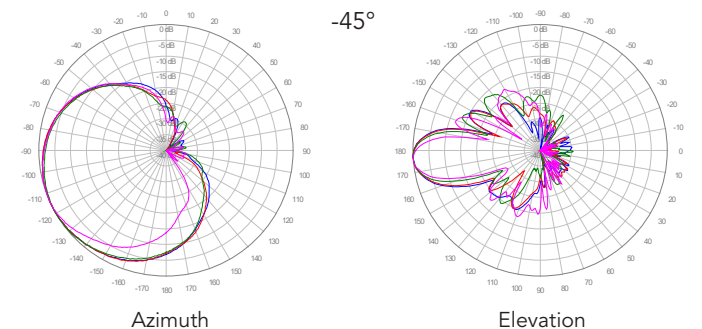
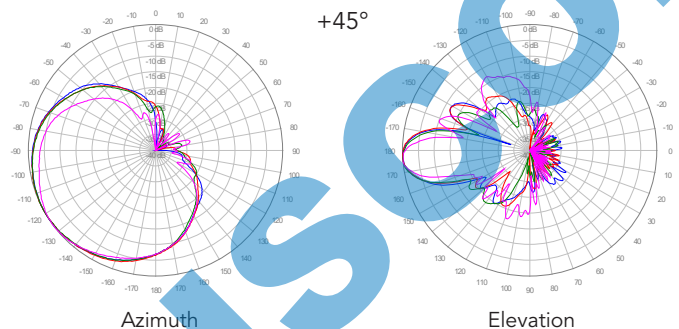
**Y1, 2° TILT**



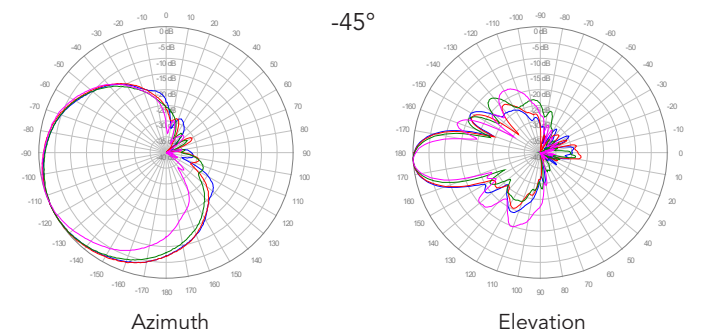
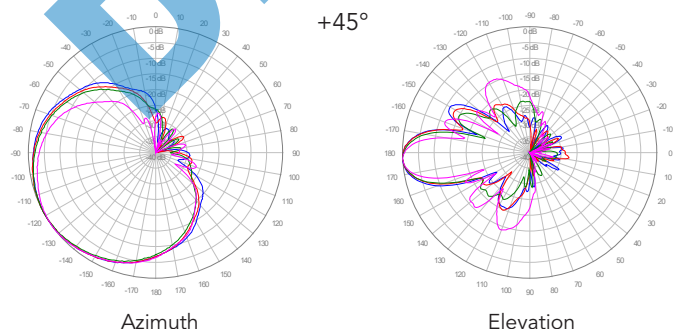
**Y2, 2° TILT**



**Y3, 2° TILT**



**Y4, 2° TILT**

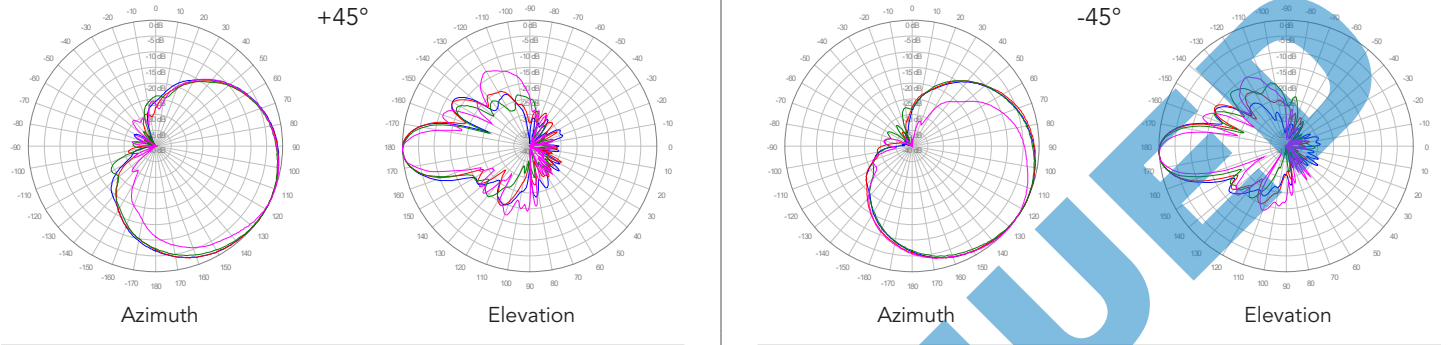


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

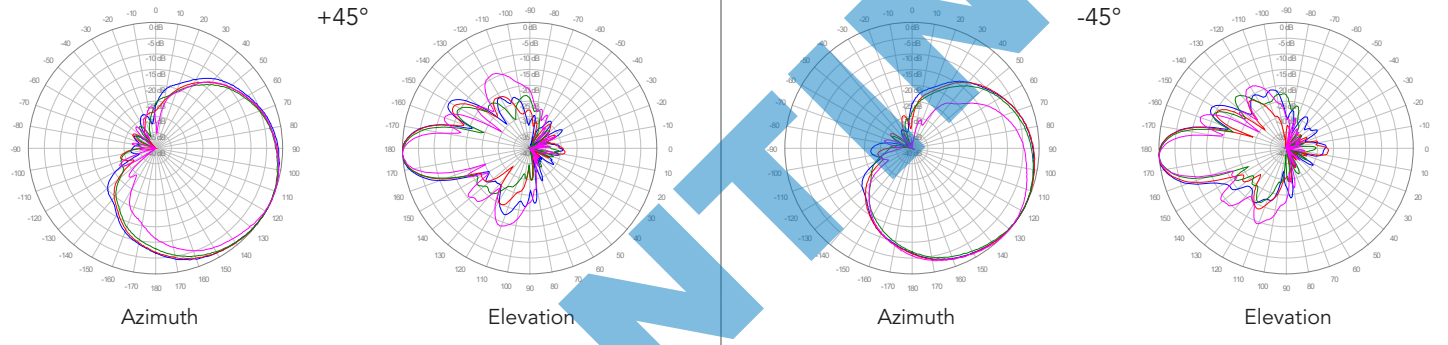
**6U4MTSP1X12FxyS0**

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

**Y5, 2° TILT**



**Y6, 2° TILT**



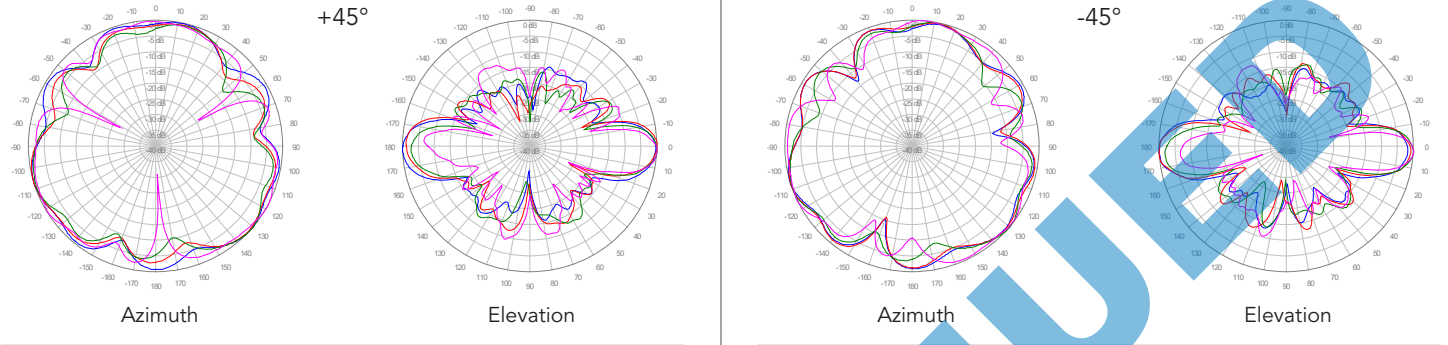
DISCONTINUED

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.

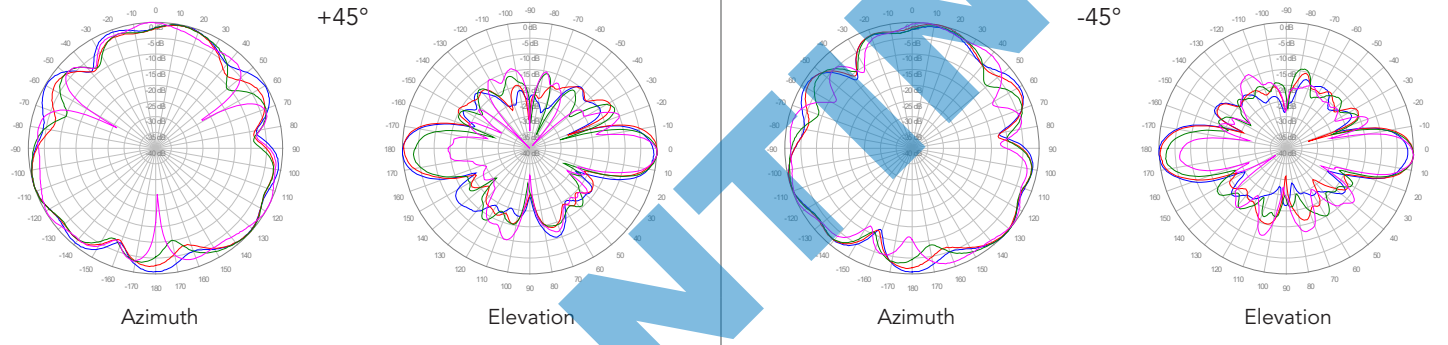
**6U4MTSP1X12FxyS0**

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

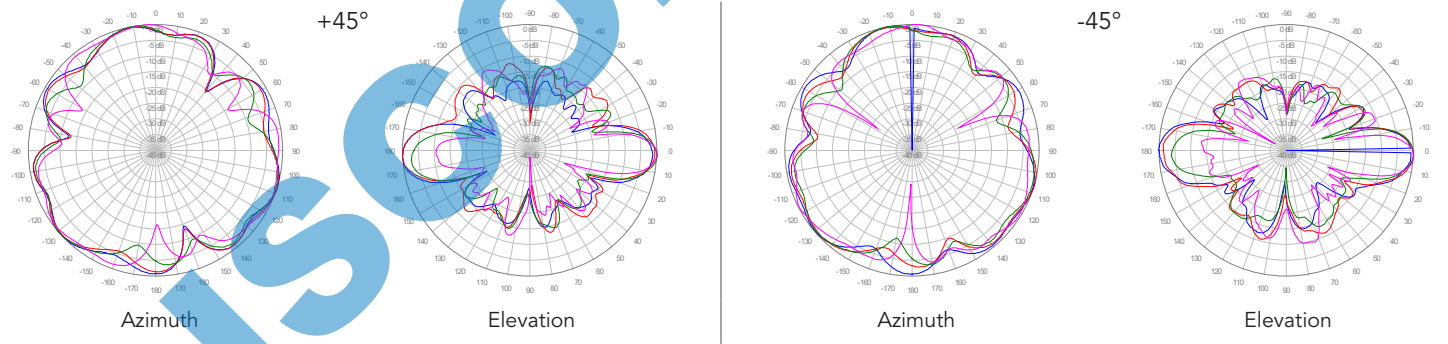
**Y7, 2° TILT**



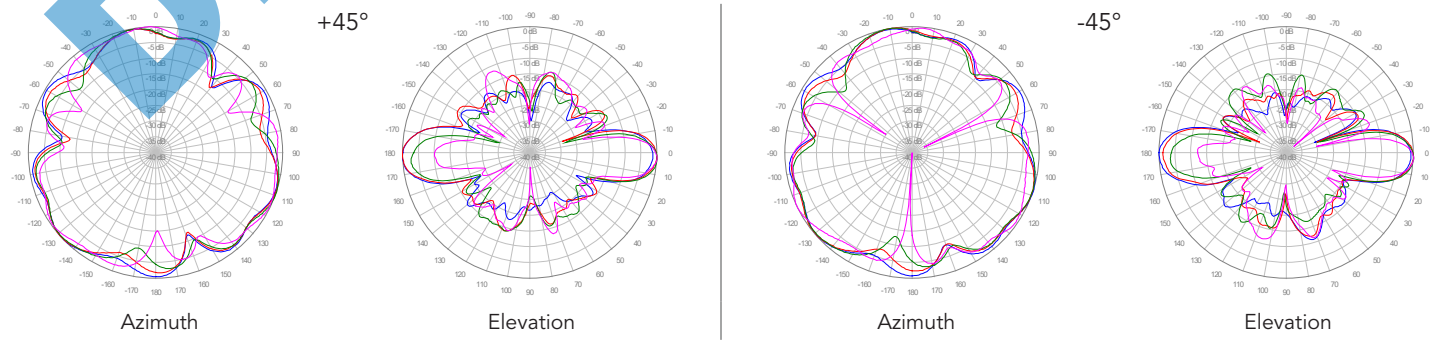
**Y8, 2° TILT**



**Y9, 2° TILT**



**Y10, 2° TILT**

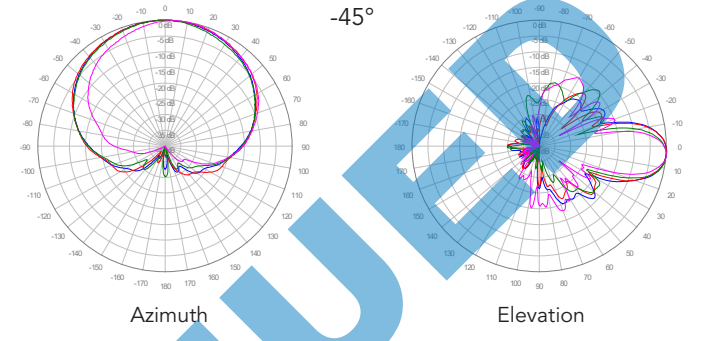
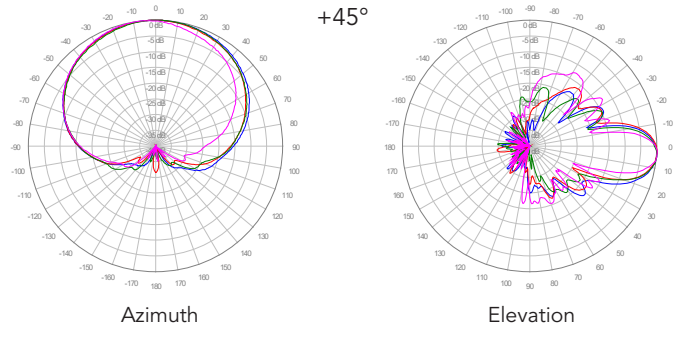


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

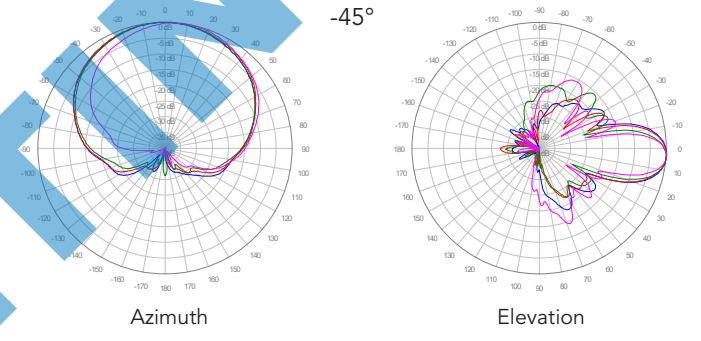
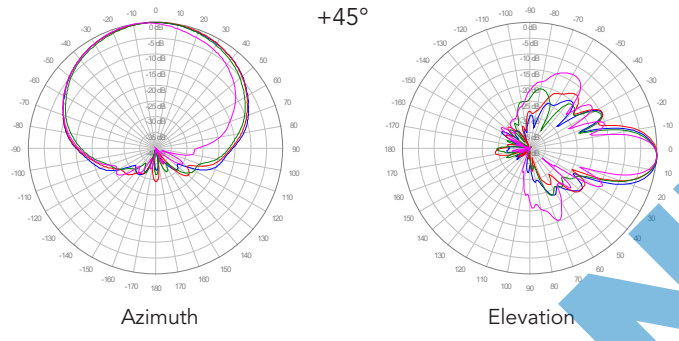
**6U4MTSP1X12FxyS0**

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

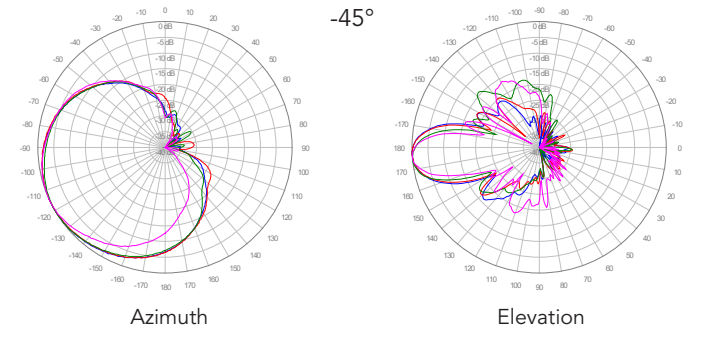
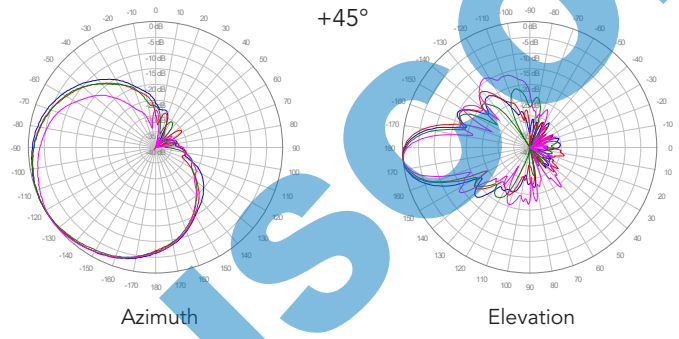
**Y1, 4° TILT**



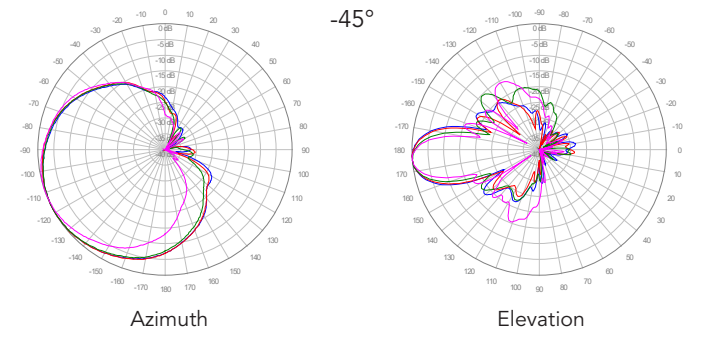
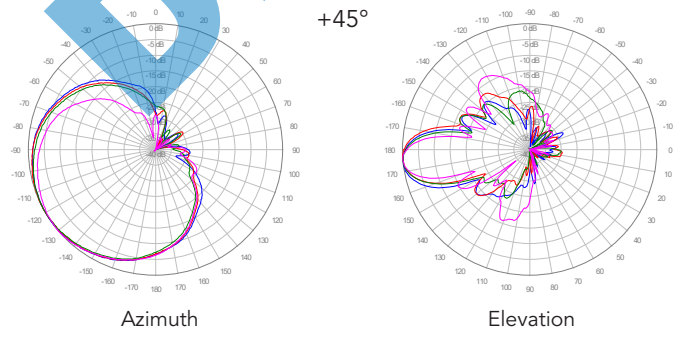
**Y2, 4° TILT**



**Y3, 4° TILT**



**Y4, 4° TILT**

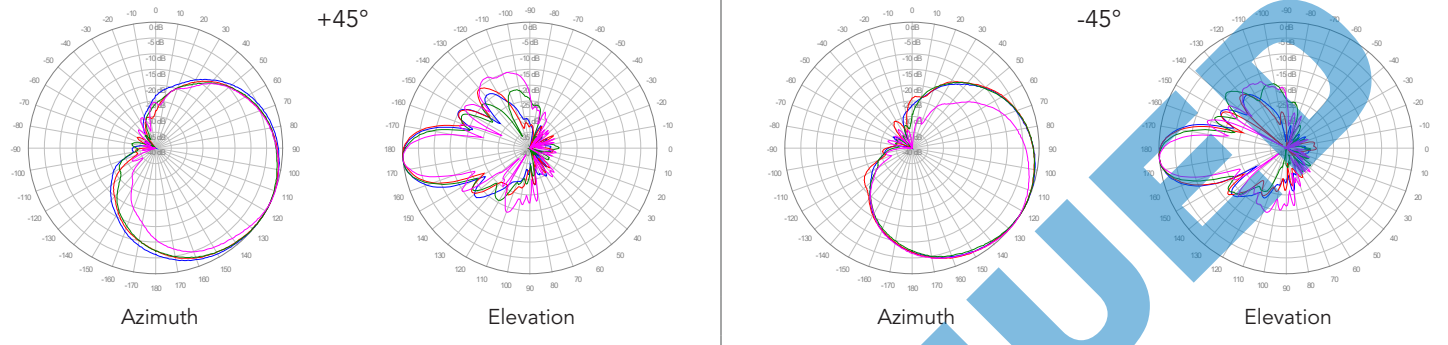


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

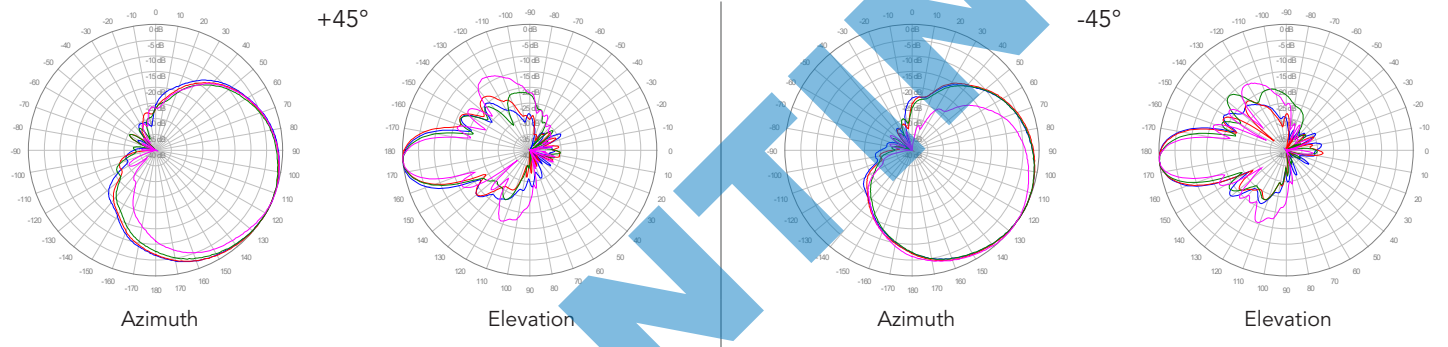
**6U4MTSP1X12F<sub>xy</sub>s0**

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

**Y5, 4° TILT**



**Y6, 4° TILT**



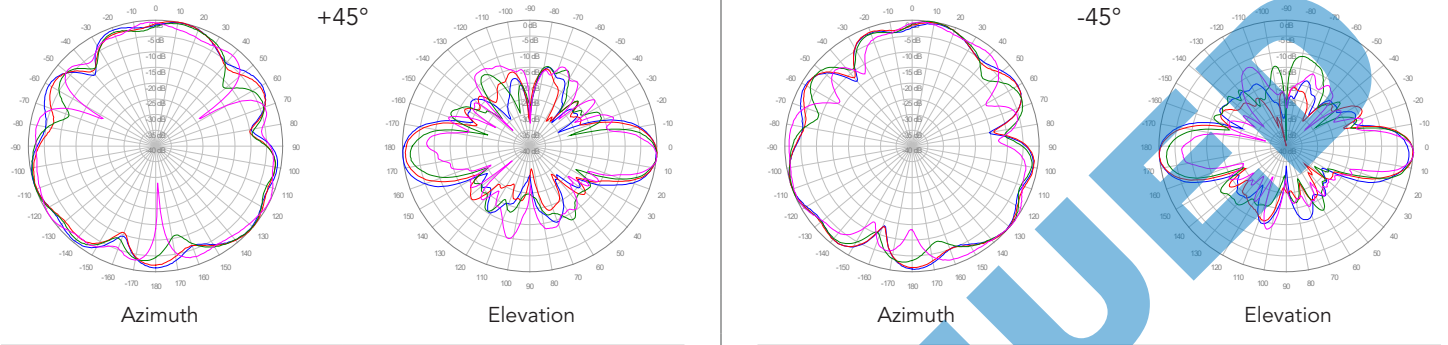
DISCONTINUED

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.

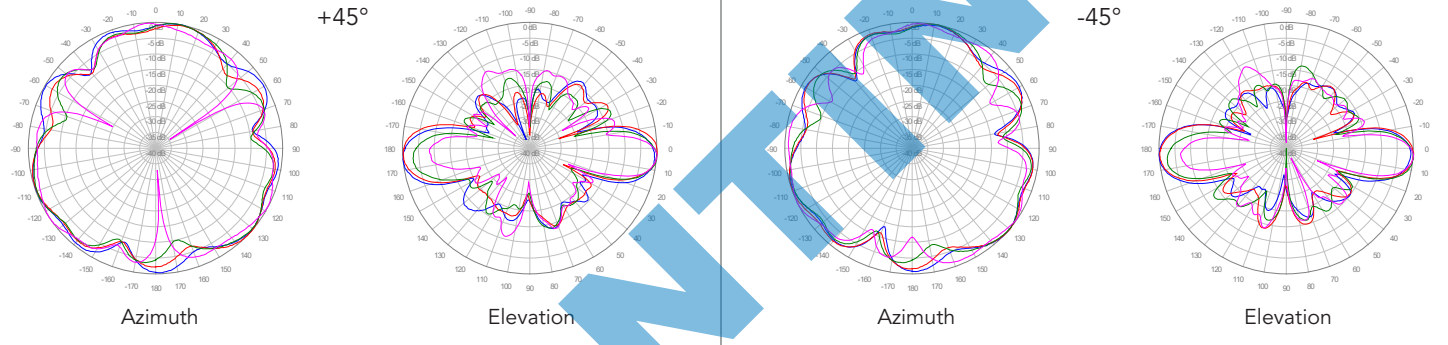
**6U4MTSP1X12FxyS0**

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

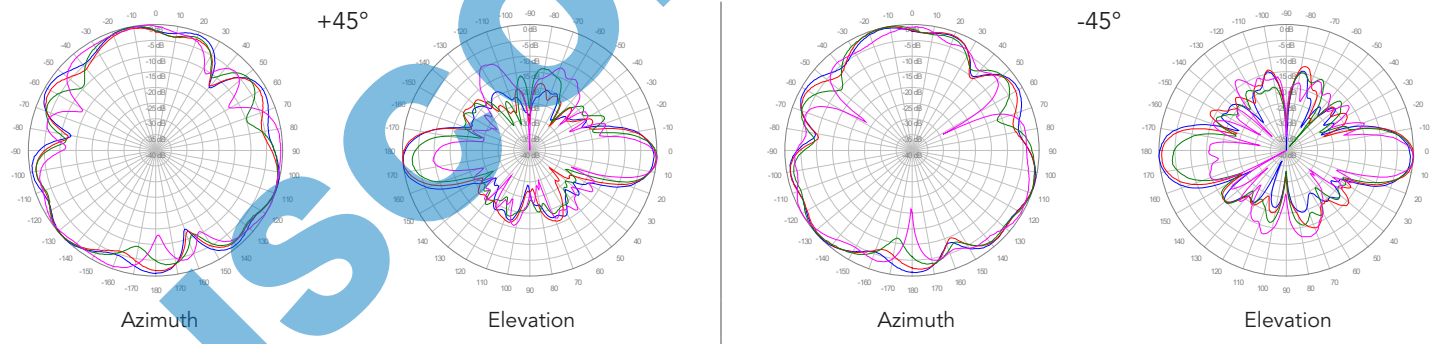
**Y7, 4° TILT**



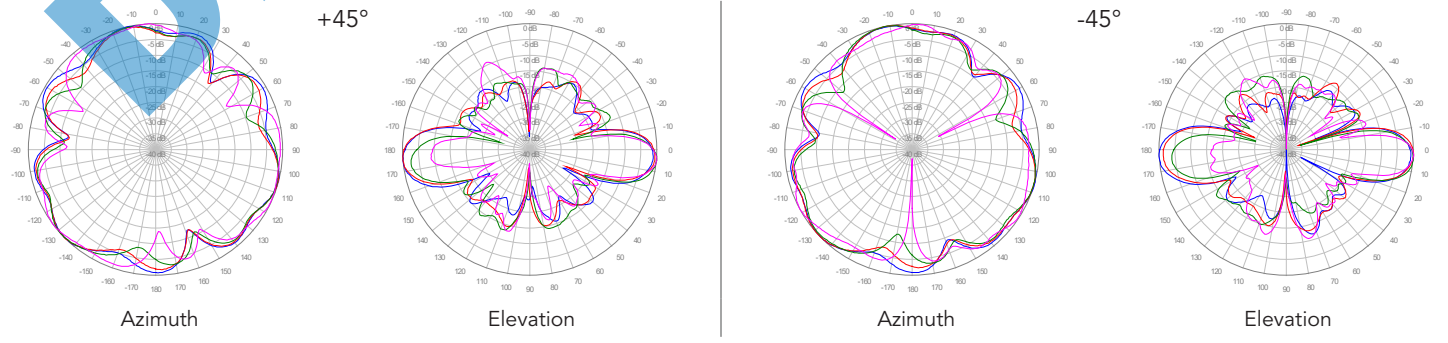
**Y8, 4° TILT**



**Y9, 4° TILT**



**Y10, 4° TILT**

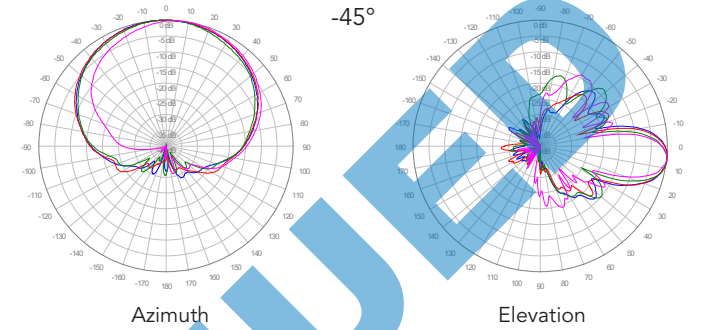
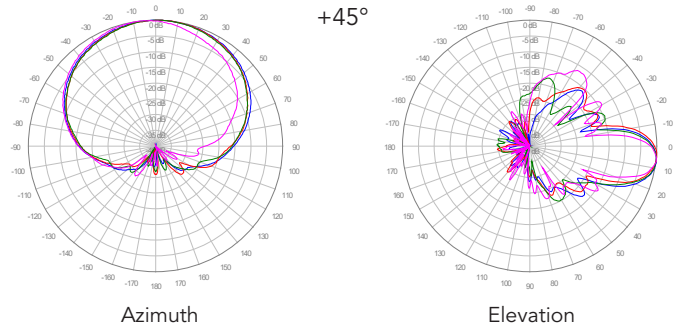


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

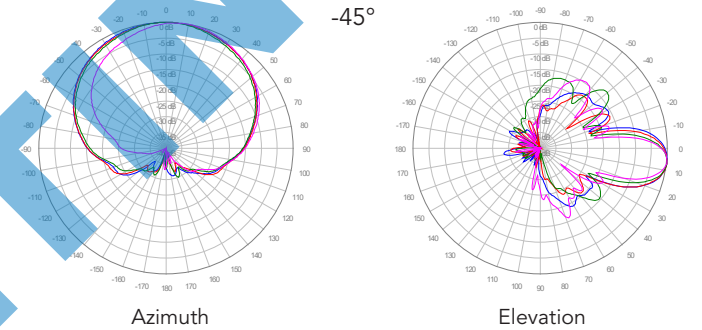
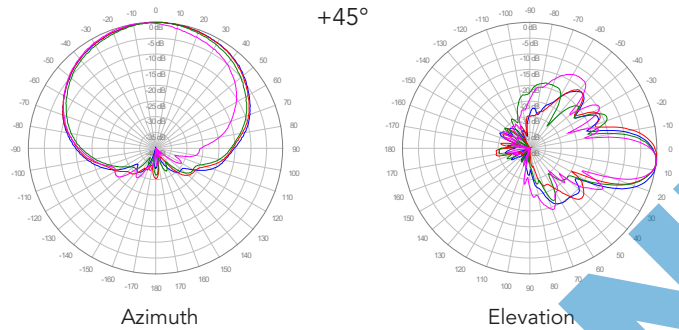
**6U4MTSP1X12FxyS0**

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

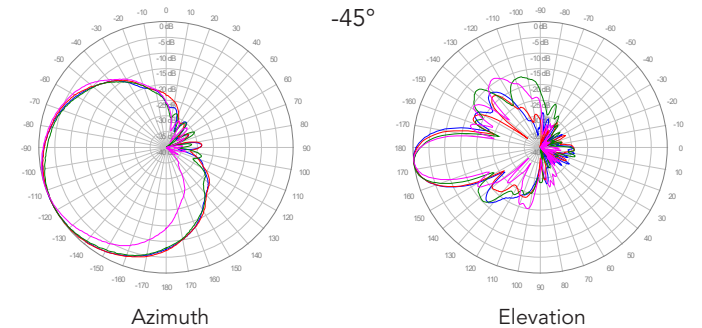
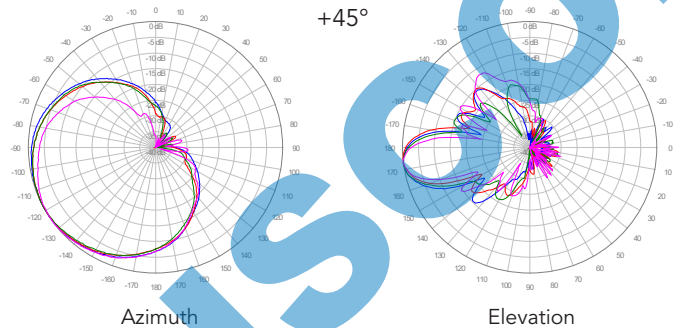
**Y1, 6° TILT**



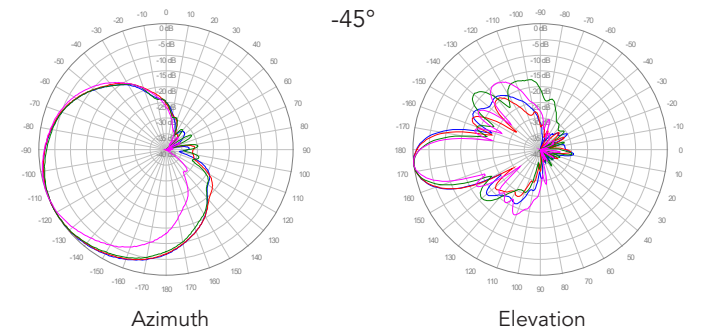
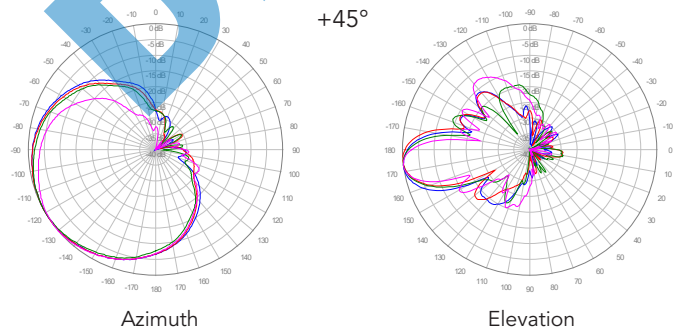
**Y2, 6° TILT**



**Y3, 6° TILT**



**Y4, 6° TILT**

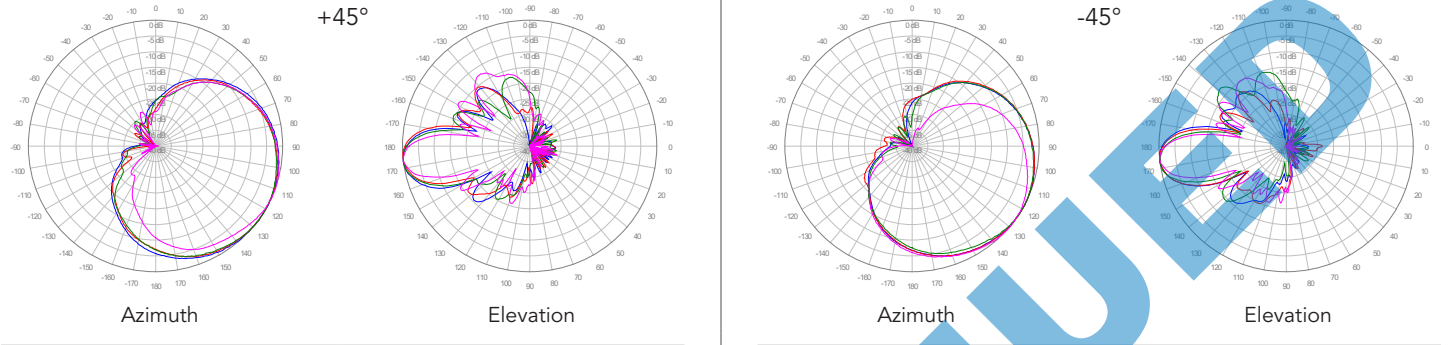


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

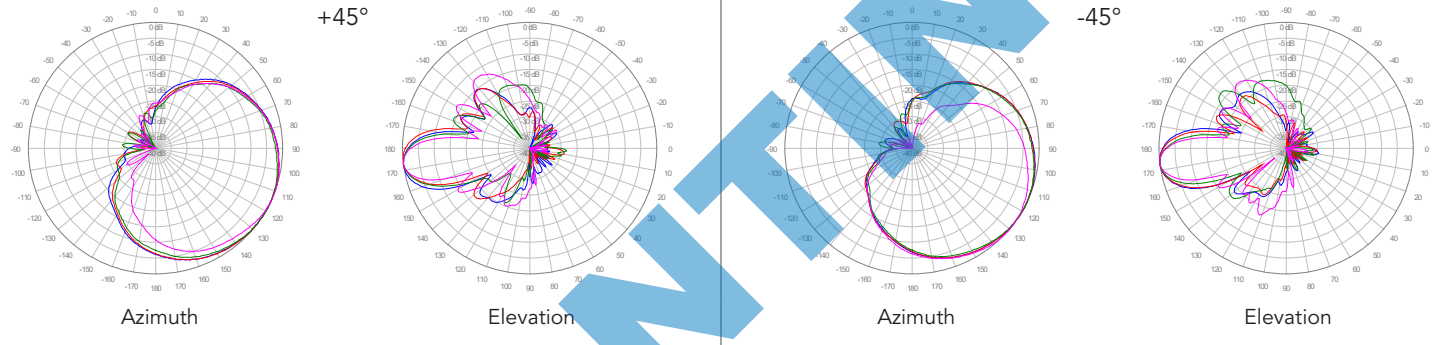
**6U4MTSP1X12FxyS0**

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

**Y5, 6° TILT**



**Y6, 6° TILT**



DISCONTINUED

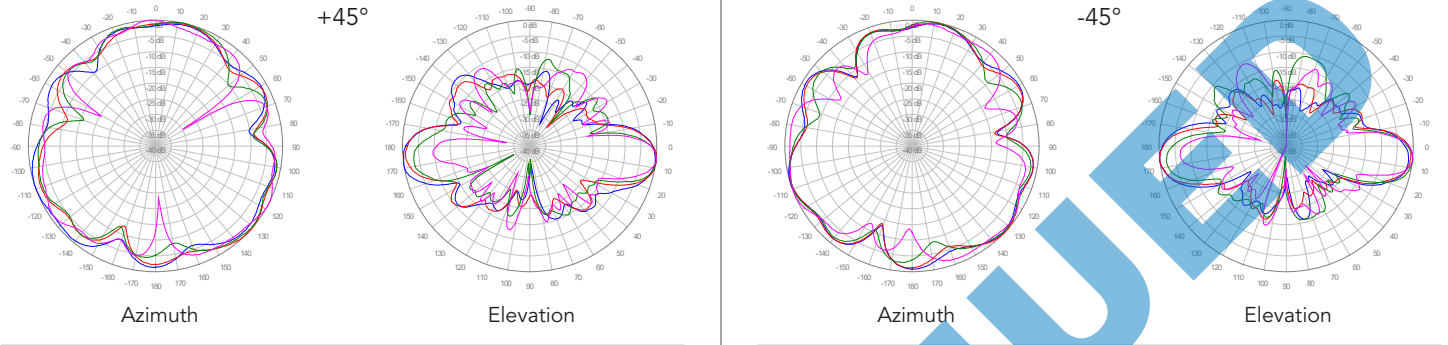
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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



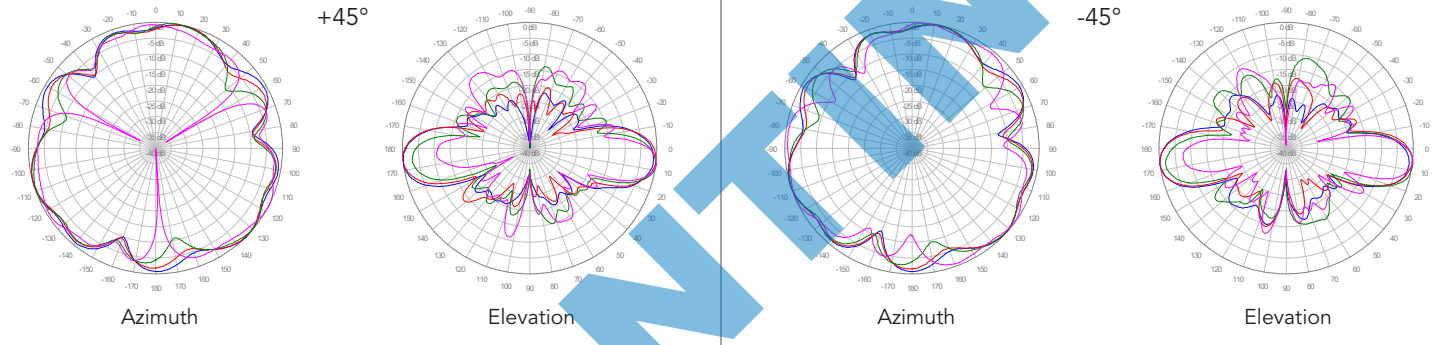
**6U4MTSP1X12FxyS0**

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

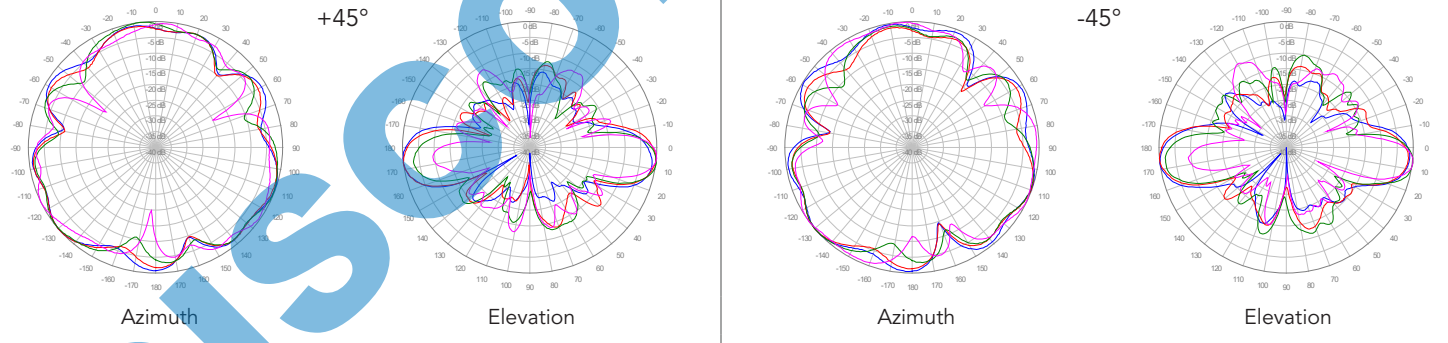
**Y7, 6° TILT**



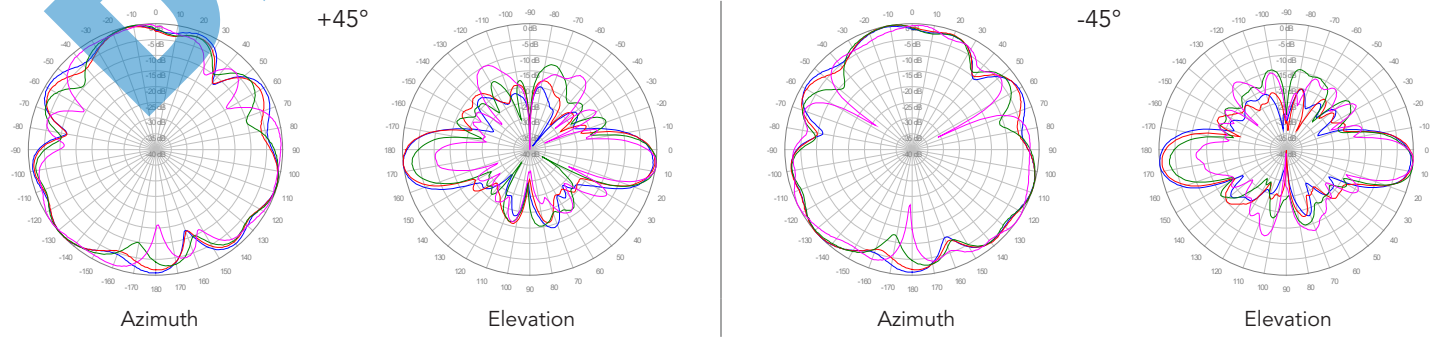
**Y8, 6° TILT**



**Y9, 6° TILT**



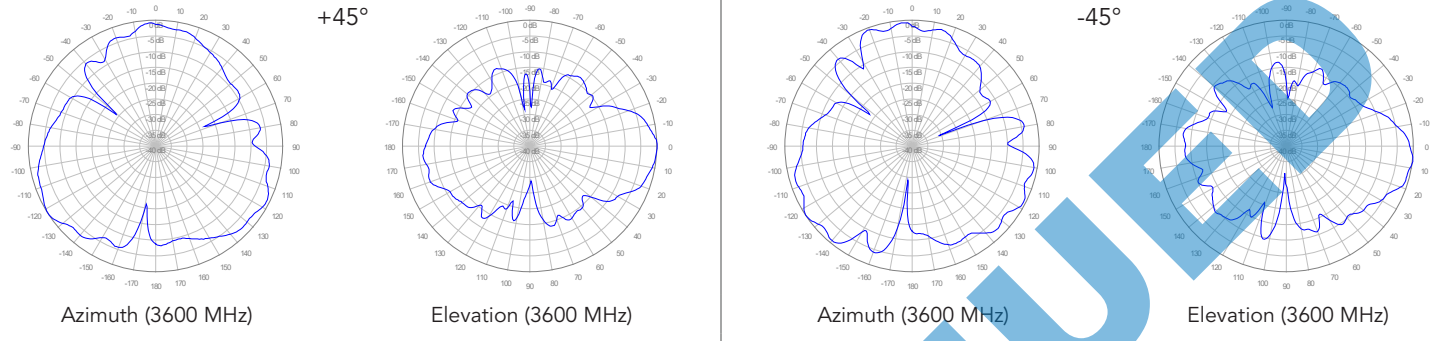
**Y10, 6° TILT**



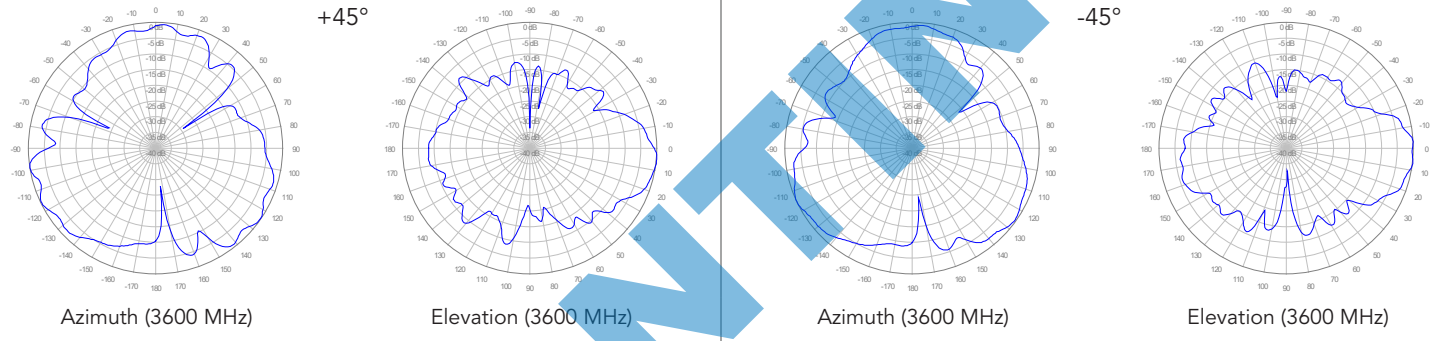
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

**6U4MTSP1X12FxyS0**

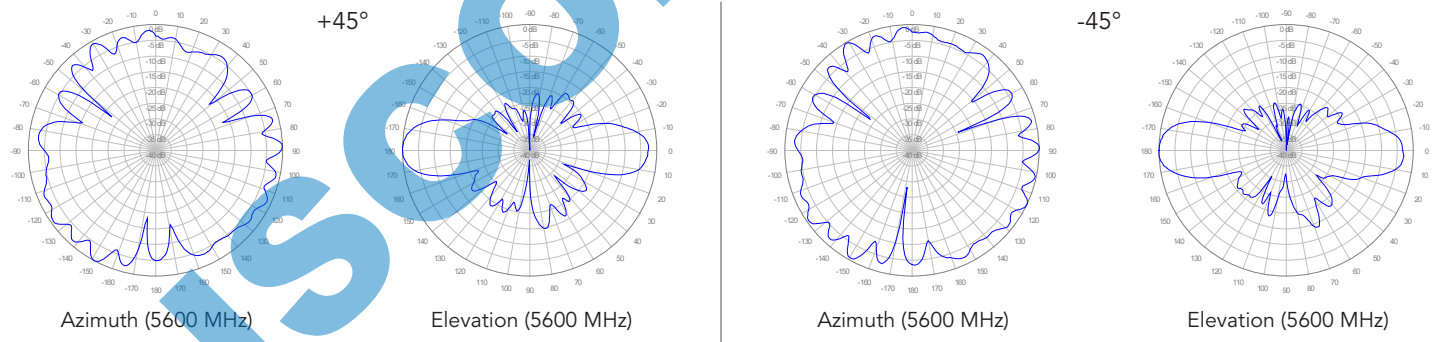
**P1, 0° TILT**



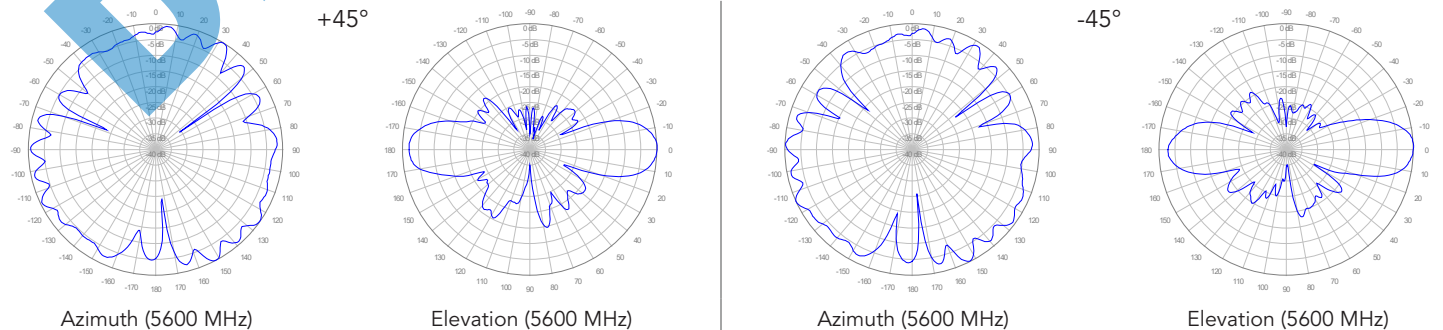
**P2, 0° TILT**



**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.