Amphenol ANTENNA SOLUTIONS

32-Port Panel Antenna

(4x) 617-896 | (6x) 1695-2700 | (6x) 3300-4200 MHz

65° | 48.7 in | FIXED TILT

4L6U6VX065X12Fwxyc5

Features

- Unique high port count panel antenna for 4G/5G small cell applications
- 32 total connectors to service the 617-896, 1695-2700 and 3300-4200 MHz bands
- Ideal for multi-carrier or 4x4 MIMO deployments
- Fixed tilt options

PRODUCT OVERVIEW				
	Frequency Range (MHz)	(4x) 617-896	(6x) 1695-2700	(6x) 3300-4200
	Array	R1, R2 R3, R4	Y1, Y2, Y3 Y4, Y5, Y6	P1, P2, P3 P4, P5, P6
	Connector	8 PORTS	12 PORTS	12 PORTS
	Polarization	XPOL	XPOL	XPOL
	Azimuth Beamwidth (avg)	65°	65°	65°
	Electrical Downtilt	0°	2°, 4°, 6°	2°, 4°, 6°
	Maximum Continuous Power Per Port @ 50° C (122° F)	200 WATTS	100 WATTS	100 WATTS
	Maximum Total Continuous Power at 50° C (122° F)	4000 WATTS		
	Total Connector Count	32 PORTS		
	Connector Type	4.3.-10 FEMALE	2.2-5 FEMALE	2.2-5 FEMALE
	Dimensions	1238 x 521 x 211 mm (48.7 x 20.5 x 8.3)		
	Radome Color Options	GREY		

ELECTRICAL SPECIFICATIONS

			R1 R2 R3 R4	
Frequency Range		MHz	(4x) 617-896	
Frequency Sub-Range		MHz	617-806	806-896
Polarization		---	(4x) ±45°	
Gain	BASTA	dBi	8.7 ± 0.9	8.1 ± 0.7
	MAX	dBi	9.6	8.8
Azimuth Beamwidth (3 dB)		degrees	73.7° ± 7.6°	80.6° ± 8.4°
Elevation Beamwidth (3 dB)		degrees	73.7° ± 19.1°	67.6° ± 16.7°
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	
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28 same band; > 30 different bands	

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.

4L6U6VX065X12Fwxyc5

ELECTRICAL SPECIFICATIONS — Y1 Y2 Y3 Y4 Y5 Y6

Frequency Range		MHz	(6x) 1695-2700			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2700
Polarization		---	(6x) ±45°			
Gain	BASTA	dBi	11.6 ± 1.0	11.9 ± 0.9	11.9 ± 1.1	12.6 ± 1.2
	MAX	dBi	12.6	12.8	13.0	13.8
Azimuth Beamwidth (3 dB)		degrees	69.2° ± 8.2°	67.5° ± 7.8°	67.1° ± 7.7°	67.5° ± 12.0°
Elevation Beamwidth (3 dB)		degrees	26.3° ± 3.0°	23.9° ± 2.1°	22.8° ± 2.9°	19.0° ± 2.4°
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	N/A			
Isolation	Intraband	dB	> 25			
	Interband	dB	> 28 same band; > 30 different bands			

ELECTRICAL SPECIFICATIONS — P1 P2 P3 P4 P5 P6

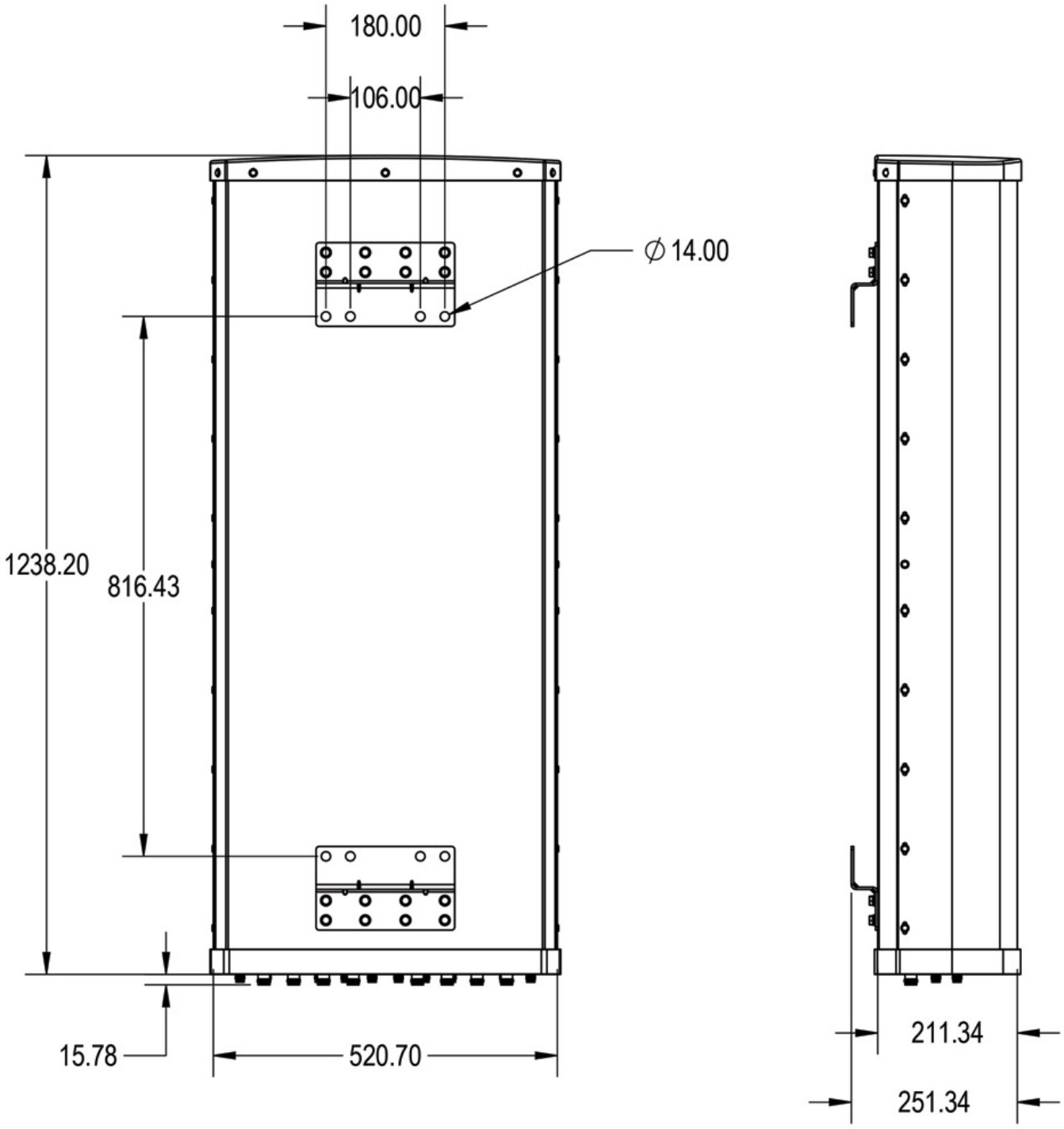
Frequency Range		MHz	(6x) 3300-4200		
Frequency Sub-Range		MHz	3300-3550	3550-3700	3700-4200
Polarization		---	(6x) ±45°		
Gain	BASTA	dBi	13.1 ± 0.8	13.6 ± 1.0	14.6 ± 0.8
	MAX	dBi	13.9	14.6	15.4
Azimuth Beamwidth (3 dB)		degrees	67.7° ± 10.0°	68.6° ± 12.0°	71.9° ± 11.9°
Elevation Beamwidth (3 dB)		degrees	14.4° ± 1.1°	13.0° ± 1.3°	12.5° ± 1.1°
Electrical Downtilt		degrees	(y) 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		
Isolation	Intraband	dB	> 25		
	Interband	dB	> 28 same band; > 30 different bands		

4L6U6VX065X12Fwxyc5

MECHANICAL SPECIFICATIONS

Antenna	Length		mm (in)	1238 (48.7)
	Width		mm (in)	521 (20.5)
	Depth		mm (in)	211 (8.3)
Net Weight - Antenna Only			kg (lbs)	18 (39)
Windload		Calculation	km/h (mph)	160 (100)
		Frontal	N (lbf)	480 (108)
		Side	N (lbf)	285 (64)
Survival Wind Speed			km/h (mph)	241 (150)
Connector		Type	---	4.3-10 Female (low band) and 2.2-5 Female (mid and high bands)
		Quantity	---	32
		Position	---	Bottom
Radome Color			---	Grey
Operating Temperature			degrees	-40 to +60 C (-40 to +140 F)
Lightning Protection (Grounding Type)			---	Direct Ground

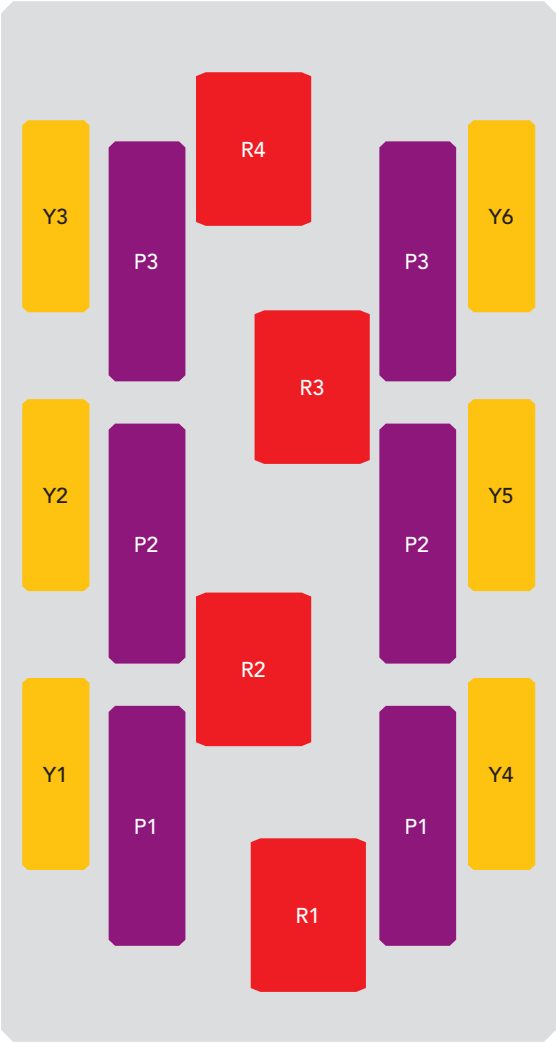
4L6U6VX065X12Fwxyc5



4L6U6VX065X12Fwxyc5

ARRAY LAYOUT Topology

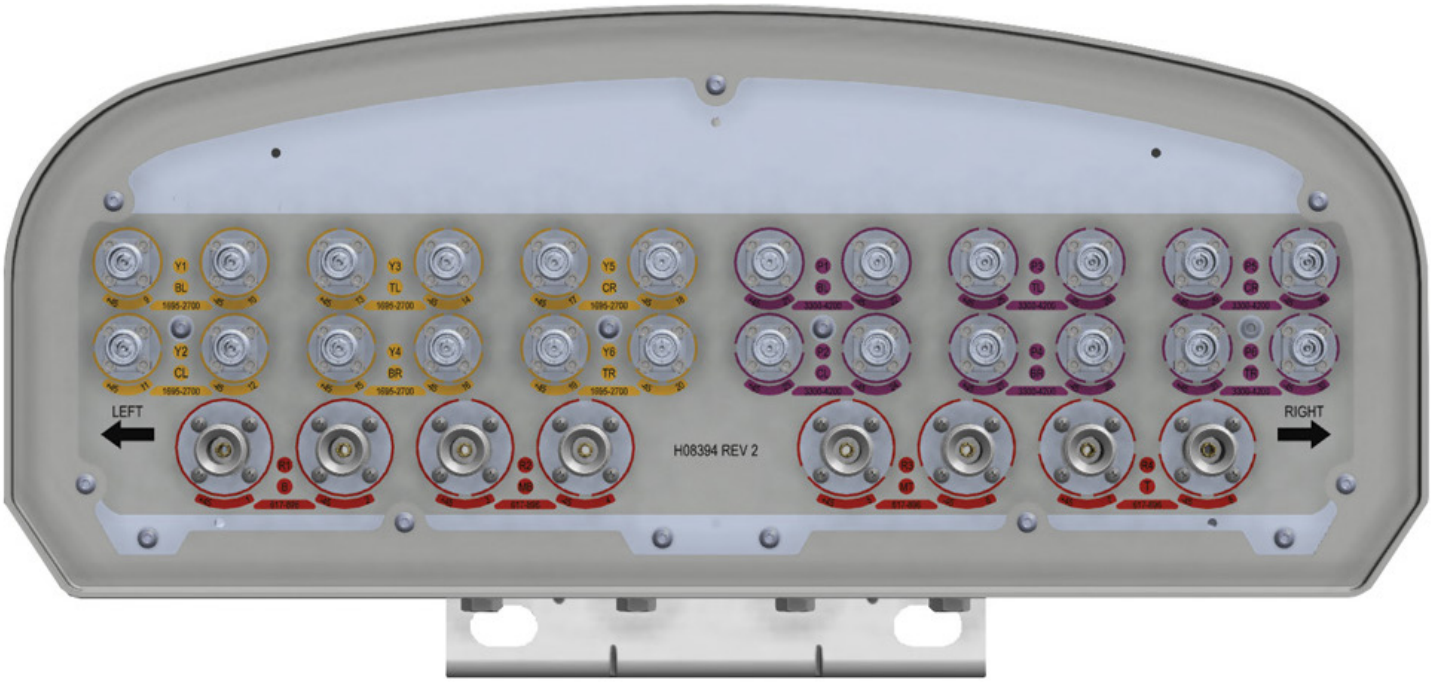
FREQUENCY	ARRAY	CONNECTOR	CONNECTOR TYPE
617-896 MHz	R1	1-2	(2x) 4.3-10 Female
617-896 MHz	R2	3-4	(2x) 4.3-10 Female
617-896 MHz	R3	5-6	(2x) 4.3-10 Female
617-896 MHz	R4	7-8	(2x) 4.3-10 Female
1695-2700 MHz	Y1	9-10	(2x) 2.2-5 Female
1695-2700 MHz	Y2	11-12	(2x) 2.2-5 Female
1695-2700 MHz	Y3	13-14	(2x) 2.2-5 Female
1695-2700 MHz	Y4	15-16	(2x) 2.2-5 Female
1695-2700 MHz	Y5	17-18	(2x) 2.2-5 Female
1695-2700 MHz	Y6	19-20	(2x) 2.2-5 Female
3300-4200 MHz	P1	21-22	(2x) 2.2-5 Female
3300-4200 MHz	P2	23-24	(2x) 2.2-5 Female
3300-4200 MHz	P3	25-26	(2x) 2.2-5 Female
3300-4200 MHz	P4	27-28	(2x) 2.2-5 Female
3300-4200 MHz	P5	29-30	(2x) 2.2-5 Female
3300-4200 MHz	P6	31-32	(2x) 2.2-5 Female



The illustration is not shown to scale.

4L6U6VX065X12Fwxyc5

BOTTOM VIEW - LABELING



MOUNTING KITS Select from the following mounting options when ordering.

MODEL NUMBER	DESCRIPTION	FITS PIPE DIAMETER	WEIGHT
MKS10P01	2-POINT MOUNTING BRACKET KIT	50-115 mm (2.0-4.5 in)	4.8 kg (10.6 lbs)
MKS10T01	2-POINT, SCISSOR TILT, MOUNTING & DOWNTILT BRACKET KIT	50-115 mm (2.0-4.5 in)	7.2 kg (15.8 lbs)

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.

4L6U6VX065X12Fwxyc5

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

NUMBER OF BANDS and OPERATING FREQUENCY			PATTERN TYPE	AZIMUTH BMWDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	ORDERING OPTION
4L	6U	6V	X	065	X	12	F	wxy	c	5	-P -T
(4x) 617-896	(6x) 1695-2700	(6x) 3300-4200	Standard Panel Antenna	65°	XPOL	1.2 meters	Fixed Tilt	These letters are placeholders for fixed tilt options. Refer to Electrical Specifications for available tilt options.	This antenna features a combination of 4.3-10 connectors (low band) and 2.2-5 connectors (mid and high bands)	5th generation enhanced mechanical package	To order the antenna and mounting kit together as one line item, add a -P for the 2-POINT MOUNTING BRACKET KIT (MKS10P01) or a -T for the 2-POINT, SCISSOR TILT, MOUNTING & DOWNTILT BRACKET KIT (MKS10T01) to the end of the model number. If -P or -T is not added, the bracket kit can be added as a separate line item, or the antenna shipped without a bracket. Refer to the ordering options on the following page for further detail.

4L6U6VX065X12Fwxyc5

ORDERING OPTIONS Select from the following ordering options

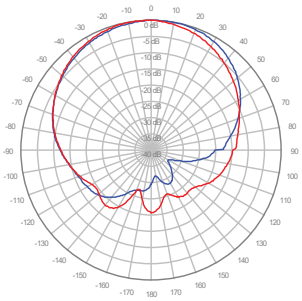
SELECT MOUNTING KIT	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND			ORDER MODEL NUMBER
	617-896 MHz	1695-2700 MHz	3300-4200 MHz	
ANTENNA ONLY - NO MOUNTING KIT	0°	2°	2°	4L6U6VX065X12F022c5
	0°	4°	4°	4L6U6VX065X12F044c5
	0°	6°	6°	4L6U6VX065X12F066c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	2°	4L6U6VX065X12F0A2c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0B2c5
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0C2c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	4°	4L6U6VX065X12F0A4c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0B4c5
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0C4c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	6°	4L6U6VX065X12F0A6c5
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0B6c5
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0C6c5
ANTENNA WITH **MKS10P01** MOUNTING KIT 2-Point Mounting Bracket Kit	0°	2°	2°	4L6U6VX065X12F022c5-P
	0°	4°	4°	4L6U6VX065X12F044c5-P
	0°	6°	6°	4L6U6VX065X12F066c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	2°	4L6U6VX065X12F0A2c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0B2c5-P
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0C2c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	4°	4L6U6VX065X12F0A4c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0B4c5-P
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0C4c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	6°	4L6U6VX065X12F0A6c5-P
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0B6c5-P
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0C6c5-P
ANTENNA WITH **MKS10T01** MOUNTING KIT 2-Point, Scissor Tilt, Mounting & Downtilt Bracket Kit	0°	2°	2°	4L6U6VX065X12F022c5-T
	0°	4°	4°	4L6U6VX065X12F044c5-T
	0°	6°	6°	4L6U6VX065X12F066c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	2°	4L6U6VX065X12F0A2c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0B2c5-T
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	2°	4L6U6VX065X12F0C2c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	4°	4L6U6VX065X12F0A4c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0B4c5-T
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	4°	4L6U6VX065X12F0C4c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 4°	6°	4L6U6VX065X12F0A6c5-T
	0°	Y1 & Y2 = 2°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0B6c5-T
	0°	Y1 & Y2 = 4°; Y3 & Y4 = 6°	6°	4L6U6VX065X12F0C6c5-T

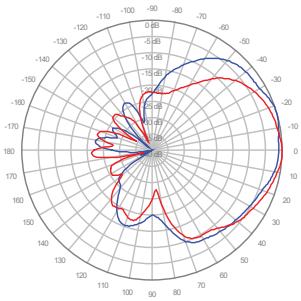
4L6U6VX065X12Fwxyc5

750 MHz
850 MHz

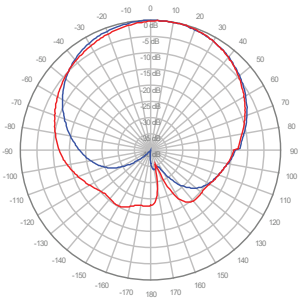
R1, 0° TILT

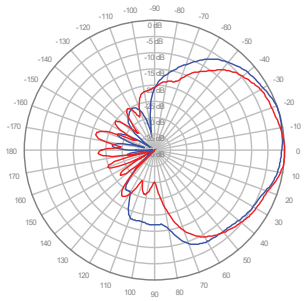
+45°





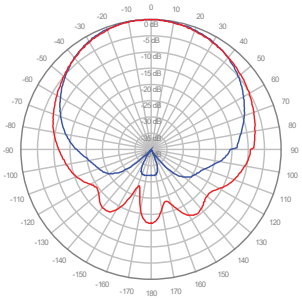
-45°

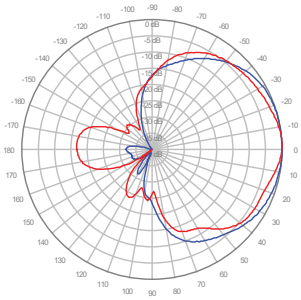




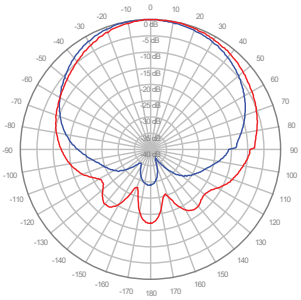
R2, 0° TILT

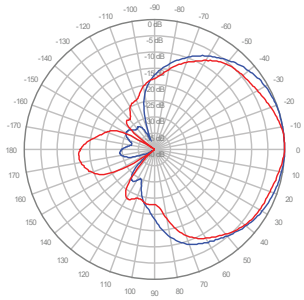
+45°





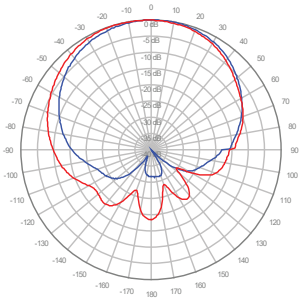
-45°

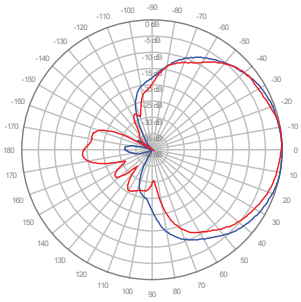




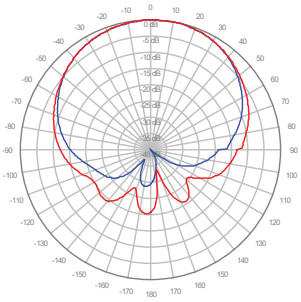
R3, 0° TILT

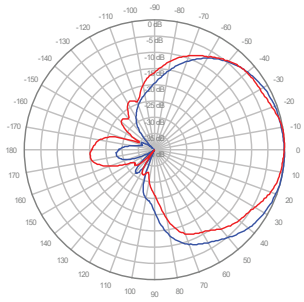
+45°





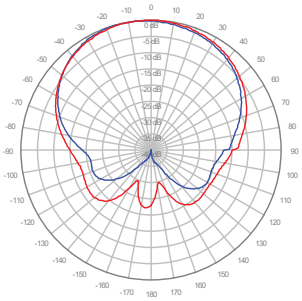
-45°

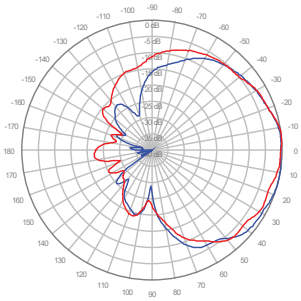




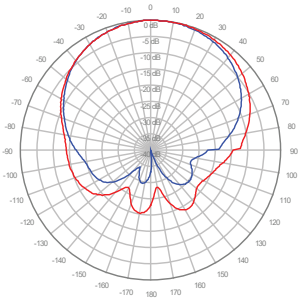
R4, 0° TILT

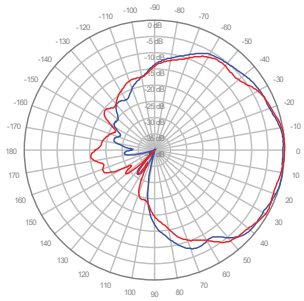
+45°





-45°



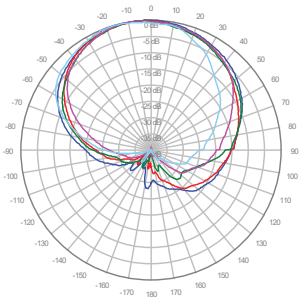


4L6U6VX065X12Fwxyc5

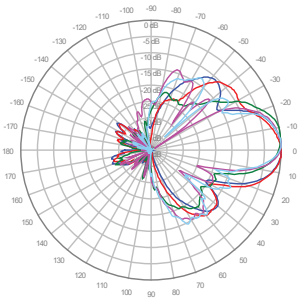
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 2° TILT

+45°

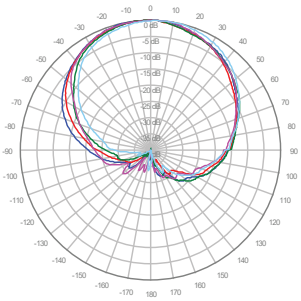


Azimuth

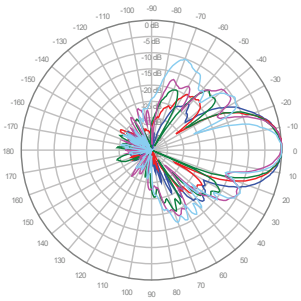


Elevation

-45°



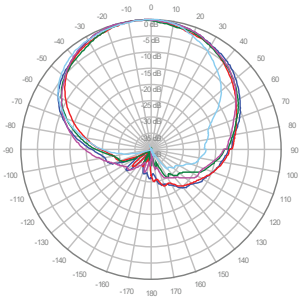
Azimuth



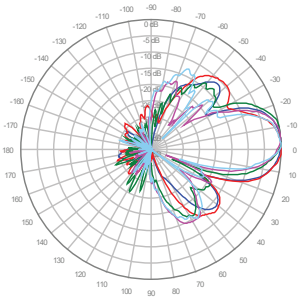
Elevation

Y2, 2° TILT

+45°

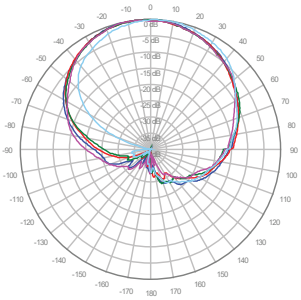


Azimuth

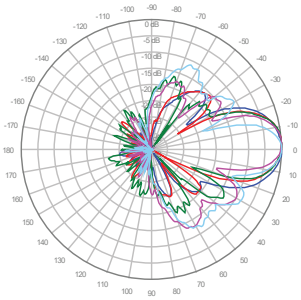


Elevation

-45°



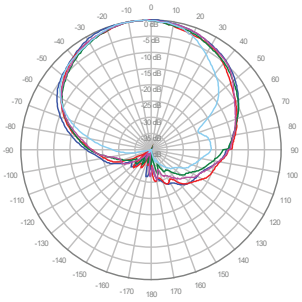
Azimuth



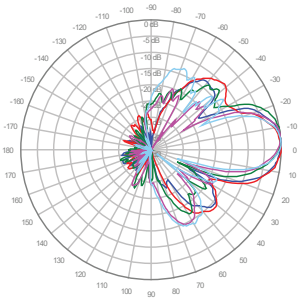
Elevation

Y3, 2° TILT

+45°

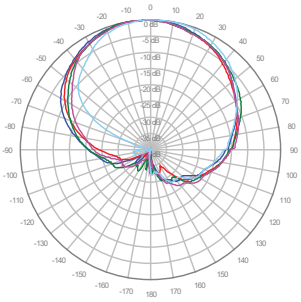


Azimuth

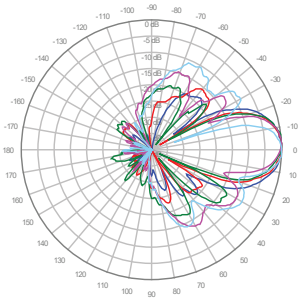


Elevation

-45°



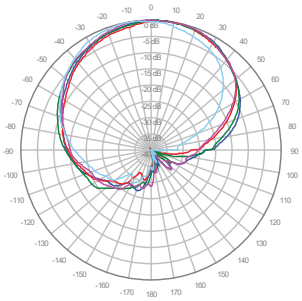
Azimuth



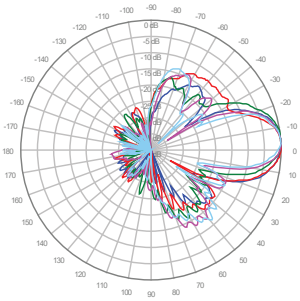
Elevation

Y4, 2° TILT

+45°

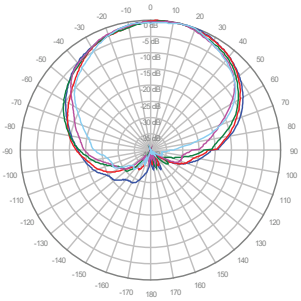


Azimuth

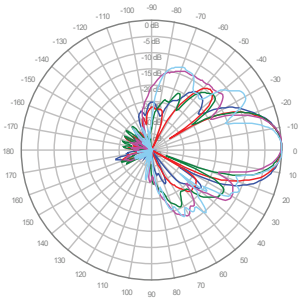


Elevation

-45°



Azimuth



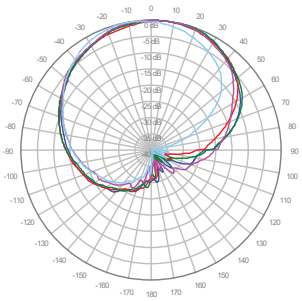
Elevation

4L6U6VX065X12Fwxyc5

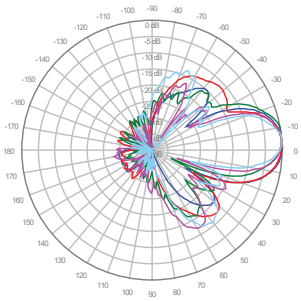
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 2° TILT

+45°

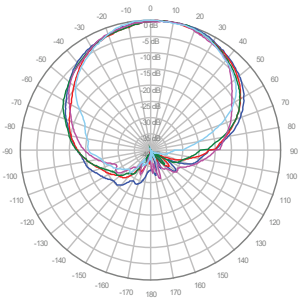


Azimuth

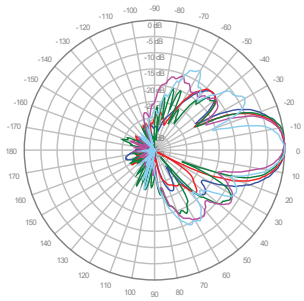


Elevation

-45°



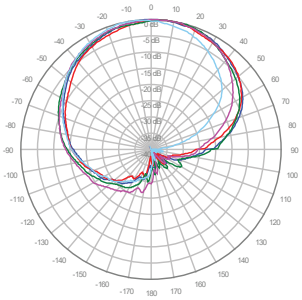
Azimuth



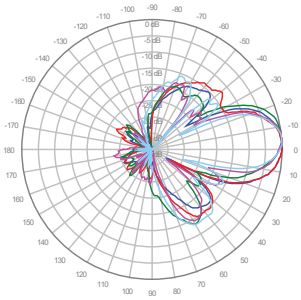
Elevation

Y6, 2° TILT

+45°

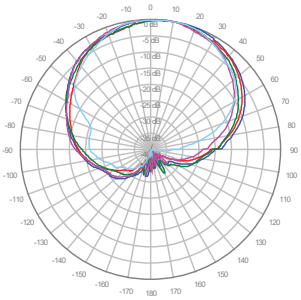


Azimuth

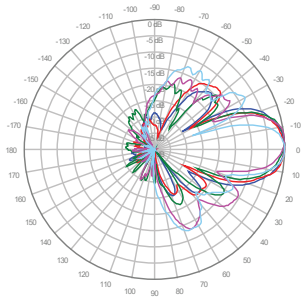


Elevation

-45°



Azimuth



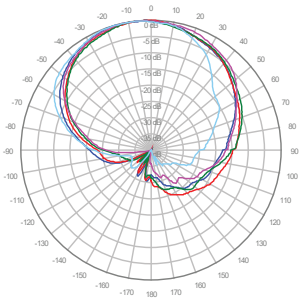
Elevation

4L6U6VX065X12Fwxyc5

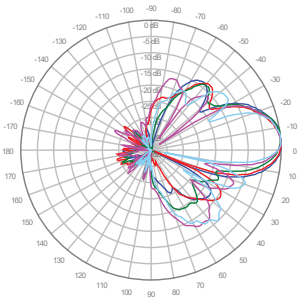
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 4° TILT

+45°

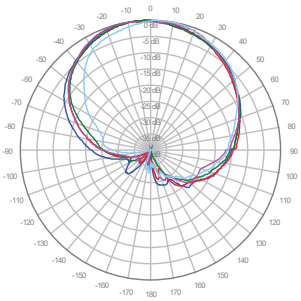


Azimuth

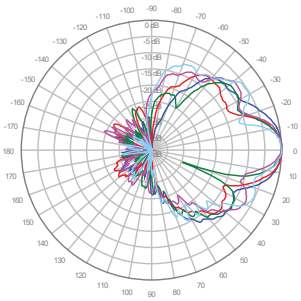


Elevation

-45°



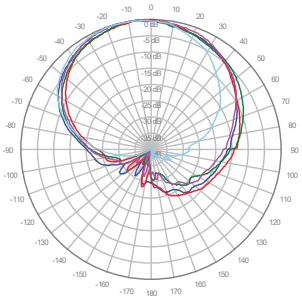
Azimuth



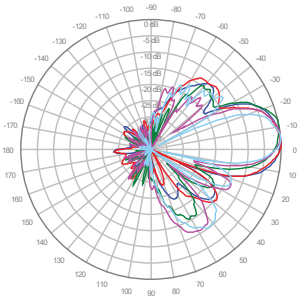
Elevation

Y2, 4° TILT

+45°

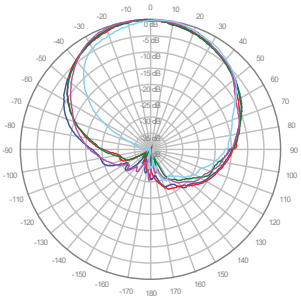


Azimuth

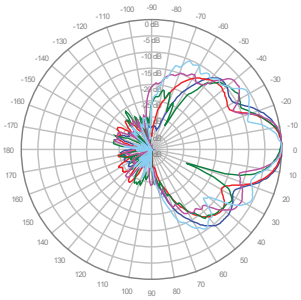


Elevation

-45°



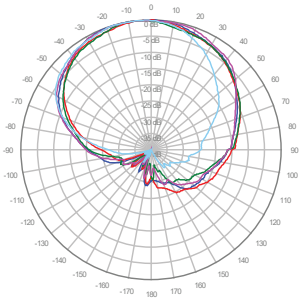
Azimuth



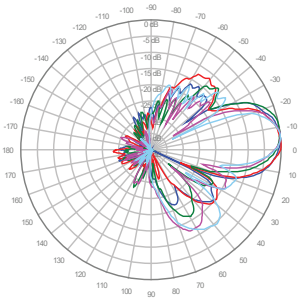
Elevation

Y3, 4° TILT

+45°

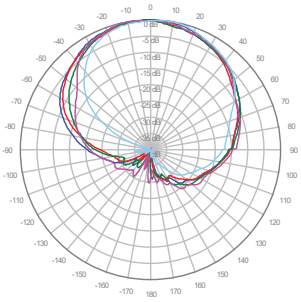


Azimuth

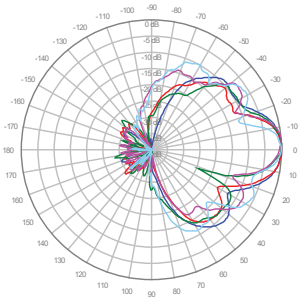


Elevation

-45°



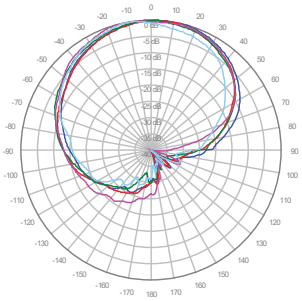
Azimuth



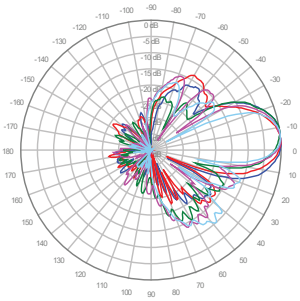
Elevation

Y4, 4° TILT

+45°

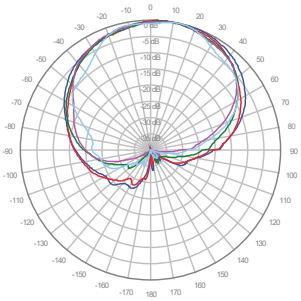


Azimuth

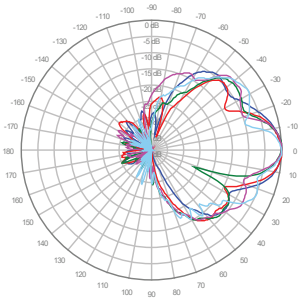


Elevation

-45°



Azimuth



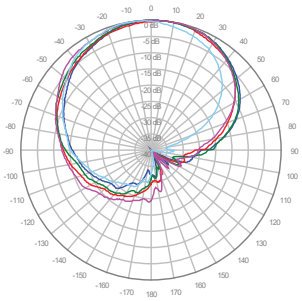
Elevation

4L6U6VX065X12Fwxyc5

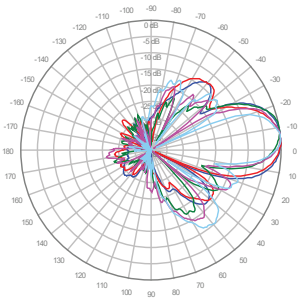
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 4° TILT

+45°

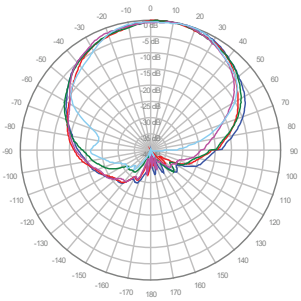


Azimuth

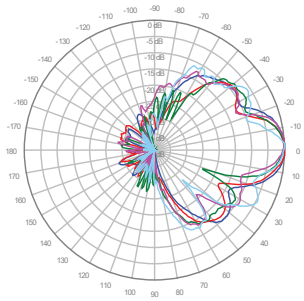


Elevation

-45°



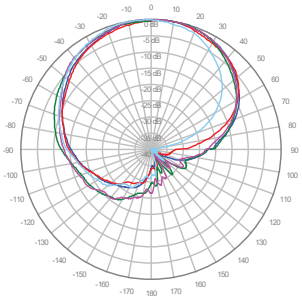
Azimuth



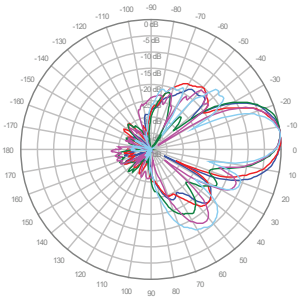
Elevation

Y6, 4° TILT

+45°

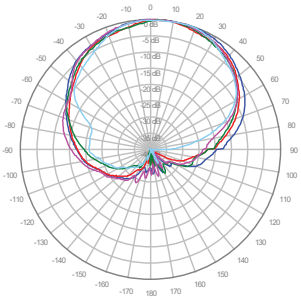


Azimuth

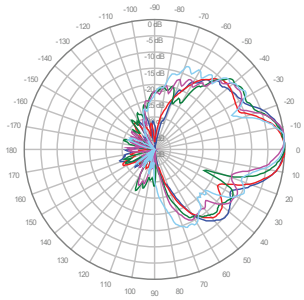


Elevation

-45°



Azimuth



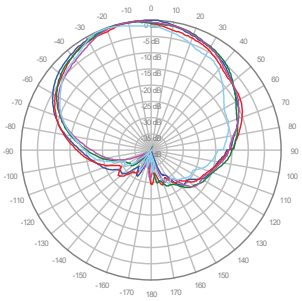
Elevation

4L6U6VX065X12Fwxyc5

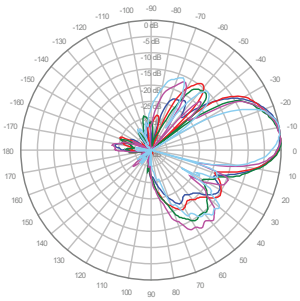
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y1, 6° TILT

+45°

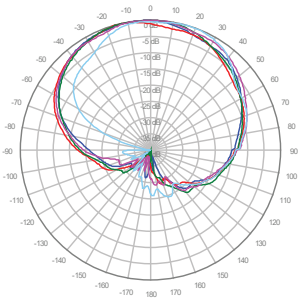


Azimuth

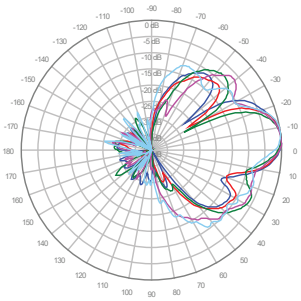


Elevation

-45°



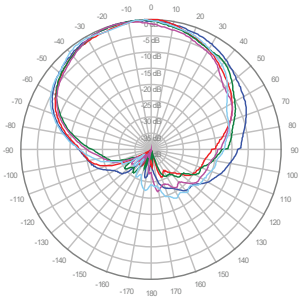
Azimuth



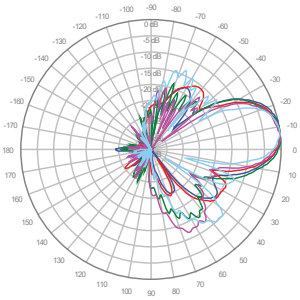
Elevation

Y2, 6° TILT

+45°

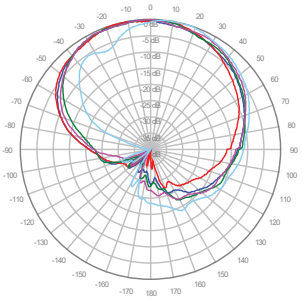


Azimuth

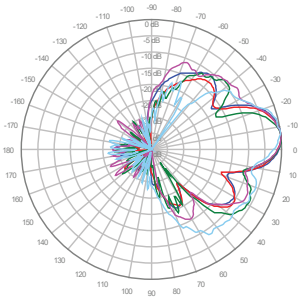


Elevation

-45°



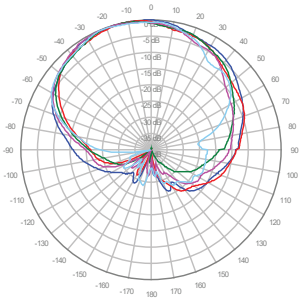
Azimuth



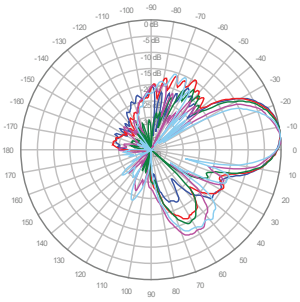
Elevation

Y3, 6° TILT

+45°

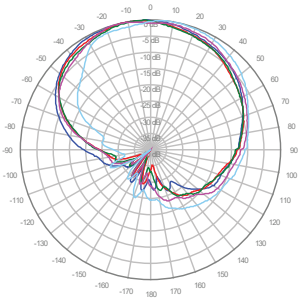


Azimuth

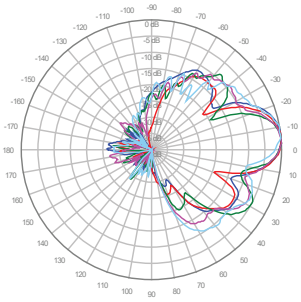


Elevation

-45°



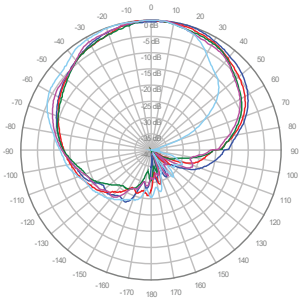
Azimuth



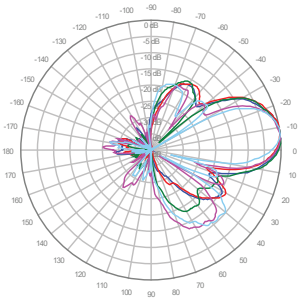
Elevation

Y4, 6° TILT

+45°

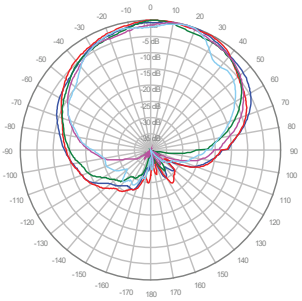


Azimuth

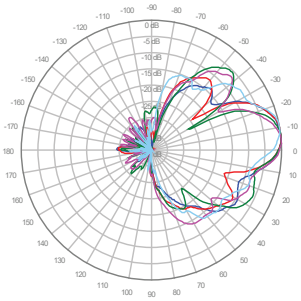


Elevation

-45°



Azimuth



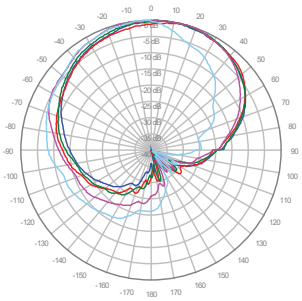
Elevation

4L6U6VX065X12Fwxyc5

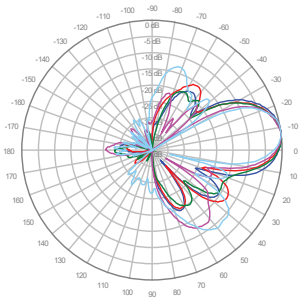
1800 MHz
1900 MHz
2100 MHz
2300 MHz
2600 MHz

Y5, 6° TILT

+45°

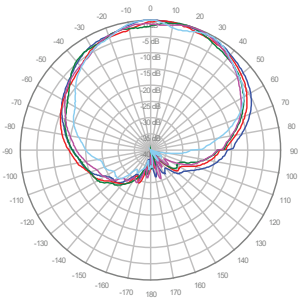


Azimuth

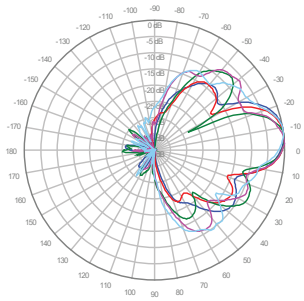


Elevation

-45°



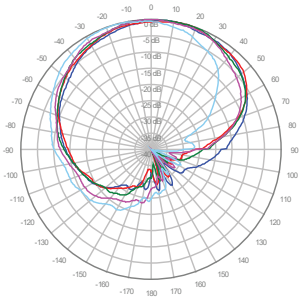
Azimuth



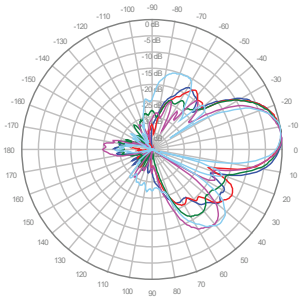
Elevation

Y6, 6° TILT

+45°

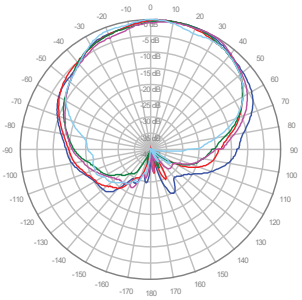


Azimuth

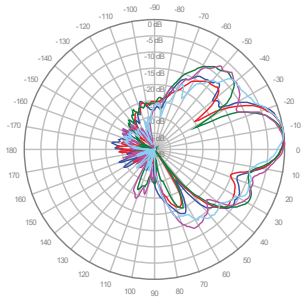


Elevation

-45°



Azimuth



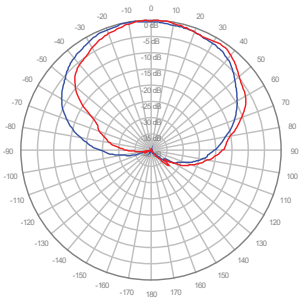
Elevation

4L6U6VX065X12Fwxyc5

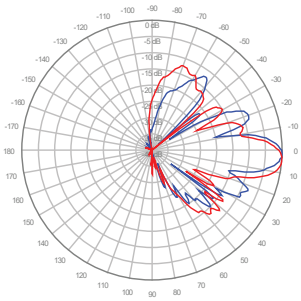
3600 MHz
4000 MHz

P1, 2° TILT

+45°

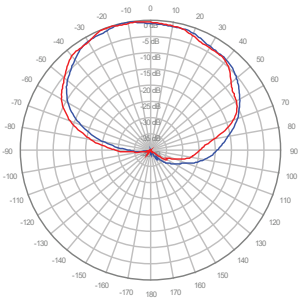


Azimuth

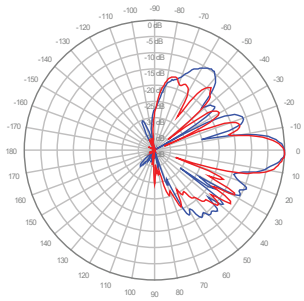


Elevation

-45°



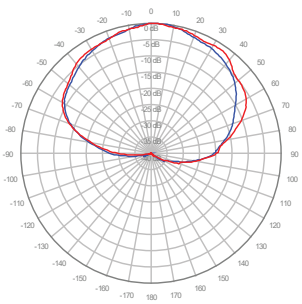
Azimuth



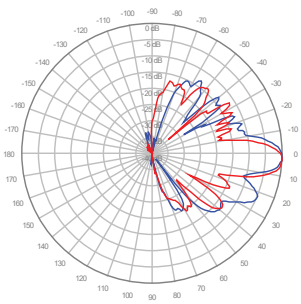
Elevation

P2, 2° TILT

+45°

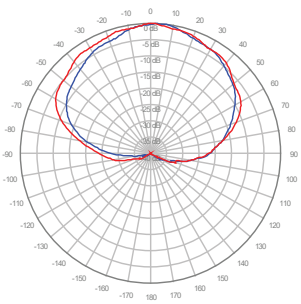


Azimuth

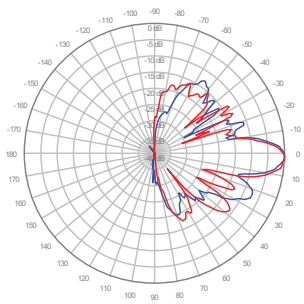


Elevation

-45°



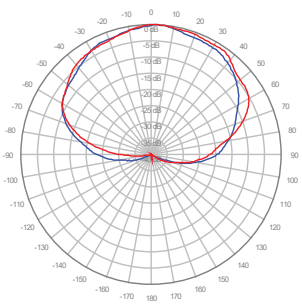
Azimuth



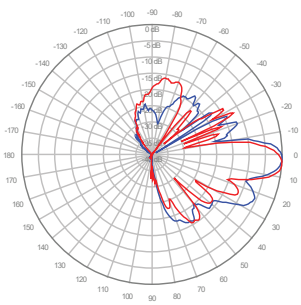
Elevation

P3, 2° TILT

+45°

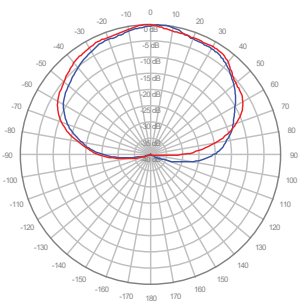


Azimuth

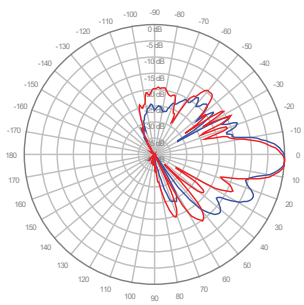


Elevation

-45°



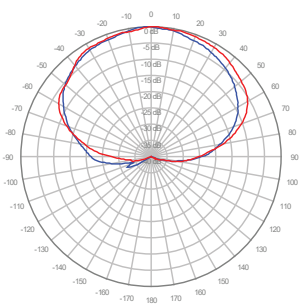
Azimuth



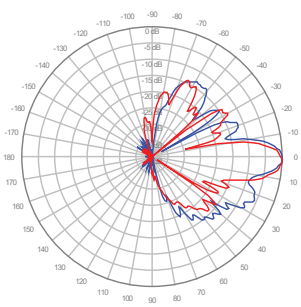
Elevation

P4, 2° TILT

+45°

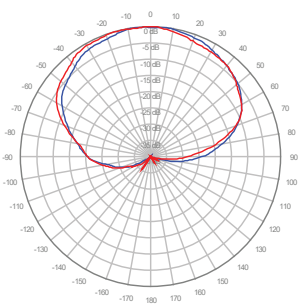


Azimuth

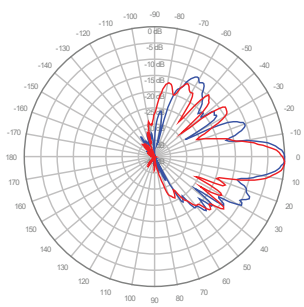


Elevation

-45°



Azimuth



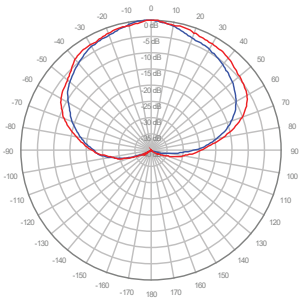
Elevation

4L6U6VX065X12Fwxyc5

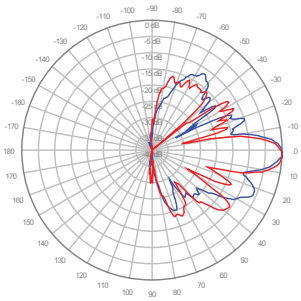
3600 MHz
4000 MHz

P5, 2° TILT

+45°

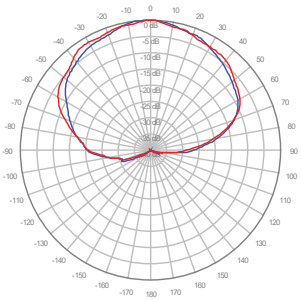


Azimuth

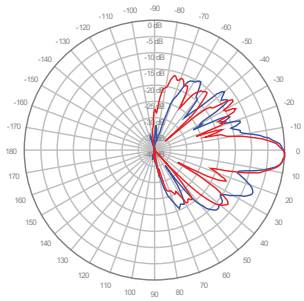


Elevation

-45°



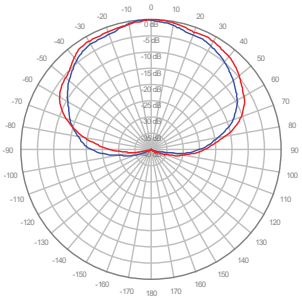
Azimuth



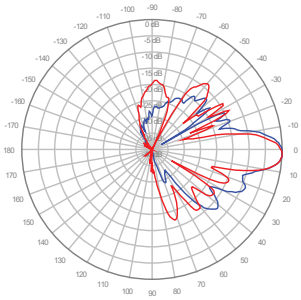
Elevation

P6, 2° TILT

+45°

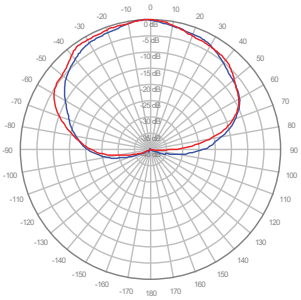


Azimuth

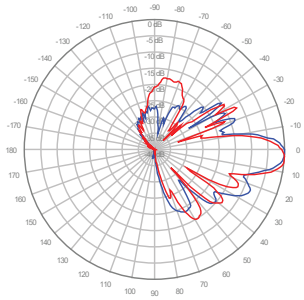


Elevation

-45°



Azimuth



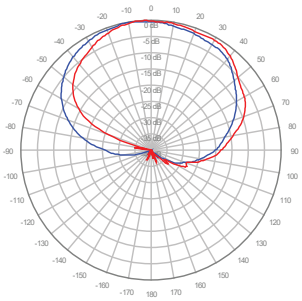
Elevation

4L6U6VX065X12Fwxyc5

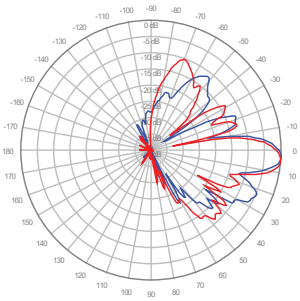
3600 MHz
4000 MHz

P1, 4° TILT

+45°

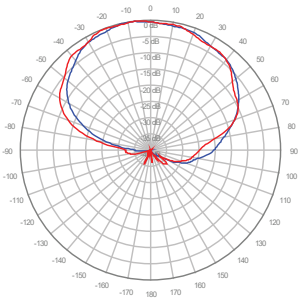


Azimuth

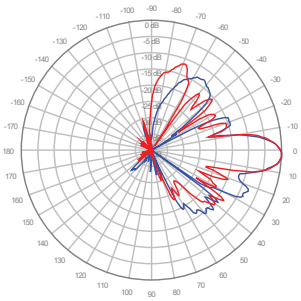


Elevation

-45°



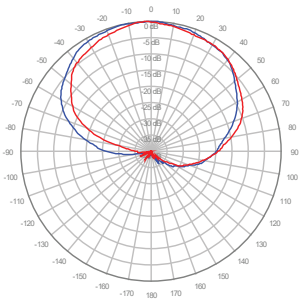
Azimuth



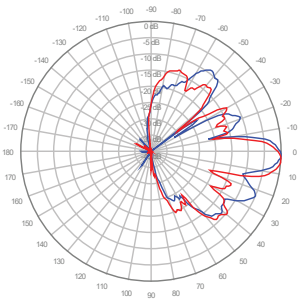
Elevation

P2, 4° TILT

+45°

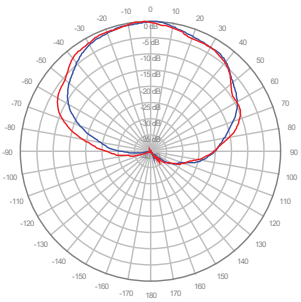


Azimuth

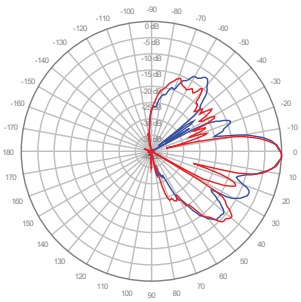


Elevation

-45°



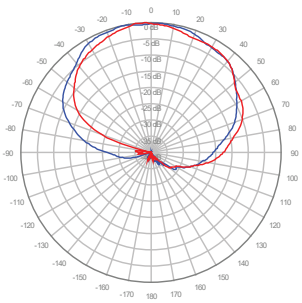
Azimuth



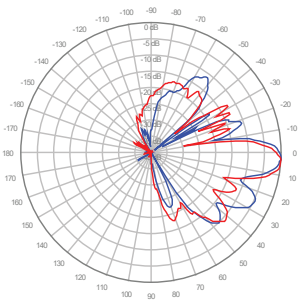
Elevation

P3, 4° TILT

+45°

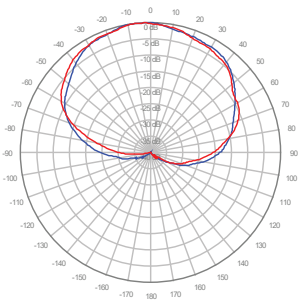


Azimuth

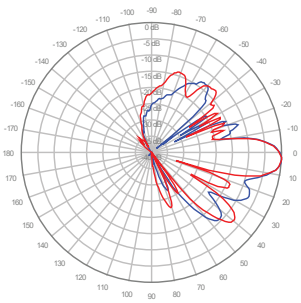


Elevation

-45°



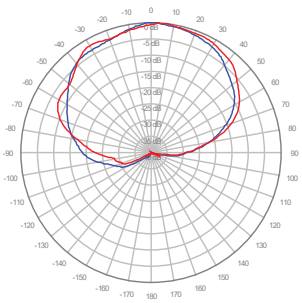
Azimuth



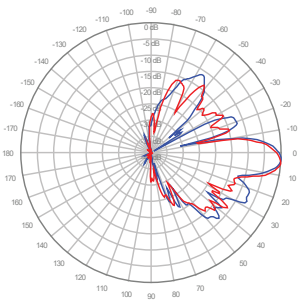
Elevation

P4, 4° TILT

+45°

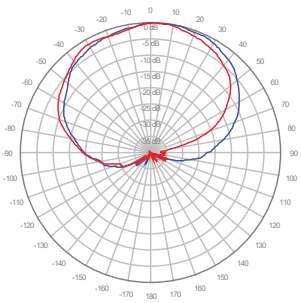


Azimuth

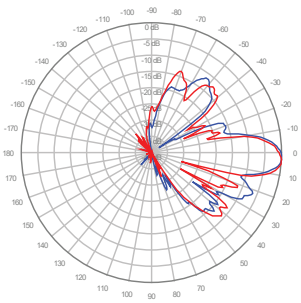


Elevation

-45°



Azimuth



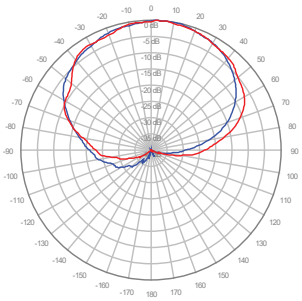
Elevation

4L6U6VX065X12Fwxyc5

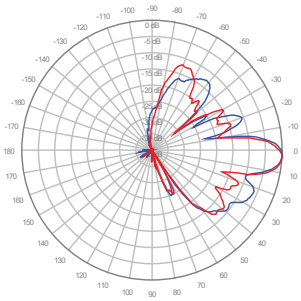
3600 MHz
4000 MHz

P5, 4° TILT

+45°

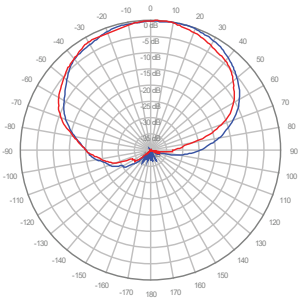


Azimuth

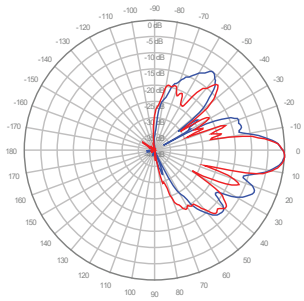


Elevation

-45°



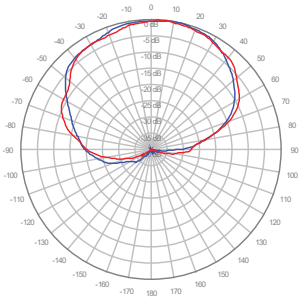
Azimuth



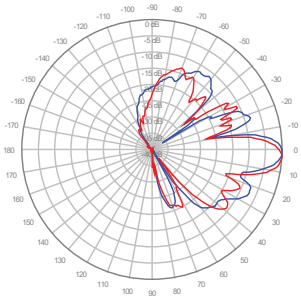
Elevation

P6, 4° TILT

+45°

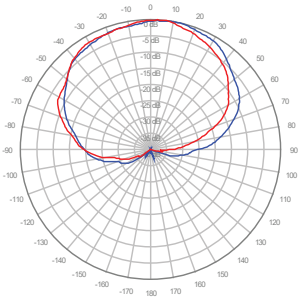


Azimuth

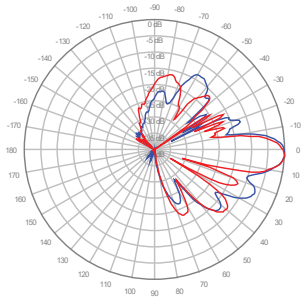


Elevation

-45°



Azimuth



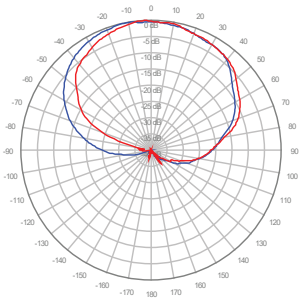
Elevation

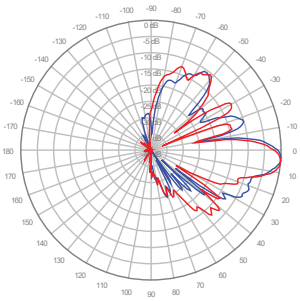
4L6U6VX065X12Fwxyc5

3600 MHz
4000 MHz

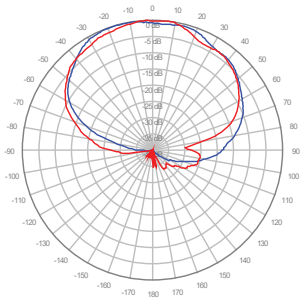
P1, 6° TILT

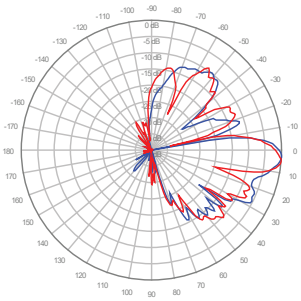
+45°


Azimuth


Elevation

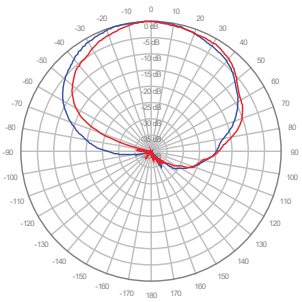
-45°

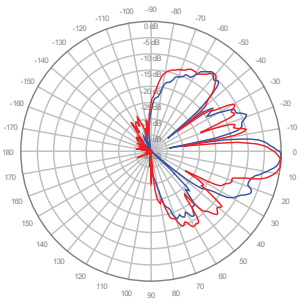

Azimuth


Elevation

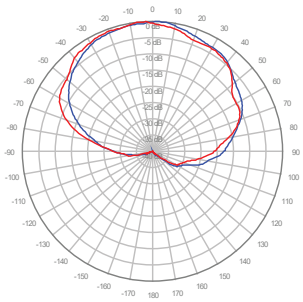
P2, 6° TILT

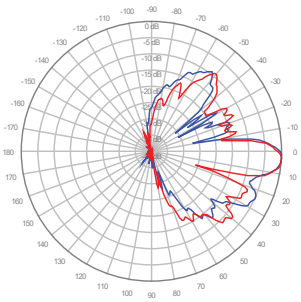
+45°


Azimuth


Elevation

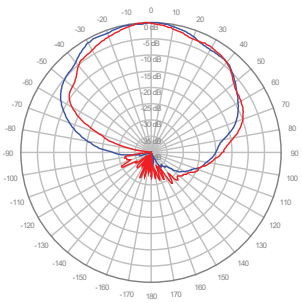
-45°

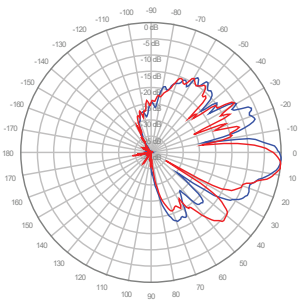

Azimuth


Elevation

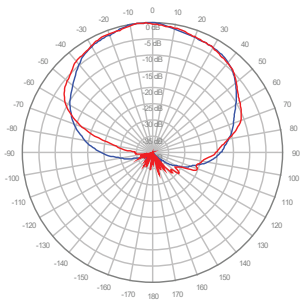
P3, 6° TILT

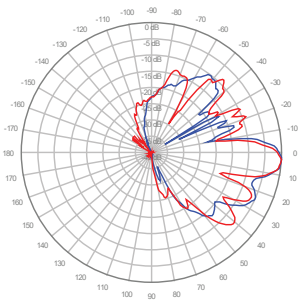
+45°


Azimuth


Elevation

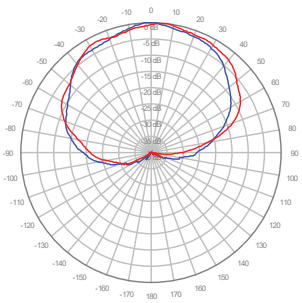
-45°

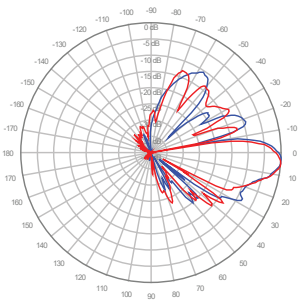

Azimuth


Elevation

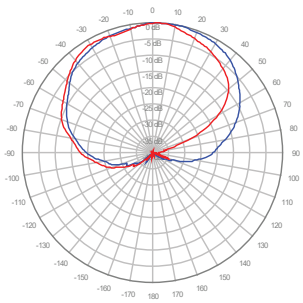
P4, 6° TILT

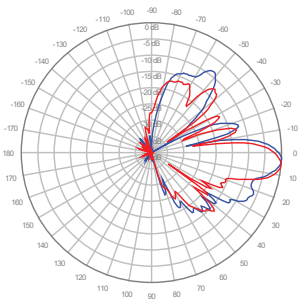
+45°


Azimuth


Elevation

-45°


Azimuth

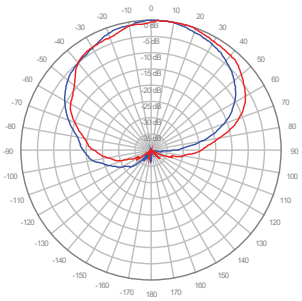

Elevation

4L6U6VX065X12Fwxyc5

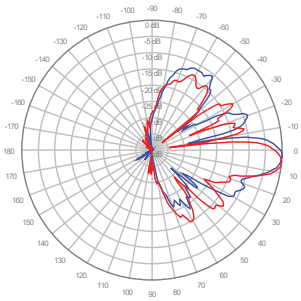
3600 MHz
4000 MHz

P5, 6° TILT

+45°

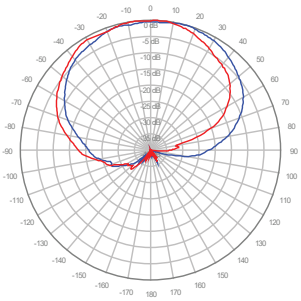


Azimuth

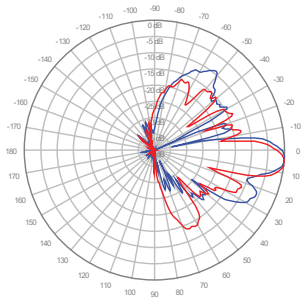


Elevation

-45°



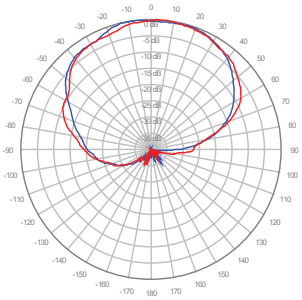
Azimuth



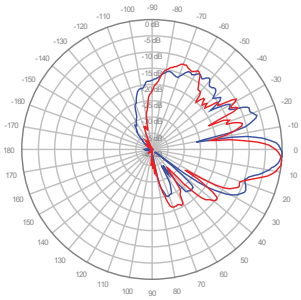
Elevation

P6, 6° TILT

+45°

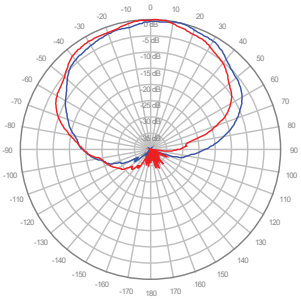


Azimuth

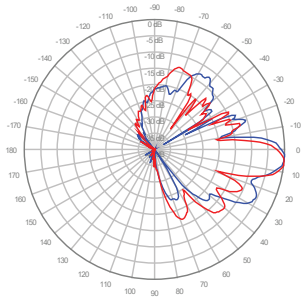


Elevation

-45°



Azimuth



Elevation