

2C4U3MX065X06Fwxys0



Features

- Fixed tilt panel antenna with 18 connectors
- Ultra-wide band performance
- Ideal solution for Small Cell applications
- This antenna meets the requirements of the U-NII

PRODUCT OVERVIEW	Frequency Range (MHz)	LOW		MID				CBRS		LAA
		(2x) 696-960		(4x) 1695-2700				(2x) 3550-3700		(1x) 5150-5925
	Array	■ R1	■ R2	■ Y1	■ Y2	■ Y3	■ Y4	■ P1	■ P2	■ O1
	Connector	4 PORTS		8 PORTS				4 PORTS		2 PORTS
	Polarization	XPOL		XPOL				XPOL		XPOL
	Azimuth Beamwidth (avg)	65°		65°				65°		65°
	Electrical Downtilt	0°		2°, 4°, 6°				0°		0°
	Total Connector Count	18 PORTS								
	Connector Type	4.3-10 FEMALE								
	Dimensions	633 x 343 x 246 mm (24.9 x 13.5 x 9.7)								

ELECTRICAL SPECIFICATIONS Low Band

■ R1 ■ R2

Frequency Range		MHz	(2x) 696-960	
Frequency Sub-Range		MHz	696-806	806-960
Polarization		---	(2x) ±45°	
Gain	BASTA	dBi	7.8 ± 0.6	7.8 ± 0.9
	MAX	dBi	8.4	8.7
Azimuth Beamwidth (3 dB)		degrees	85.4° ± 9.1°	81.8° ± 16.3°
Elevation Beamwidth (3 dB)		degrees	70.8° ± 12.9°	65.9° ± 16.2°
Electrical Downtilt		degrees	(w) 0°	
Impedance		Ohms	50	
VSWR		---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	< -153	
Upper Sidelobe Suppression		dB	N/A	
Maximum Power Per Port		Watts	(4x) 500	
Isolation	Intraband	dB	> 25	
	Interband	dB	> 28	

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.

2C4U3MX065X06Fwxys0

ELECTRICAL SPECIFICATIONS Mid Band

■ Y1 ■ Y2 ■ Y3 ■ Y4

Frequency Range	MHz	(4x) 1695-2700				
Frequency Sub-Range	MHz	1695-1880	1850-1990	1920-2200	2300-2700	
Polarization	---	(4x) ±45°				
Gain	BASTA	dBi	10.9 ± 0.5	10.7 ± 0.6	10.9 ± 0.8	11.6 ± 1.0
	MAX	dBi	11.4	11.3	11.7	12.6
Azimuth Beamwidth (3 dB)	degrees	72.9° ± 10.3°	75.4° ± 6.1°	71.1° ± 10.9°	58.9° ± 13.7°	
Elevation Beamwidth (3 dB)	degrees	37.4° ± 4.2°	35.3° ± 3.8°	33.0° ± 4.5°	27.9° ± 4.2°	
Electrical Downtilt	degrees	(x) 2°, 4°, 6°				
Impedance	Ohms	50				
VSWR	---	≤ 1.5:1				
Passive Intermodulation 3rd Order for 2x20 W Carriers	dBc	< -153				
Upper Sidelobe Suppression	dB	N/A				
Maximum Power Per Port	Watts	(8x) 300 W				
Isolation	Intraband	dB	> 25	> 25	> 25	> 25
	Interband	dB	> 28	> 28	> 28	> 28

ELECTRICAL SPECIFICATIONS CBRS Band

■ P1 ■ P2

Frequency Range	MHz	(2x) 3550-3700	
Polarization	---	(2x) ±45°	
Gain	BASTA	dBi	8.2 ± 0.7
	MAX	dBi	8.9
Azimuth Beamwidth (3 dB)	degrees	72.9°±7.0°	
Elevation Beamwidth (3 dB)	degrees	40.9°±4.5°	
Electrical Downtilt	degrees	(y) 0°	
Impedance	Ohms	50	
VSWR	---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers	dBc	N/A	
Upper Sidelobe Suppression	dB	N/A	
Maximum Power Per Port	Watts	(4x) 100	
Isolation	Intraband	dB	> 25
	Interband	dB	> 28

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.

2C4U3MX065X06Fwxys0

ELECTRICAL SPECIFICATIONS LAA Band

■ O1

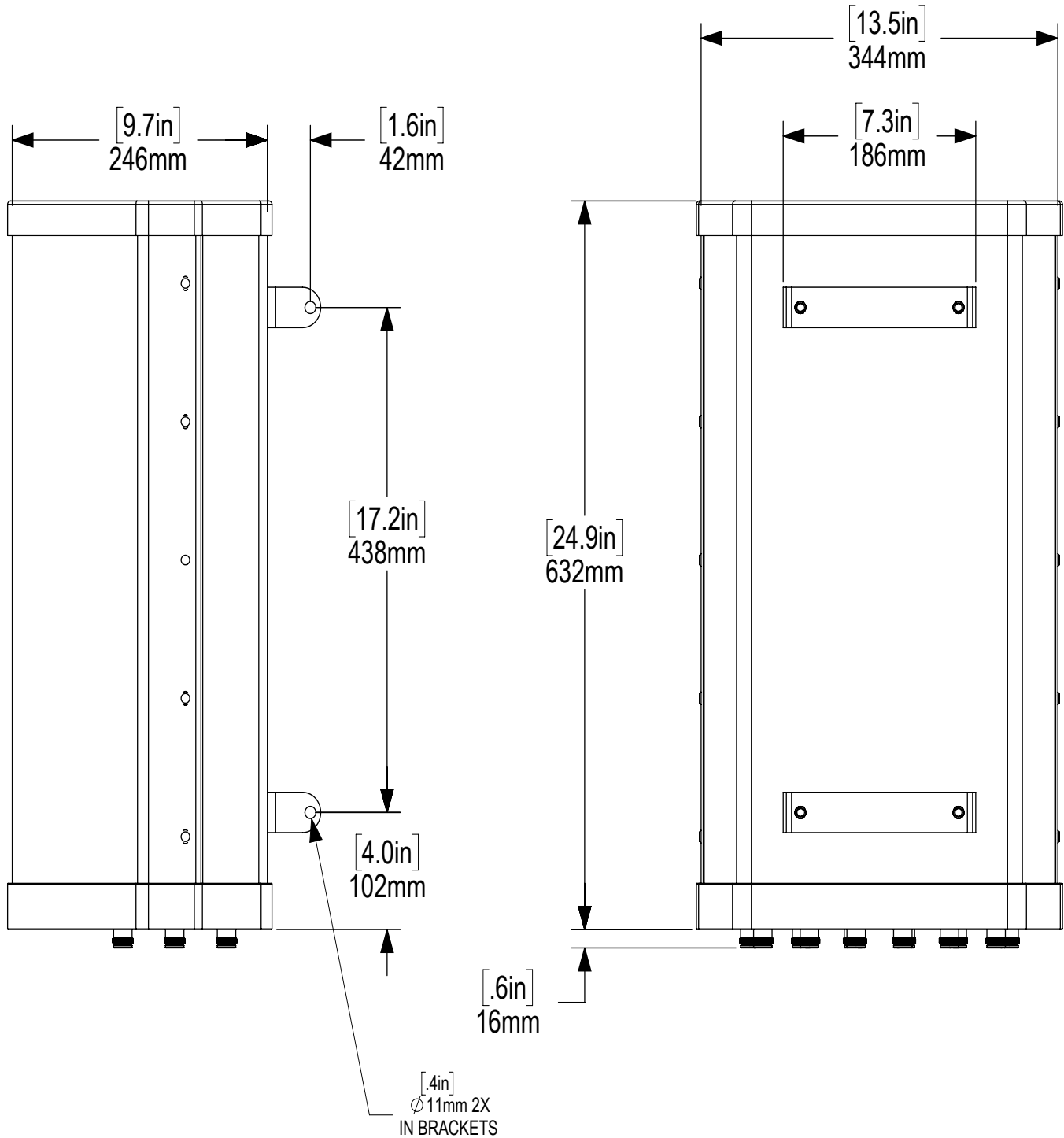
Frequency Range	MHz	(1x) 5150-5925	
Polarization	---	±45°	
Gain	BASTA	dBi	4.6 ± 0.7
	MAX	dBi	5.3
Azimuth Beamwidth (3 dB)	degrees	69.6° ± 17.7°	
Elevation Beamwidth (3 dB)	degrees	23.2° ± 2.4°	
Electrical Downtilt	degrees	(y) 0°	
Impedance	Ohms	50	
VSWR	---	≤ 1.5:1	
Passive Intermodulation 3rd Order for 2x20 W Carriers	dBm (dBc)	N/A	
Upper Sidelobe Suppression	dB	U-NII Compliant	
Maximum Power Per Port	Watts	(2x) 50	
Isolation	Intraband	dB	> 25
	Interband	dB	> 28

MECHANICAL SPECIFICATIONS

Antenna	Length	mm (in)	633 (24.9)
	Width	mm (in)	343 (13.5)
	Depth	mm (in)	246 (9.7)
Net Weight - Antenna Only		kg (lbs)	7.3 (16)
Windload	Calculation	km/h (mph)	160 (100)
	Frontal	N (lbf)	262 (59)
	Side	N (lbf)	107 (24)
Survival Wind Speed		km/h (mph)	241 (150)
Wind Area		m ² (ft ²)	0.21 (2.3)
Connector	Type	---	4.3-10 Female
	Quantity	---	18
	Position	---	Bottom
Radome Color		---	Grey
Operating Temperature		degrees	-40 to +60 C (-40 to +140 F)
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.

2C4U3MX065X06Fwxys0



SIDE VIEW

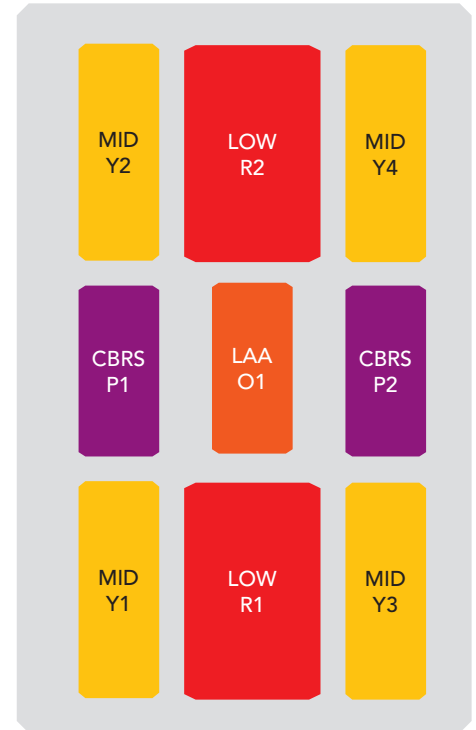
BOTTOM VIEW

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.

2C4U3MX065X06Fwxys0

ARRAY LAYOUT Topology

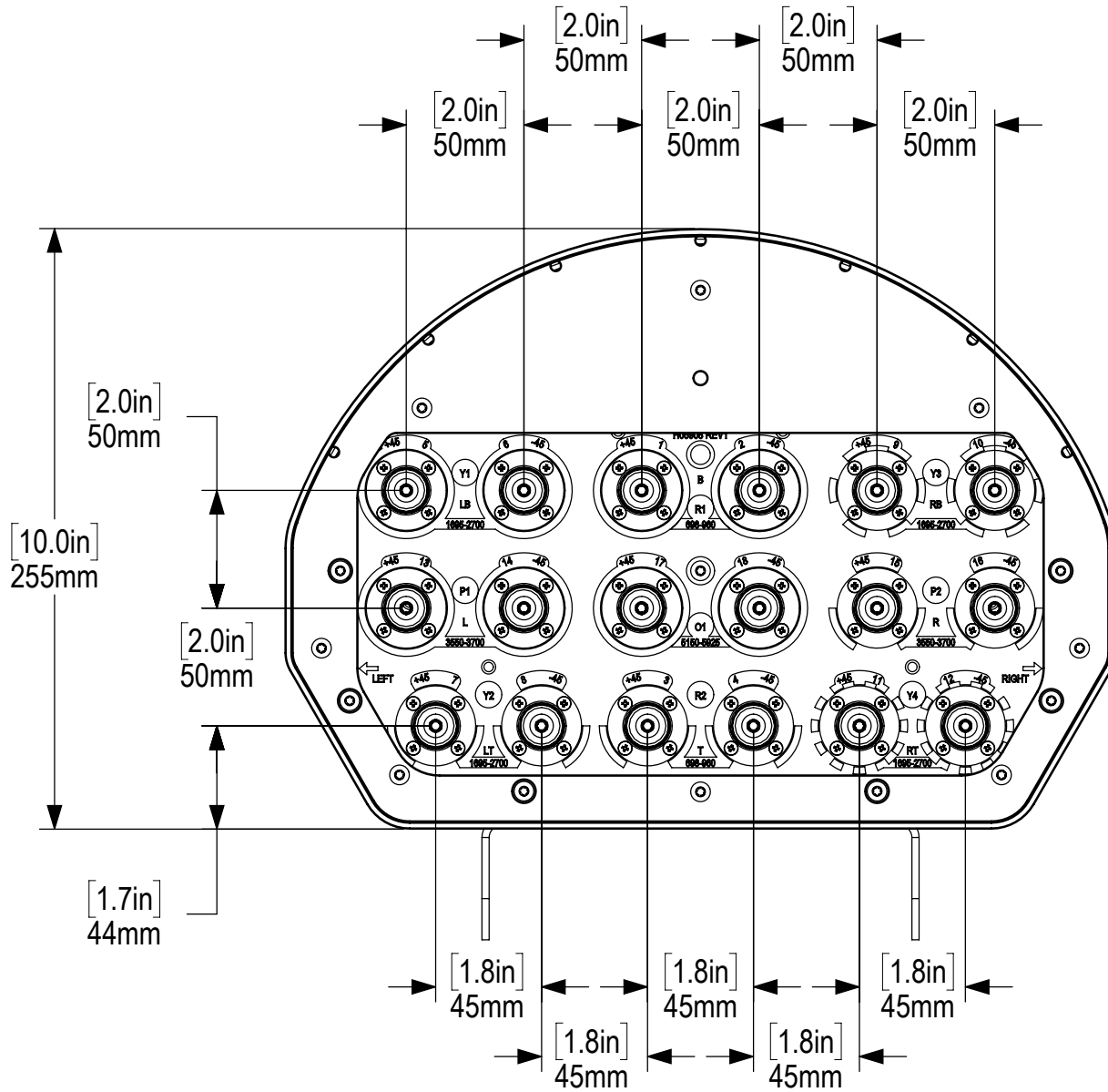
FREQUENCY		ARRAY	CONNECTOR	CONNECTOR TYPE
LOW BAND	696-960	■ R1	1-2	(2x) 4.3-10 Female
	696-960	■ R2	3-4	(2x) 4.3-10 Female
MID BAND	1695-2700	■ Y1	5-6	(2x) 4.3-10 Female
	1695-2700	■ Y2	7-8	(2x) 4.3-10 Female
	1695-2700	■ Y3	9-10	(2x) 4.3-10 Female
	1695-2700	■ Y4	11-12	(2x) 4.3-10 Female
CBRS BAND	3550-3700	■ P1	13-14	(2x) 4.3-10 Female
	3550-3700	■ P2	15-16	(2x) 4.3-10 Female
LAA BAND	5150-5925	■ O1	17-18	(2x) 4.3-10 Female



The illustration is not shown to scale.

2C4U3MX065X06Fwxys0

BOTTOM VIEW - CONNECTOR DIAGRAM



INSTALLATION Please read all installation notes before installing this product.



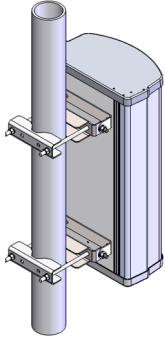
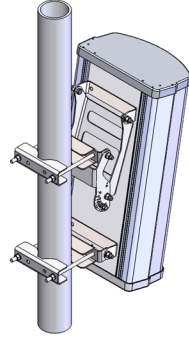
Always attach the antenna using all mounting points.


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.

2C4U3MX065X06Fwxys0

MOUNTING KITS Select from the following mounting options when ordering.

MODEL NUMBER	DESCRIPTION	FITS PIPE DIAMETER	WEIGHT
MKS09P01	 <p>2-POINT MOUNTING BRACKET KIT</p>	50-115 mm (2.0-4.5 in)	2.9 kg (6 lbs)
MKS09T01	 <p>2-POINT, SCISSOR TILT, MOUNTING & DOWNTILT BRACKET KIT</p>	50-115 mm (2.0-4.5 in)	4.5 kg (10 lbs)

 The antennas shown in the mounting kit illustrations above are generic representations and may not resemble the antenna described within this data sheet.

2C4U3MX065X06Fwxyso

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

NUMBER OF BANDS and OPERATING FREQUENCY				PATTERN TYPE	AZIMUTH BMWIDTH	POLARIZATION	LENGTH	TILT TYPE	TILT OPTIONS	CONNECTOR TYPE	VARIATION	ORDERING OPTION
2C	4U	3M		X	065	X	06	F	wxy	s	0	-P -T
(2x) 696-960	(4x) 1695-2700	(2x) 3550-3700	(1x) 5150-5925	Standard Panel Antenna	65°	XPOL	0.6 meters	Fixed Tilt	<p>These letters are placeholders for fixed tilt options.</p> <p>Refer to Electrical Specifications for available tilt options.</p>	4.3-10 Connector	Original Variation	<p>To order the antenna and mounting kit together as one line item, add a -P for the 2-POINT MOUNTING BRACKET KIT (MKS09P01) or a -T for the 2-POINT, SCISSOR TILT, MOUNTING & DOWNTILT BRACKET KIT (MKS09T01) to the end of the model number.</p> <p>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.</p> <p>Refer to the ordering options on the following page for further detail.</p>

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.

2C4U3MX065X06Fwxys0

ORDERING OPTIONS Select from the following ordering options

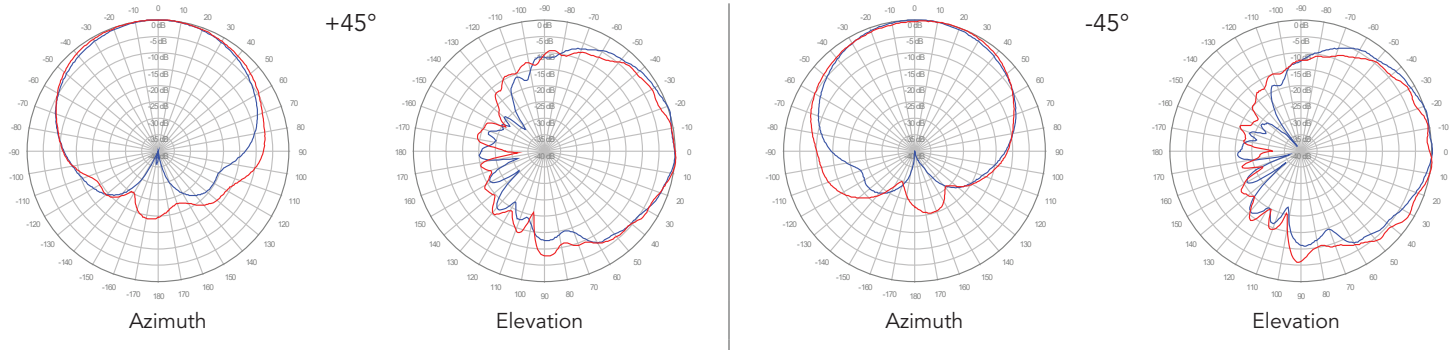
SELECT MOUNTING KIT	SELECT DEGREE OF ELECTRICAL DOWNTILT FOR EACH BAND				ORDER MODEL NUMBER
	LOW BAND	MID BAND	CBRS BAND	LAA BAND	
ANTENNA ONLY - NO MOUNTING KIT	0°	2°	0°	0°	2C4U3MX065X06F020s0
	0°	4°	0°	0°	2C4U3MX065X06F040s0
	0°	6°	0°	0°	2C4U3MX065X06F060s0
	0°	Y1 & Y2 = 2° Y3 & Y4 = 4°	0°	0°	2C4U3MX065X06FAAA s0
	0°	Y1 & Y2 = 2° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FBBB s0
	0°	Y1 & Y2 = 4° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FCCC s0
ANTENNA WITH MKS09P01 MOUNTING KIT 2-Point Mounting Bracket Kit	0°	2°	0°	0°	2C4U3MX065X06F020s0-P
	0°	4°	0°	0°	2C4U3MX065X06F040s0-P
	0°	6°	0°	0°	2C4U3MX065X06F060s0-P
	0°	Y1 & Y2 = 2° Y3 & Y4 = 4°	0°	0°	2C4U3MX065X06FAAA s0-P
	0°	Y1 & Y2 = 2° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FBBB s0-P
	0°	Y1 & Y2 = 4° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FCCC s0-P
ANTENNA WITH MKS09T01 MOUNTING KIT 2-Point, Scissor Tilt, Mounting & Downtilt Bracket Kit	0°	2°	0°	0°	2C4U3MX065X06F020s0-T
	0°	4°	0°	0°	2C4U3MX065X06F040s0-T
	0°	6°	0°	0°	2C4U3MX065X06F060s0-T
	0°	Y1 & Y2 = 2° Y3 & Y4 = 4°	0°	0°	2C4U3MX065X06FAAA s0-T
	0°	Y1 & Y2 = 2° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FBBB s0-T
	0°	Y1 & Y2 = 4° Y3 & Y4 = 6°	0°	0°	2C4U3MX065X06FCCC s0-T

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.

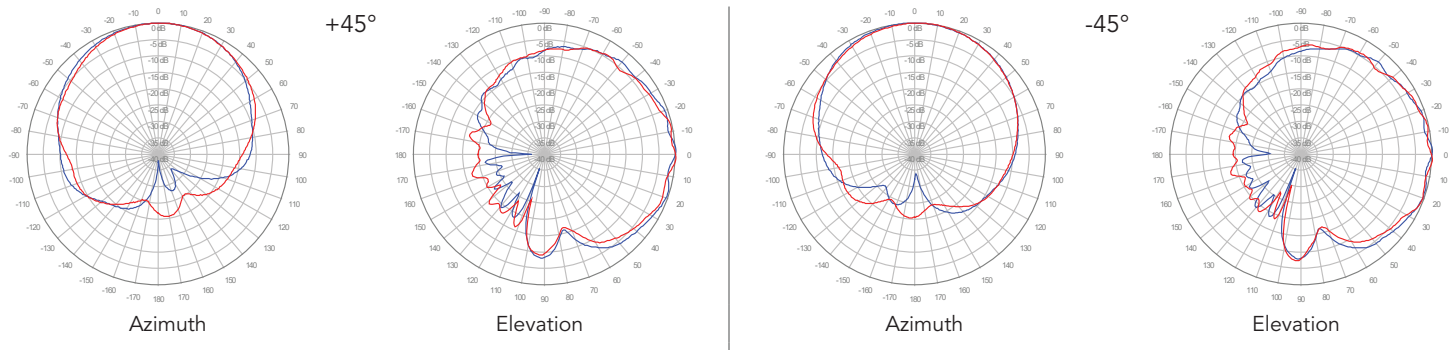
2C4U3MX065X06Fwxys0

750 MHz ————
850 MHz ————

R1, 0° TILT



R2, 0° TILT

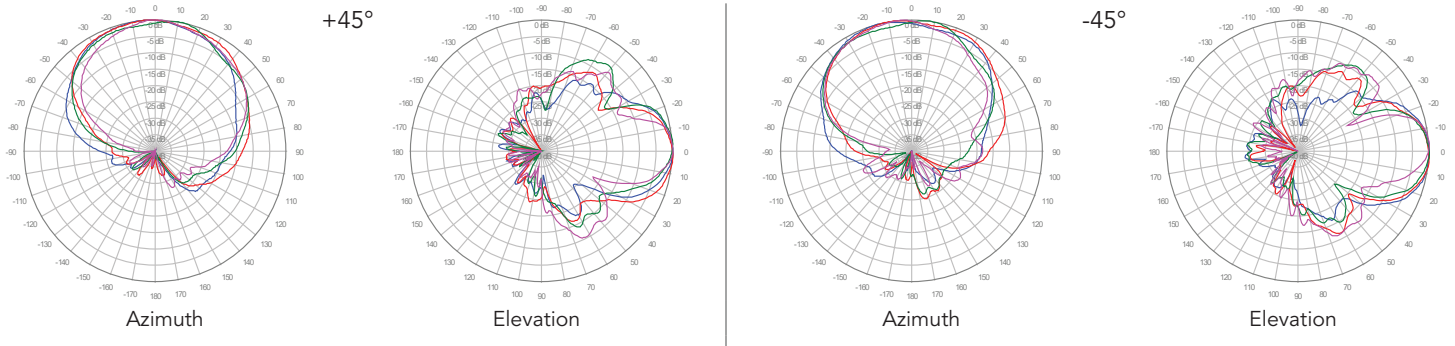


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

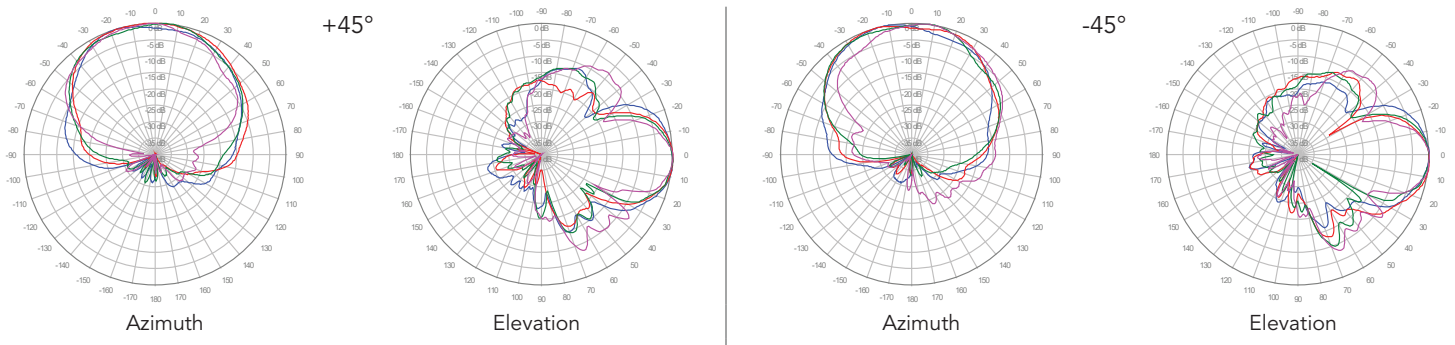
2C4U3MX065X06Fwxys0



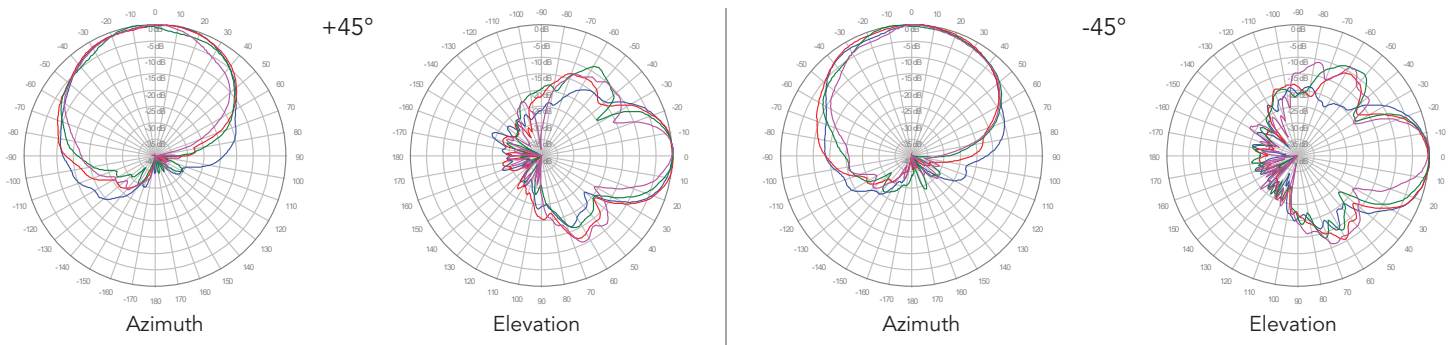
■ **Y1, 2° TILT**



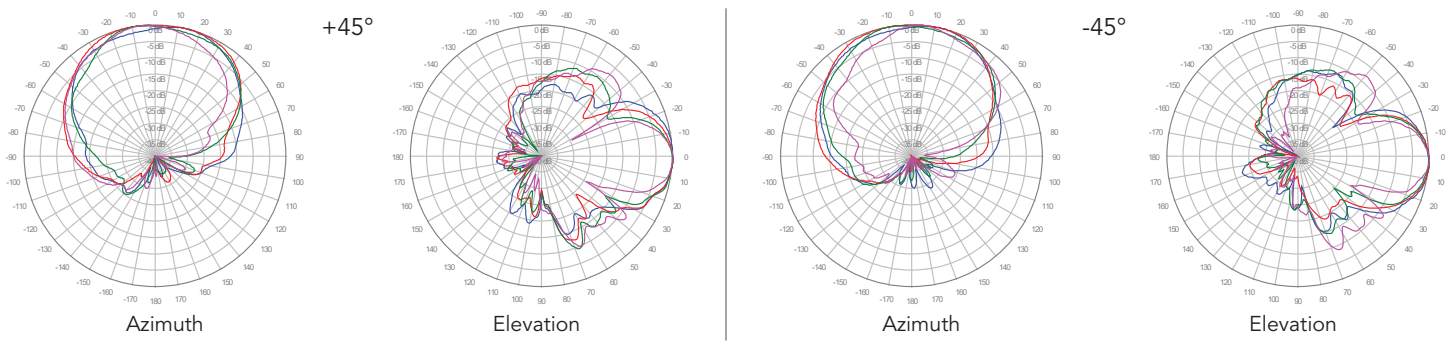
■ **Y2, 2° TILT**



■ **Y3, 2° TILT**



■ **Y4, 2° TILT**

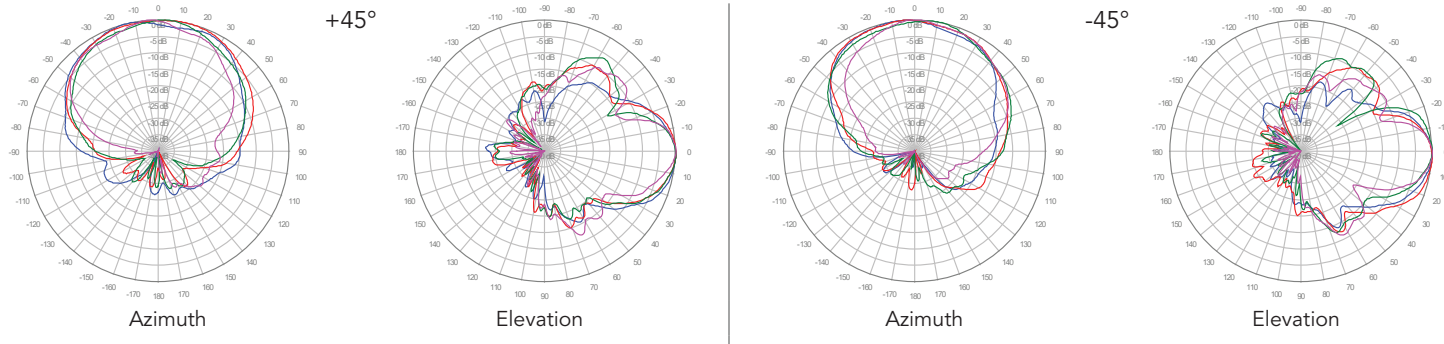


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

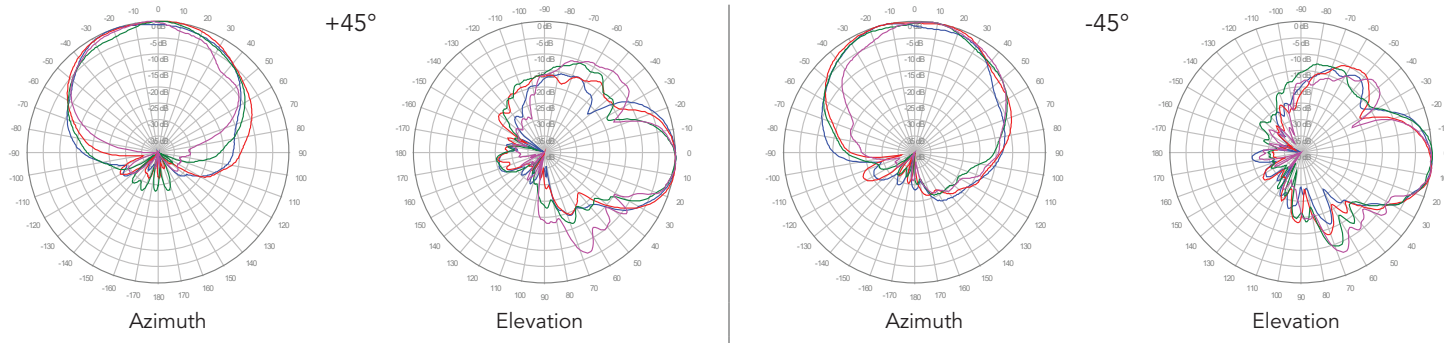
2C4U3MX065X06Fwxys0

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

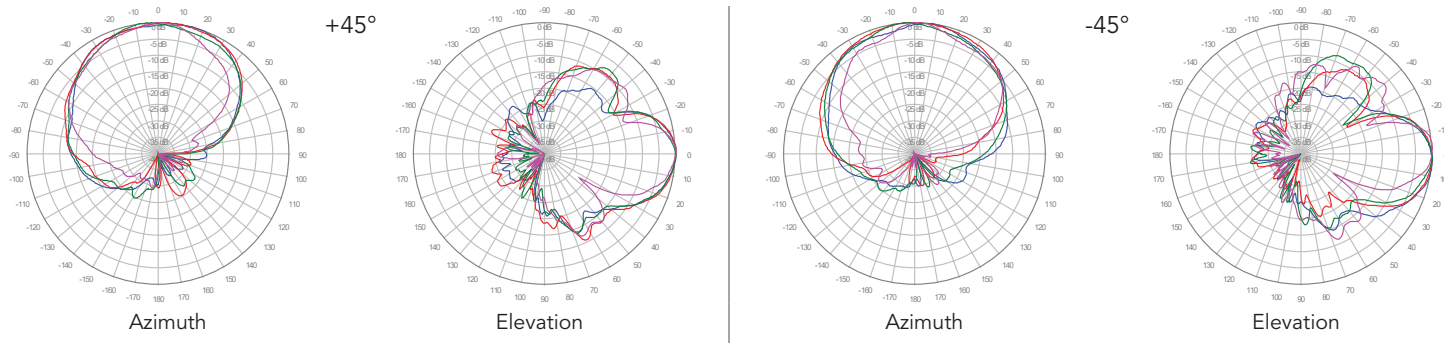
Y1, 4° TILT



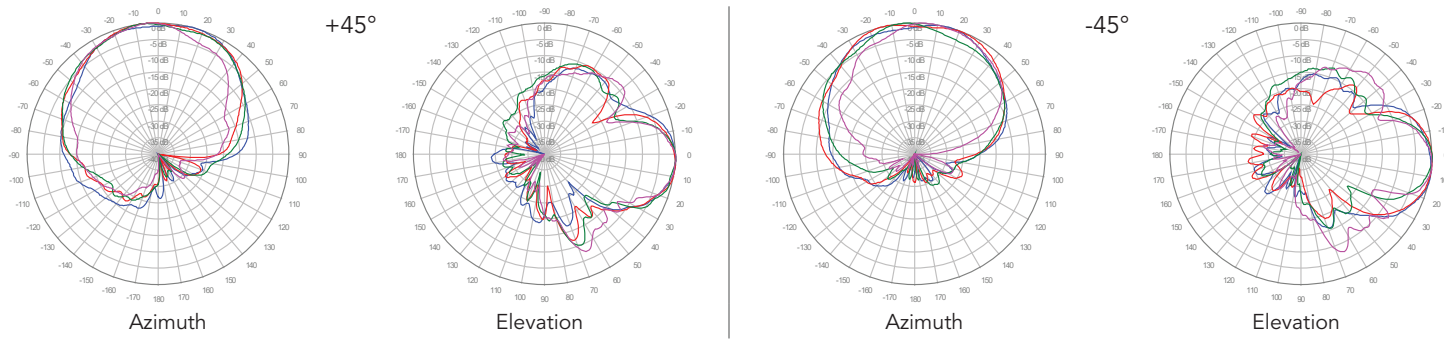
Y2, 4° TILT



Y3, 4° TILT



Y4, 4° TILT

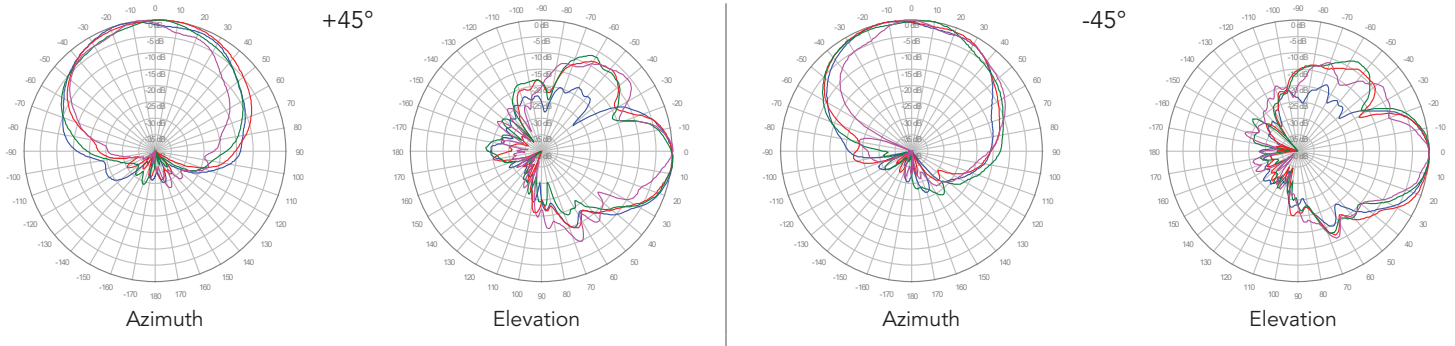


Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

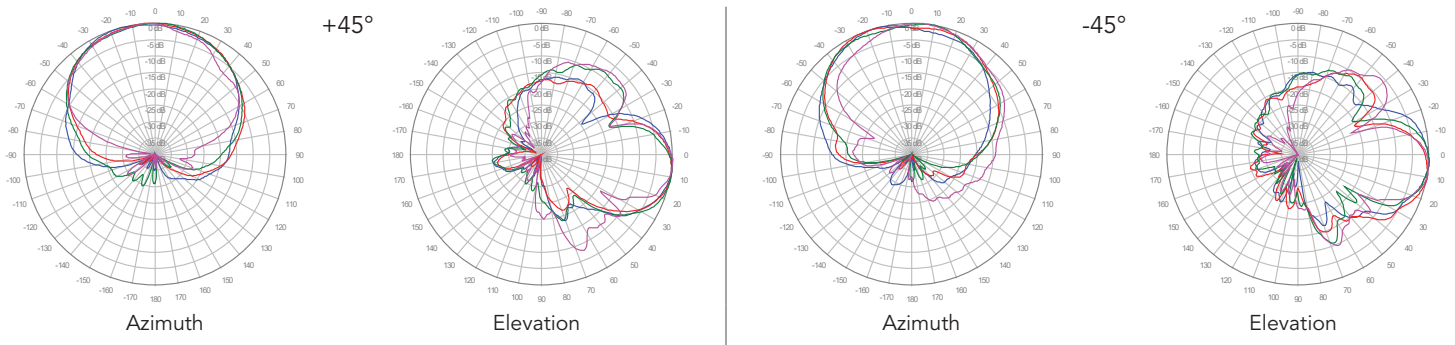
2C4U3MX065X06Fwxys0

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

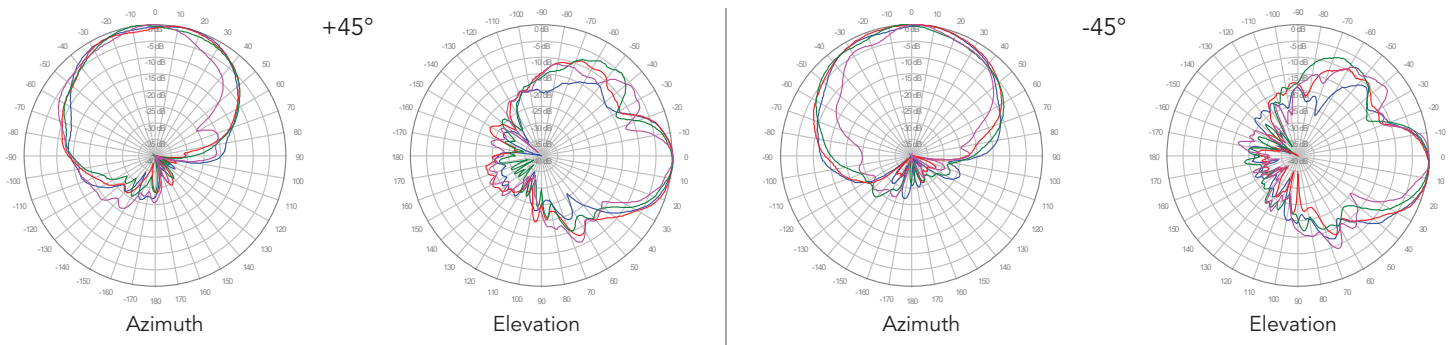
■ Y1, 6° TILT



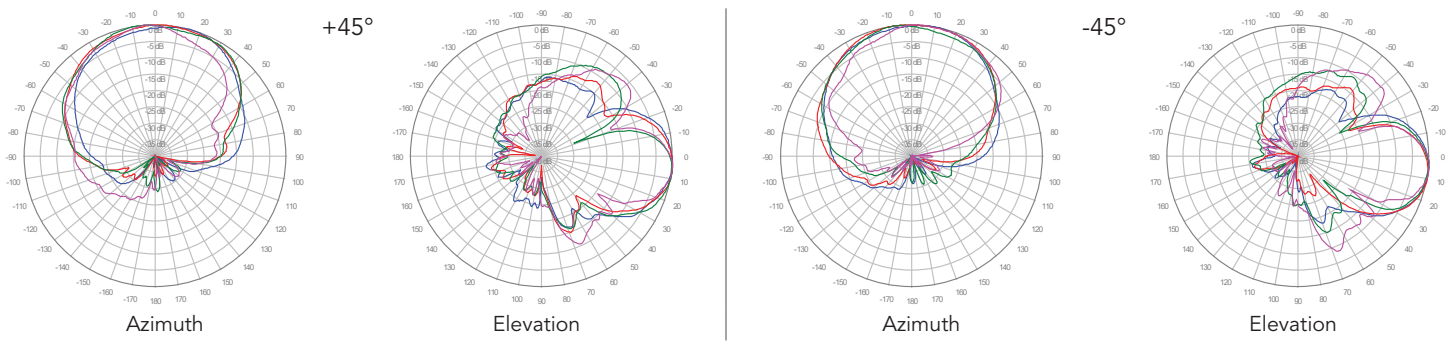
■ Y2, 6° TILT



■ Y3, 6° TILT



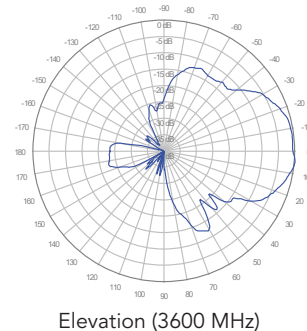
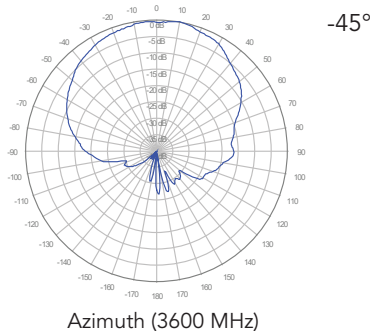
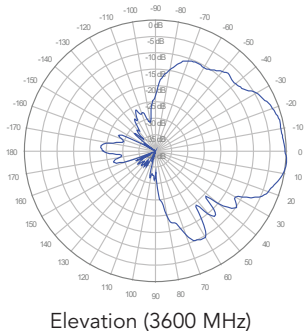
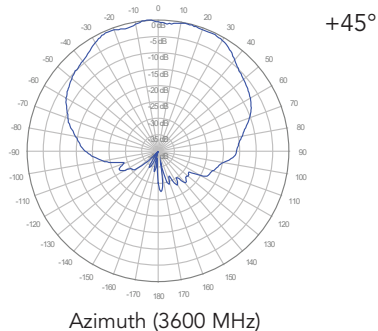
■ Y4, 6° TILT



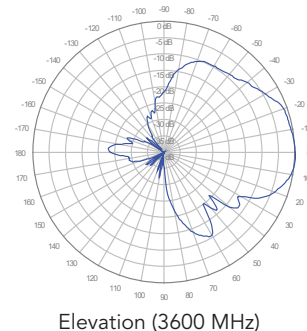
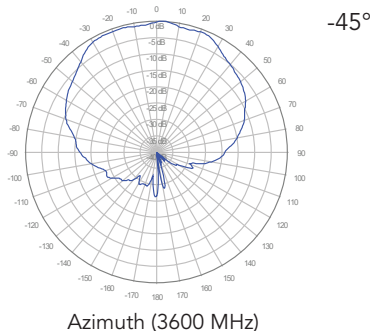
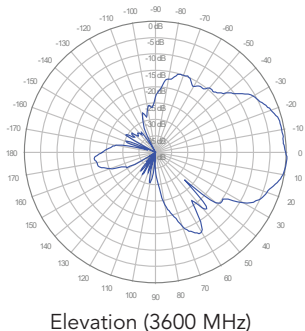
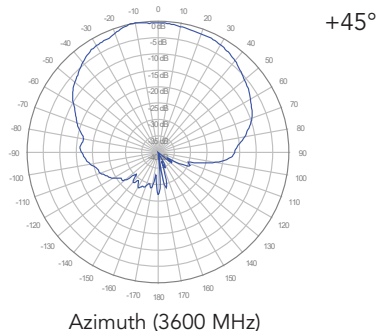
Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage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

2C4U3MX065X06FwxyS0

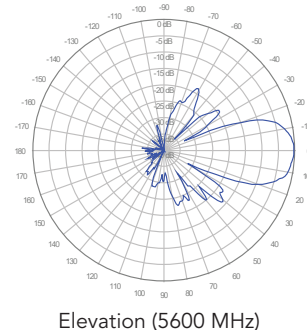
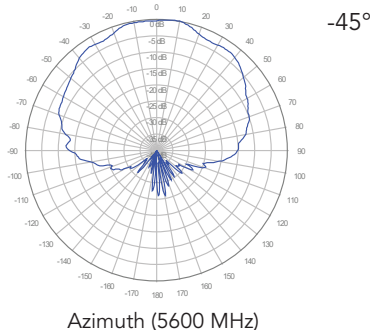
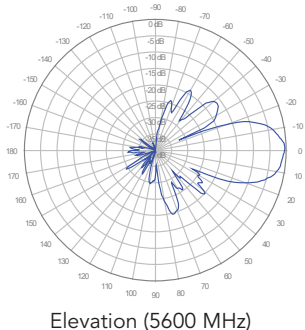
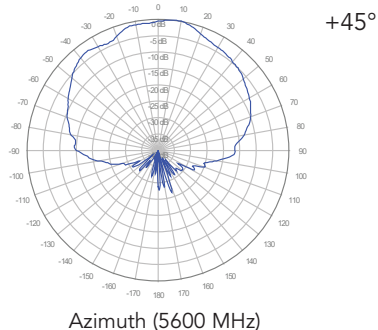
P1, 0° TILT



P2, 0° TILT



O1, 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.