Amphenol ANTENNA SOLUTIONS

4-Port Panel Antenna

(1x) 617-897 | (1x) 1695-2690 MHz

45° | 76.4 IN | VARIABLE TILT

QUAD456LU000G-T

PRODUCT OVERVIEW			
	Frequency Range (MHz)	LOW BAND	MID BAND
		(1x) 617-897	(1x) 1695-2690
	Array	R1	Y1
	Connector	2 PORTS	2 PORTS
	Polarization	XPOL	XPOL
	Azimuth Beamwidth (avg)	45°	45°
	Electrical Downtilt	0-10°	2-10°
	Total Connector Count	4 PORTS	
	Connector Type	4.3-10 FEMALE LONG-NECK	
	Dimensions	1939 x 531 x 221 mm (76.4 x 20.9 x 8.7 in)	

ELECTRICAL SPECIFICATIONS Low Band — **R1**

Frequency Range		MHz	617-897		
Frequency Sub-Range		MHz	617-698	698-798	800-897
Polarization		---	±45°		
Gain	Low Tilt	dBi	16.0	16.1	15.7
	Mid Tilt	dBi	15.8	16.0	15.6
	High Tilt	dBi	15.1	15.4	15.2
	Over all Tilts	dBi	15.7 ± 0.6	15.9 ± 0.5	15.6 ± 0.5
Azimuth Beamwidth (3 dB)		degrees	47.7 ± 2.9	41.2 ± 3.0	36.1 ± 2.0
Elevation Beamwidth (3 dB)		degrees	14.0 ± 1.0	12.1 ± 1.2	10.5 ± 1.0
Electrical Downtilt		degrees	0-10		
Impedance		Ohms	50Ω		
VSWR		---	1.5:1		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBm (dBc)	< -110 (< -153)		
Front-to-Back Ratio ± 30° @ 180° from boresite		dB	> 24.2	> 21.7	> 20.8
Upper Sidelobe Rejection 20° Sector Above Main Beam		dB	> 17.4	> 17.6	> 14.0
Cross Polar Discrimination at Mechanical Boresight (0°)		dB	> 19.7	> 22.2	> 20.1
Maximum Power Per Port		Watts	500W		
Interband/Intraband Isolation		dB	25/30	25/30	25/30

Standard values based on NGMN-P-BASTA version 9.6 recommendation.

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.

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ELECTRICAL SPECIFICATIONS Mid Band

Y1

Frequency Range		MHz	1695-2690			
Frequency Sub-Range		MHz	1695-1880	1850-1990	1920-2200	2300-2690
Polarization		---	±45°			
Gain	Low Tilt	dBi	17.5	17.6	17.2	18.0
	Mid Tilt	dBi	17.8	17.8	17.4	18.3
	High Tilt	dBi	18.1	17.7	17.3	18.1
	Over all Tilts	dBi	17.8 ± 0.5	17.7 ± 0.4	17.3 ± 0.6	18.2 ± 0.5
Azimuth Beamwidth (3 dB)		degrees	40.9 ± 5.0	49.3 ± 3.5	49.2 ± 3.4	36.8 ± 5.7
Elevation Beamwidth (3 dB)		degrees	6.0 ± 0.3	5.6 ± 0.2	5.3 ± 0.5	4.3 ± 0.4
Electrical Downtilt		degrees	2-10			
Impedance		Ohms	50Ω			
VSWR		---	1.5:1			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBm (dBc)	< -110 (< -153)			
Front-to-Back Ratio ± 30° @ 180° from boresite		dB	> 27.8	> 34.0	> 34.8	> 27.2
Upper Sidelobe Rejection 20° Sector Above Main Beam		dB	> 16.7	> 15.5	> 15.9	> 15.8
Cross Polar Discrimination at Mechanical Boresight (0°)		dB	> 21.1	> 21.8	> 20.0	> 16.7
Maximum Power Per Port		Watts	300W			
Interband/Intraband Isolation		dB	25/30	25/30	25/30	25/30

Standard values based on NGMN-P-BASTA version 9.6 recommendation.

RET ACTUATOR

Amphenol's **RET-READY** antennas are delivered with the RET Actuator already installed and pre-commissioned with all antenna parameters. Every RET device is factory configured and calibrated so the antenna is ready to be used once delivered to the site which means that there is no need for further installation of RET devices or for programming their configuration or for running a calibration process.

Input Voltage		Vdc	10-30
Power Consumption	Idle State, maximum	Watts	0.5
	Normal Conditions, maximum	Watts	10.0
Protocol		---	3GPP/AISG v2.0 (Single RET)
RET Interface		---	DIN Male and DIN Female
Field Replaceable Unit		---	No

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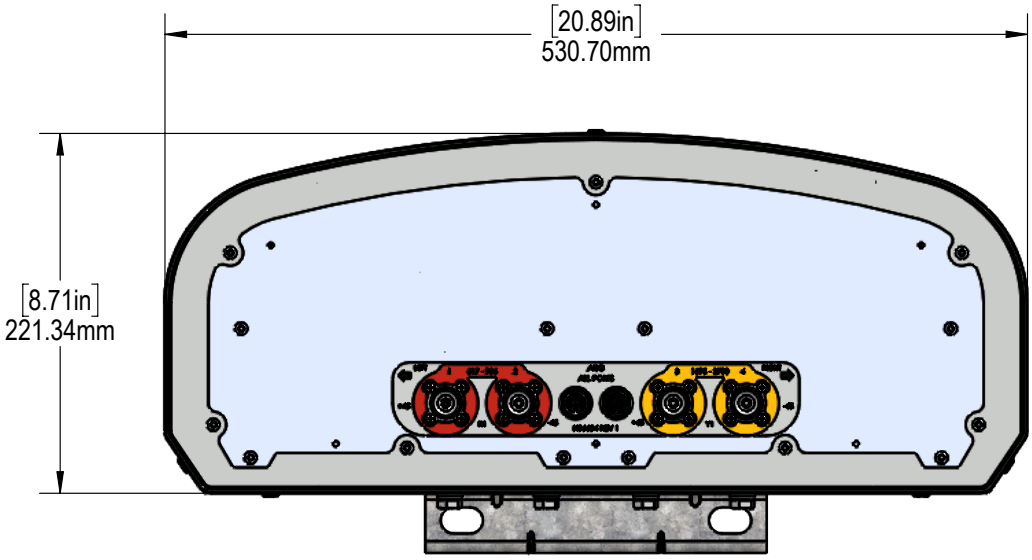
MECHANICAL SPECIFICATIONS

Antenna	Length		mm (in)	1939 (76.4)
	Width		mm (in)	531 (20.9)
	Depth		mm (in)	221 (8.7)
Net Weight - Antenna Only			kg (lbs)	26.8 (59-)
Windload		Calculation	km/h (mph)	161 (100)
		Frontal	N (lbf)	858 (193)
		Lateral	N (lbf)	191 (43)
Survival Wind Speed			km/h (mph)	241 (150)
Connector		Type	---	4.3-10 Female
		Quantity	---	4
		Position	---	Bottom
Radome Color			---	ANSI 70 Gray
Radome Material			---	UV Stabilized ABS or Hips
Lightning Protection (Grounding Type)			---	Direct Ground



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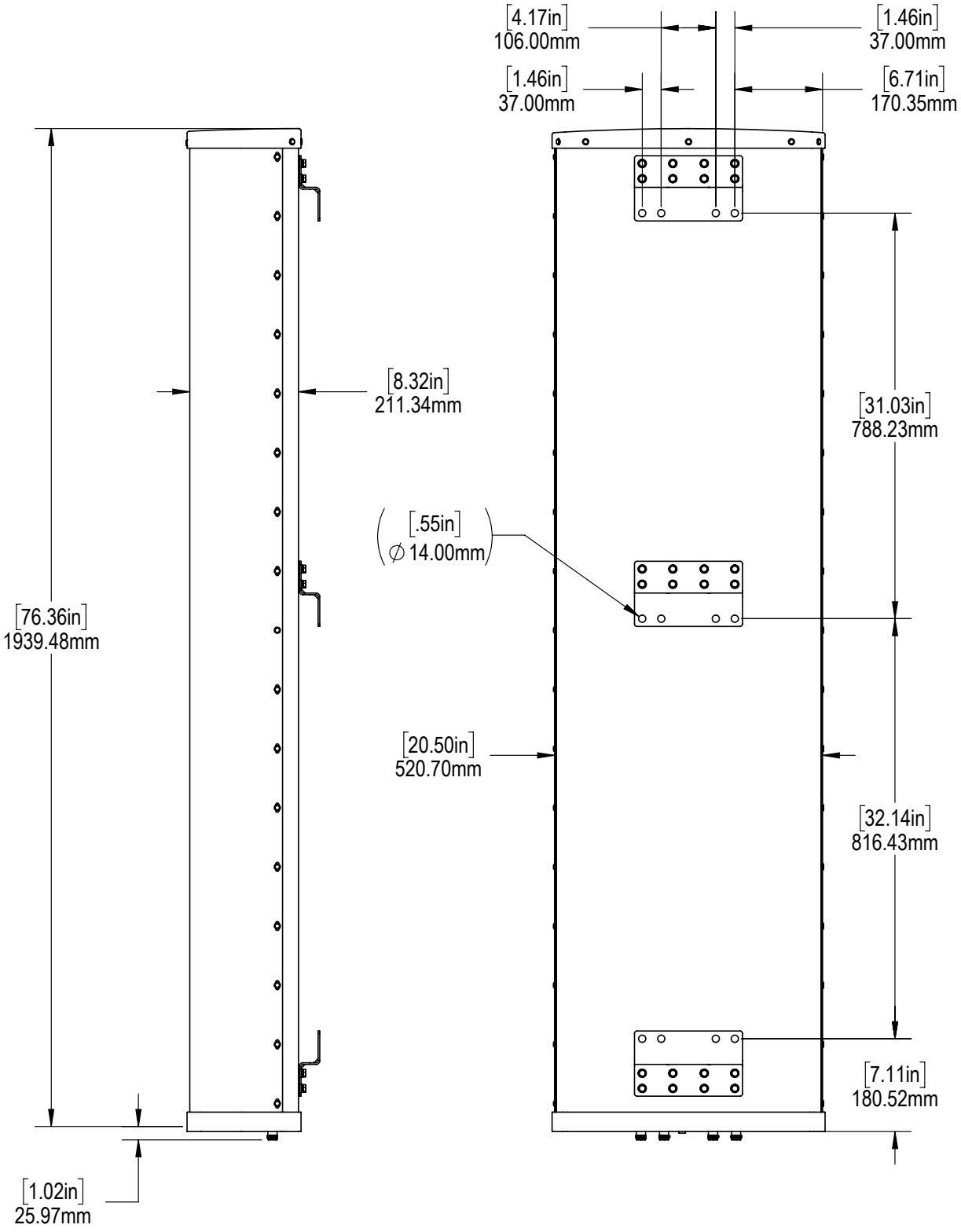

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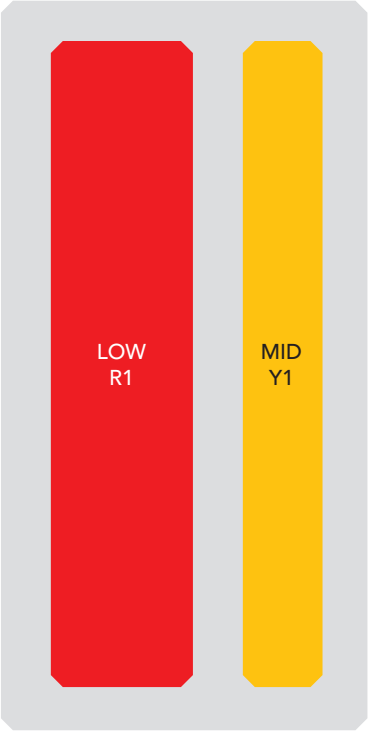
ARRAY LAYOUT	ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
	R1	617-897	1-2	4.3-10 Female Long Neck
	Y1	1695-2690	3-4	4.3-10 Female Long Neck



The illustration is not shown to scale.

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MOUNTING KITS The default mounting kit is included in the price of the antenna. Any other mounting kits are optional and must be ordered separately.

	MODEL NUMBER	DESCRIPTION	FITS PIPE DIAMETER	WEIGHT
DEFAULT MOUNTING KIT *Shipped as standard and included in the price of the antenna* 	MKS10T02	3-Point Scissor Tilt Mounting & Downtilt Bracket Kit	50-115 mm (2.0-4.5 in)	21.26 kg (47 lbs)
OPTIONAL MOUNTING KIT *Refer to ordering options* 	MKS10P02	3-Point Mounting Bracket Kit	50-115 mm (2.0-4.5 in)	26.53 kg (58 lbs)

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

INSTALLATION Please read all installation notes before installing this product.

	Always attach the antenna using all mounting points.
	Do not install the antenna with the connectors facing upwards.

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

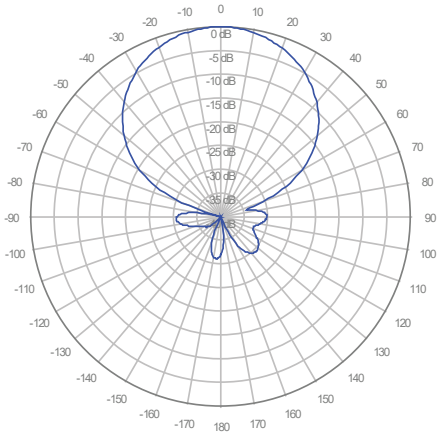
PORT COUNT	AZIMUTH BEAMWIDTH	LENGTH	OPERATING FREQUENCY		VARIATION	TILT TYPE	ORDERING OPTION
QUAD	45	6	L	U	000	G	-T -P
4 PORT	45°	Approximately 6 Feet	617-897 MHz	1695-2690 MHz	Original Variation Variations of this antenna or simiilar antenna models may exist. These characters are used to differentiate similar antenna models.	Remote Variable Tilt for 3GPP / AISG v2.0	The -T at the end of the model number indicates that the antenna is shipped standard with the 3-POINT SCISSOR TILT MOUNTING & DOWNTILT BRACKET KIT (MKS10T02). To order the antenna with the 3-POINT MOUNTING BRACKET KIT (MKS10P02) replace -T with -P when ordering. 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 for more detail.

ORDERING OPTIONS Select from the following ordering options

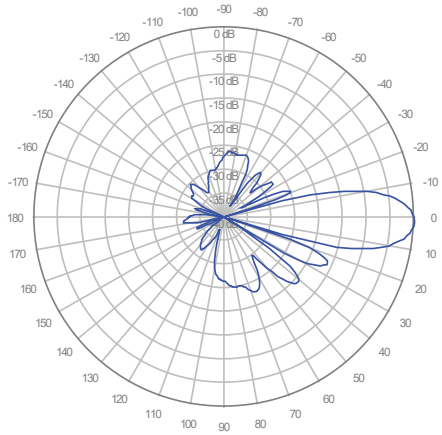
SELECT MOUNTING KIT	ORDER MODEL NUMBER
ANTENNA ONLY - NO MOUNTING KIT	QUAD456LU000G
ANTENNA WITH **MKS10P02** MOUNTING KIT 3-Point Mounting Bracket Kit	QUAD456LU000G-P
ANTENNA WITH **MKS10T02** MOUNTING KIT 3-Point Scissor Tilt Mounting & Downtilt Bracket Kit	QUAD456LU000G-T

QUAD456LU000G-T

R1, 0° TILT

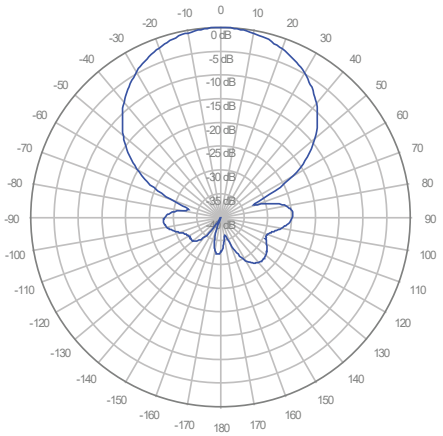


Azimuth

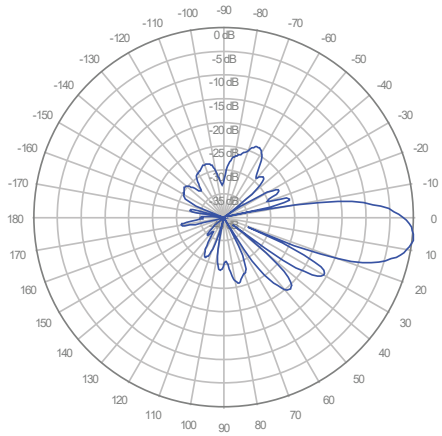


Elevation

R1, 5° TILT

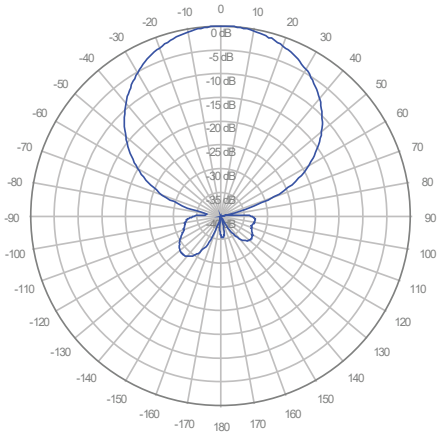


Azimuth

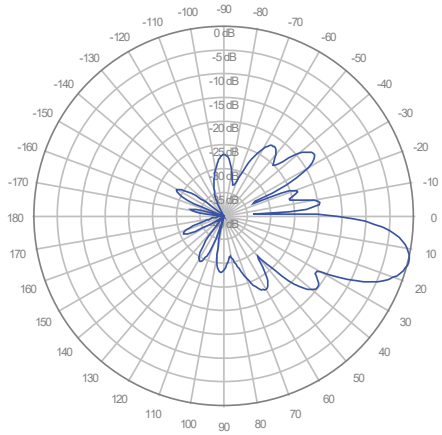


Elevation

R1, 10° TILT



Azimuth



Elevation

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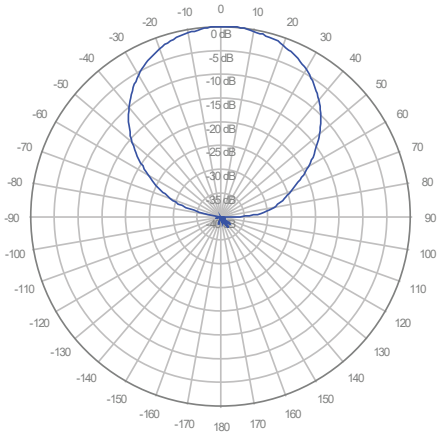
Y1, 2° TILT



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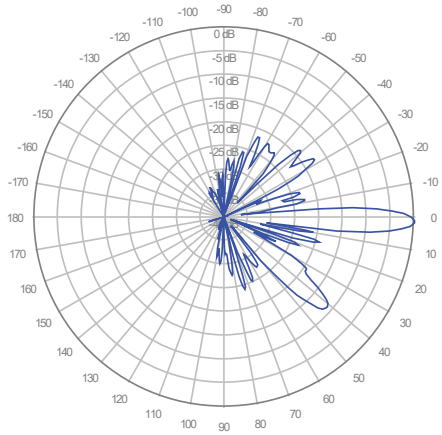
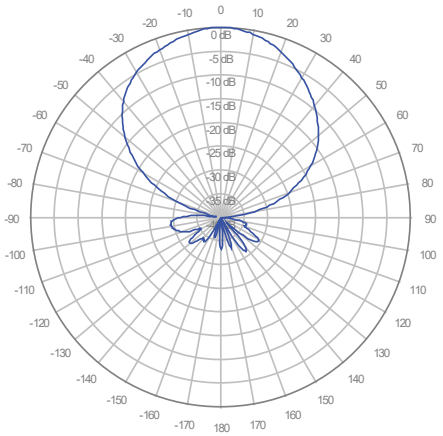


Elevation

Y1, 5° TILT



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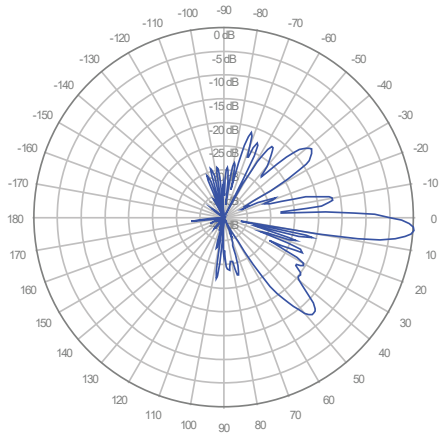
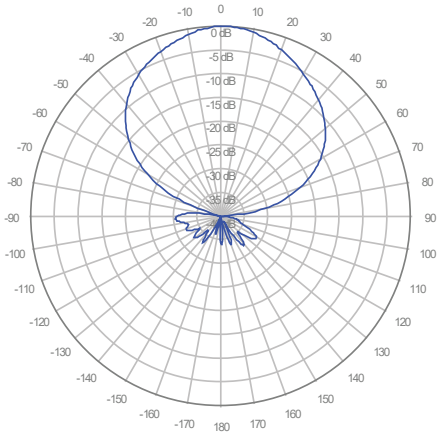
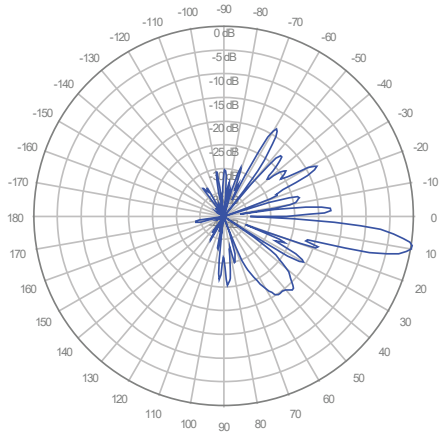


Elevation

Y1, 10° TILT



Azimuth



Elevation