

XXQLH-654L4H8-iVT-V2 — 8-Port, 65 Degree Multi-band Base Station Antenna

Multi-band Base Station Antennas

- Supports MIMO: 698-894 MHz 4T4R, 1695-2360 MHz 4T4R
- Independent tilt on each Low and High Band
- Fully internal replaceable RET
- Near Field PIM improvement

698-806	824-894	1695-1880	1850-1990	1920-2170	2300-2360
4 ports			4 ports		
±45°			±45°		
69°	62°	61°	66°	64°	60°
0-10°			0-10°		

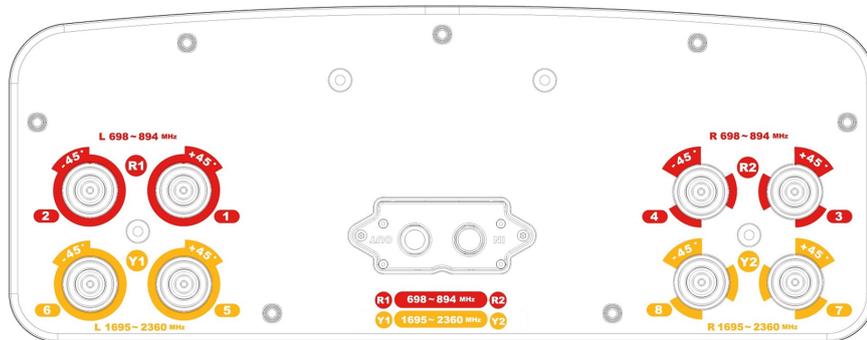
ELECTRICAL SPECIFICATIONS						
Frequency Range [MHz]	698-806	824-894	1695-1880	1850-1990	1920-2170	2300-2360
Gain [dBi]	15.8	16.1	17.3	17.4	17.6	17.8
Azimuth Beamwidth [°]	69	62	61	66	64	60
Elevation Beamwidth [°]	10.7	9.4	6.2	5.5	5.1	4.5
Electrical Downtilt [°]	0—10°		0—10°			
Front-to-Back Ratio, ±30° [dB]	25	25	25	25	25	25
Cross Polar Discrimination Over Sector [dB]	7	7	7	7	7	7
Cross Polar Discrimination Over Boresight [dB]	18	18	15	15	15	15
First Upper Side Lobe Suppression [dB]	15	15	15	15	15	15
Polarization [°]	±45					
Impedance [Ω]	50					
VSWR	< 1.5 : 1					
Return Loss [dB]	< -14.0					
Cross Polar Isolation [dB]	> 25		> 25			
Interband Isolation [dB]	> 30					
Passive Intermodulation [dBc]	< -153		< -153			
Maximum Effective Power Per Port [W]	300		250			

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [mm]	2438 x 500 x 190 (96" x 19.7" x 7.5")
Net Weight (antenna) [kg]	47.0 (103.6 lb)
Connector Type	4.3-10 female (IP67)
Connector Quantity	8
Connector Position	Bottom
Windload, Calculation [km/h]	150 (93.2 mph)
Windload, Frontal [N]	1580.5 (355.3 lbf)
Windload, Lateral [N]	600.6 (135 lbf)
Survival Wind Speed [km/h]	241 (150 mph)
Radome Material	Fiberglass, UV resistance
Radome Color [RAL]	Light gray
Lightning Protection	DC ground

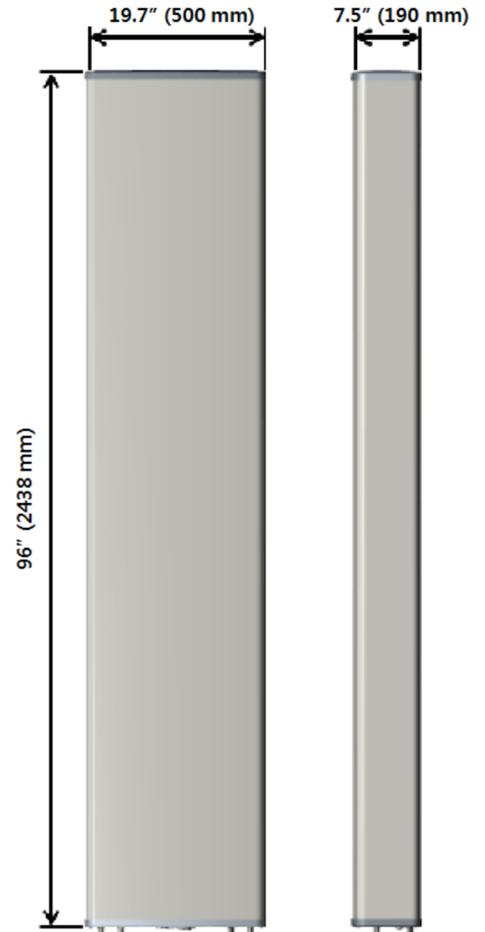


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LAYOUT OF INTERFACE (BOTTOM VIEW)



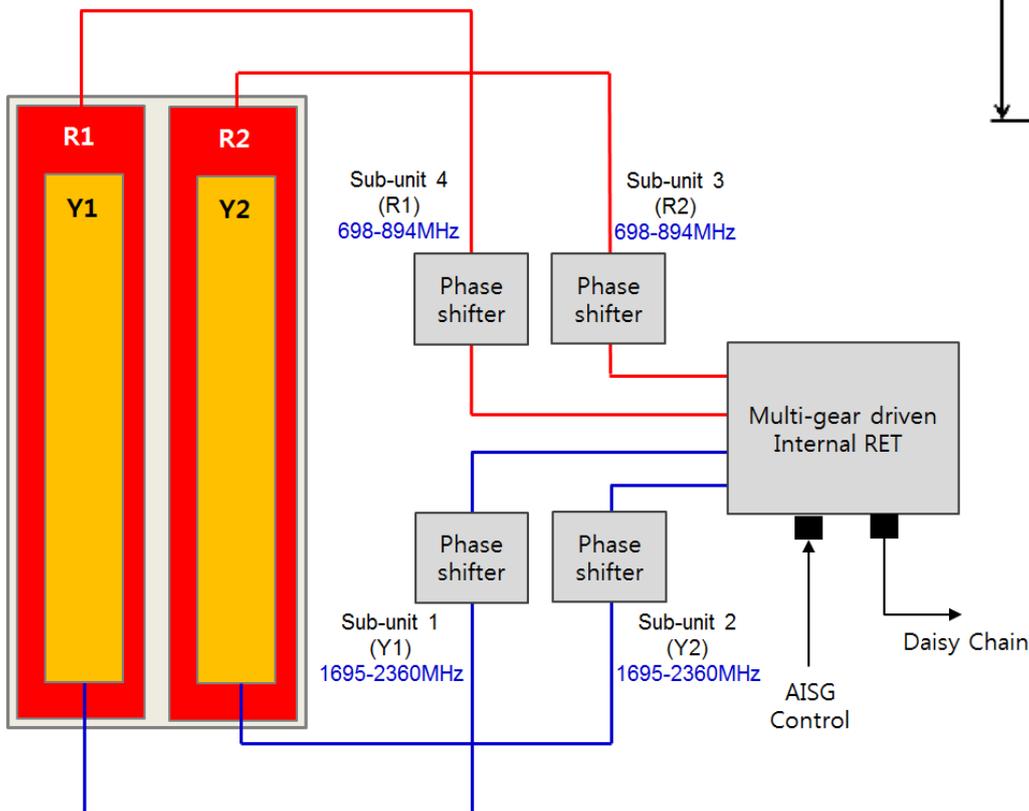
ANTENNA LAYOUT



Correlation table

Color code	Column	Frequency	Connector No.	Connector
	R1, R2	698~894 MHz	R1 : 1, 2 R2 : 3, 4	4.3-10, Female
	Y1, Y2	1695~2360 MHz	Y1 : 5, 6 Y2 : 7, 8	4.3-10, Female

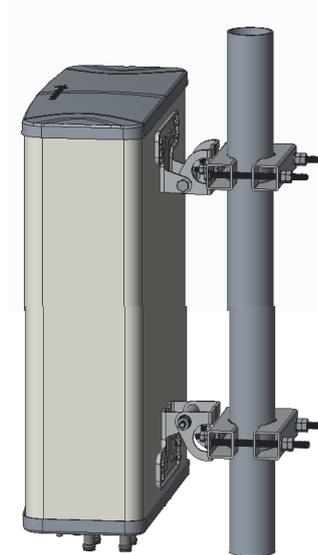
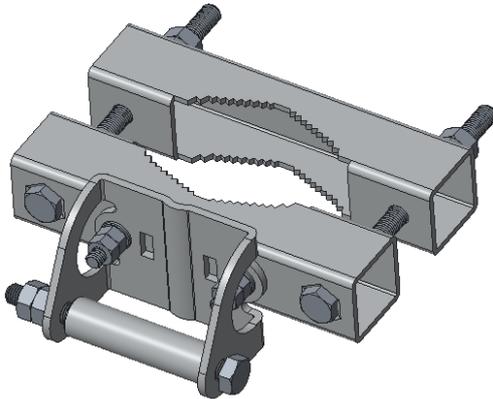
RET control mechanism



Mechanical Mounting Configuration

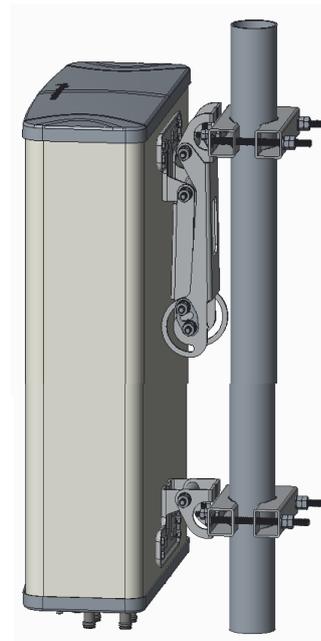
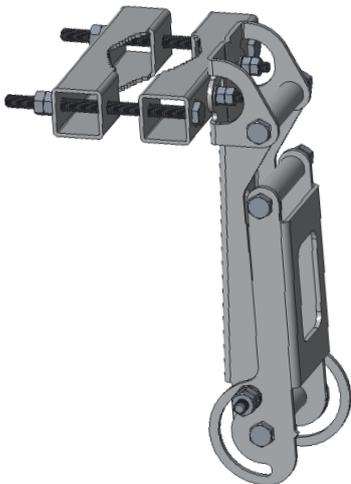
Mounting Clamp [Type No. AS-MC-MAIN] (Bundle)

Scope of supply	1 x lower clamp 1 x upper clamp
Material	Hot-dip galvanized steel



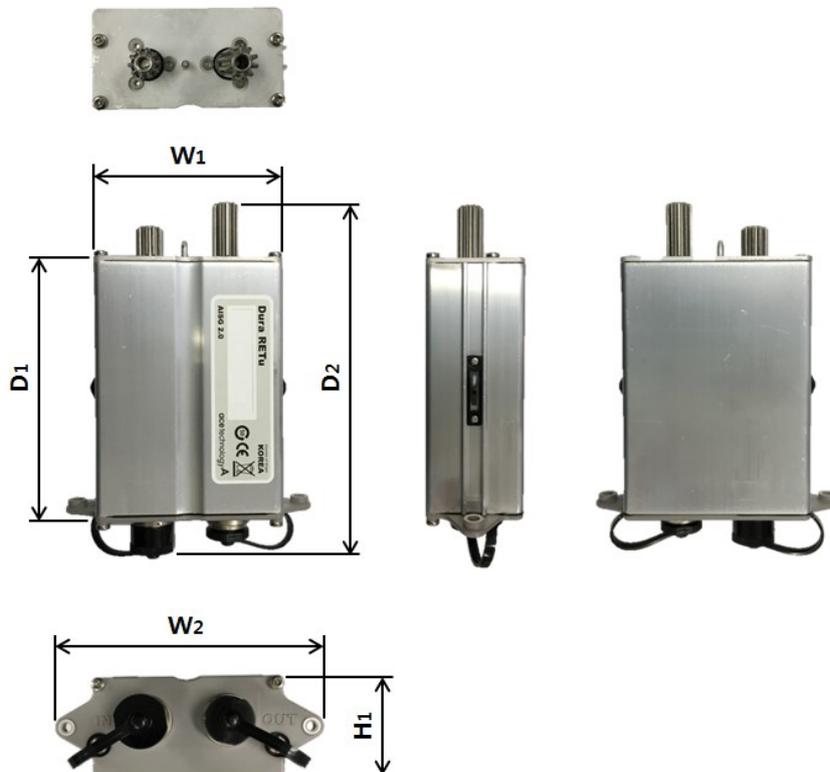
Mounting Tilt Clamp [Type No. AS-MC-TILT] (Option)

Scope of supply	1 x upper tilt clamp
Material	Hot-dip galvanized steel



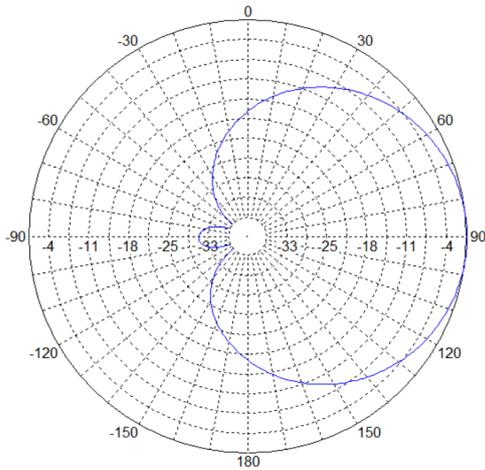
RET (Remote Electrical Tilt) unit with 3GPP/AISG2.0

Model	DuraRET-AISG
Protocols	Compliant to AISG 2.0 / 3GPP
Input voltage range	10~ 30VDC (pin 6)
Power consumption	< 1.5W (stand by); < 13W (motor activated)
Connectors	2 x 8 pin connector according to IEC 60130-9 According to AISG Daisy chain in: male; Daisy chain out: female
Hardware interface	RS 485A/B (pin 5 / pin 3) Power supply (pin 6) DC return (pin 7) According to AISG
Adjustment time(full range)	< 120 sec
Temperature range	-40~ +70℃
Protection class	IP55 (Installed)
Housing material	Body: Aluminum Cover: Aluminum
Weight	< 400g
Main dimensions (W ₁ x D ₁ x H) (Max. dimensions (W ₂ x D ₂ x H))	75.0 × 105.0 × 40.0 mm (105.0 × 143.5 × 40.0 mm)

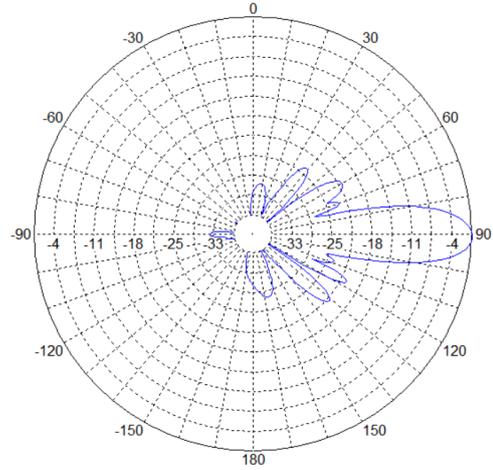


XXQLH-654L4H8-iVT-V2 - Radiation pattern

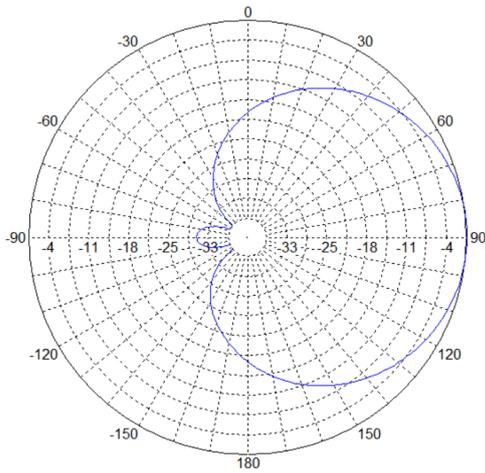
700 MHz Band



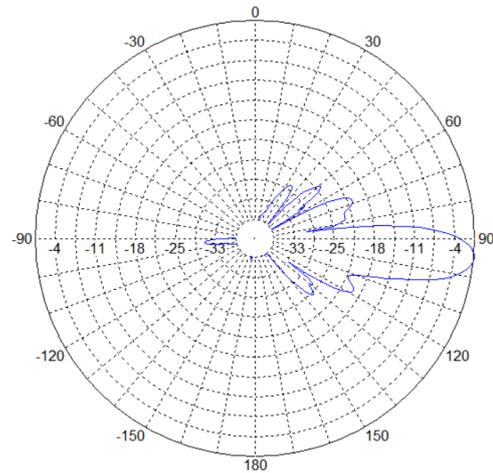
Horizontal pattern 0T



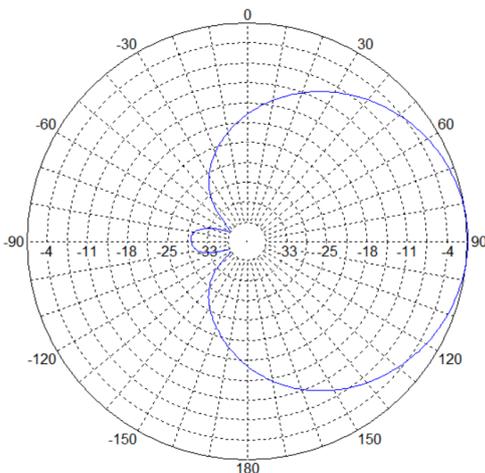
Vertical pattern 0T



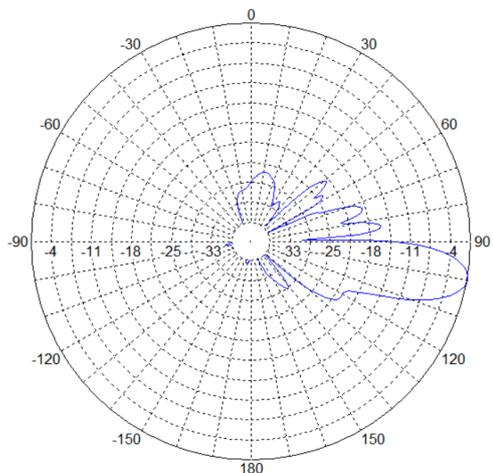
Horizontal pattern 5T



Vertical pattern 5T



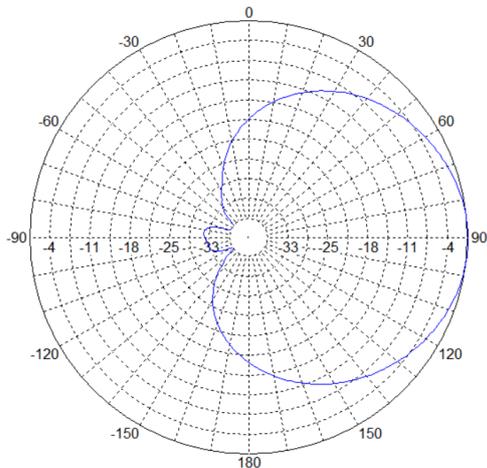
Horizontal pattern 10T



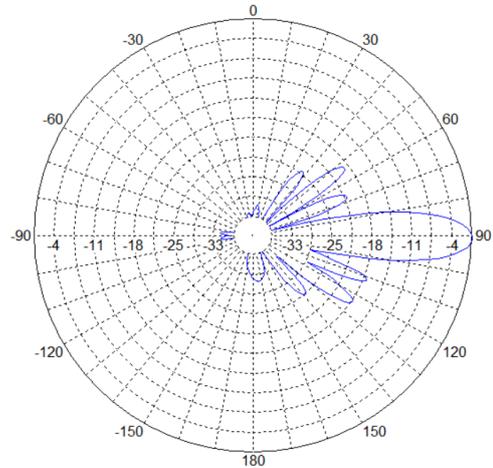
Vertical pattern 10T

XXQLH-654L4H8-iVT-V2 - Radiation pattern

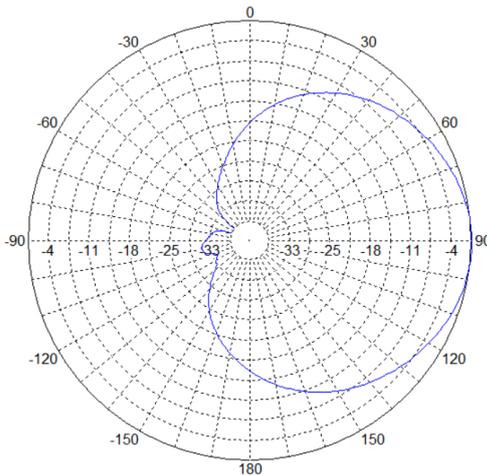
850 MHz Band



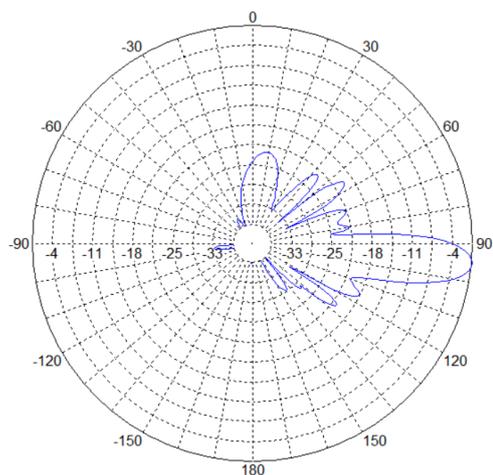
Horizontal pattern 0T



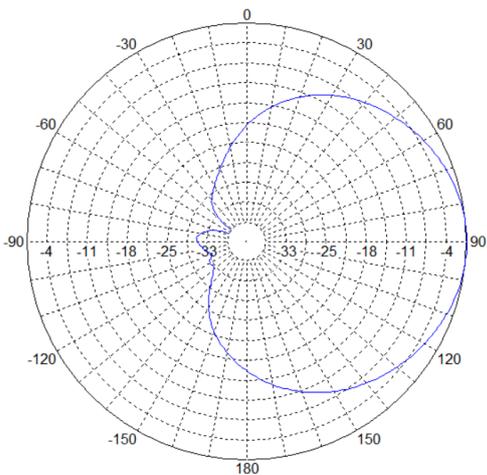
Vertical pattern 0T



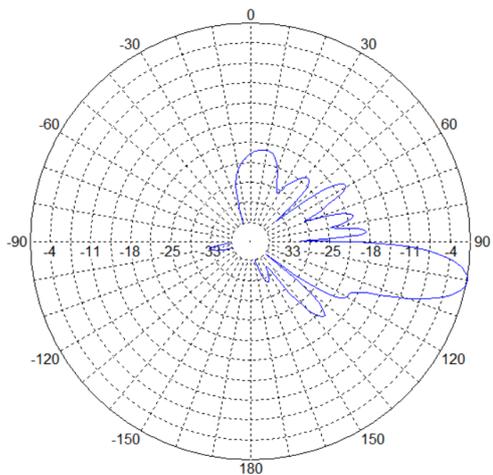
Horizontal pattern 5T



Vertical pattern 5T



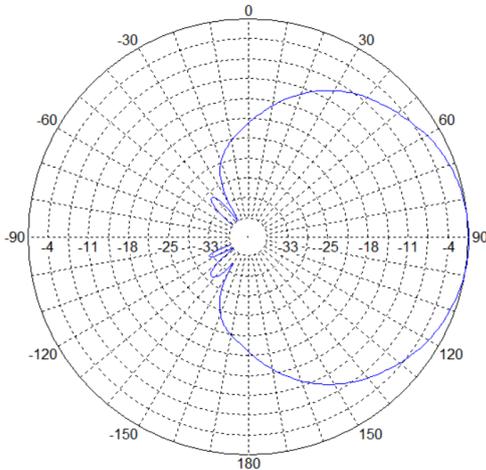
Horizontal pattern 10T



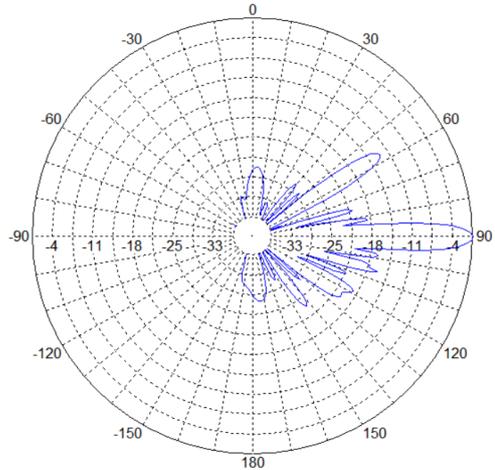
Vertical pattern 10T

XXQLH-654L4H8-iVT-V2 - Radiation pattern

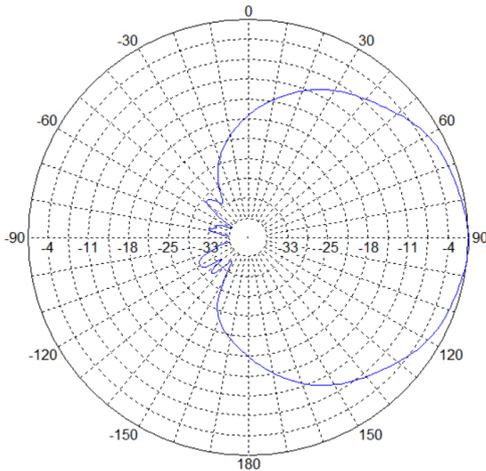
1900 MHz Band



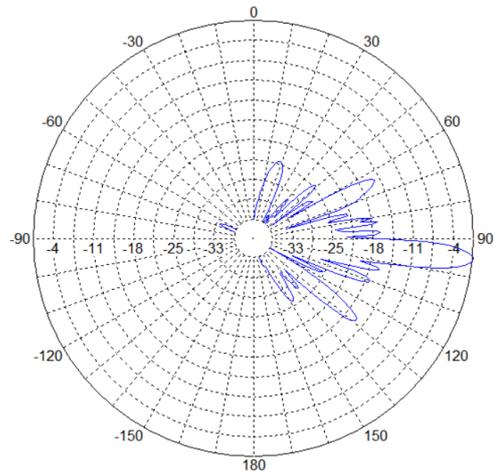
Horizontal pattern 0T



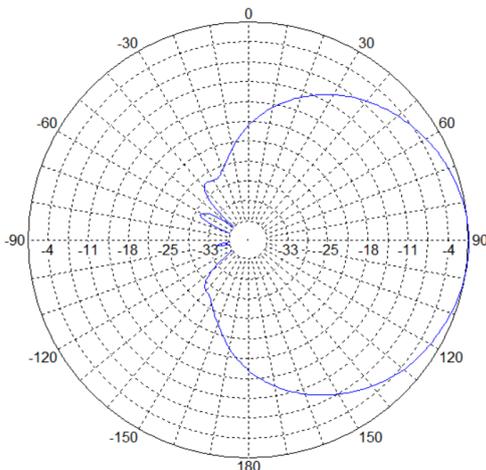
Vertical pattern 0T



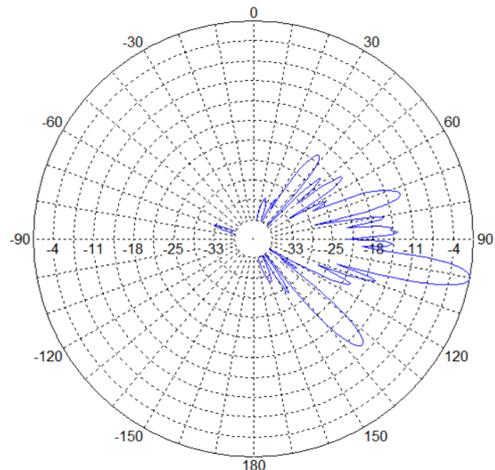
Horizontal pattern 5T



Vertical pattern 5T



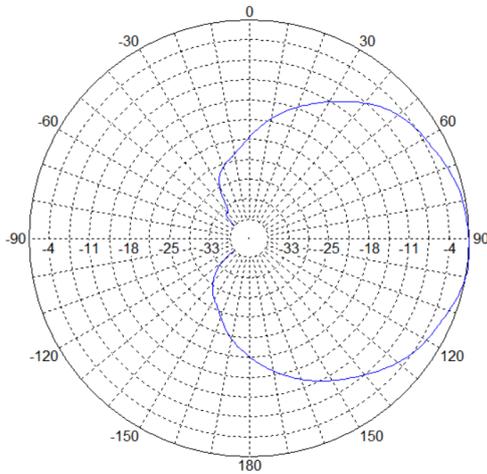
Horizontal pattern 10T



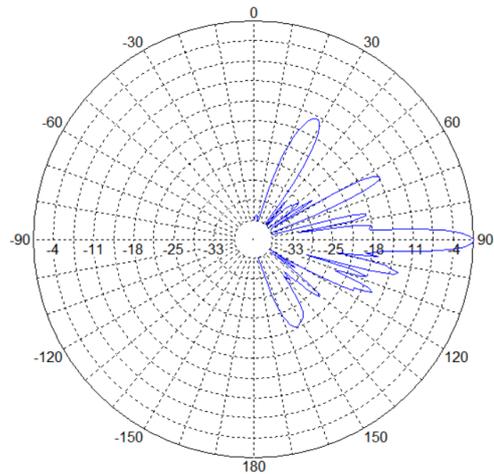
Vertical pattern 10T

XXQLH-654L4H8-iVT-V2 - Radiation pattern

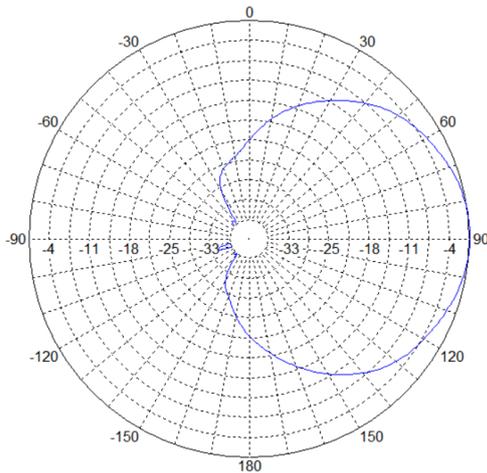
2300 MHz Band



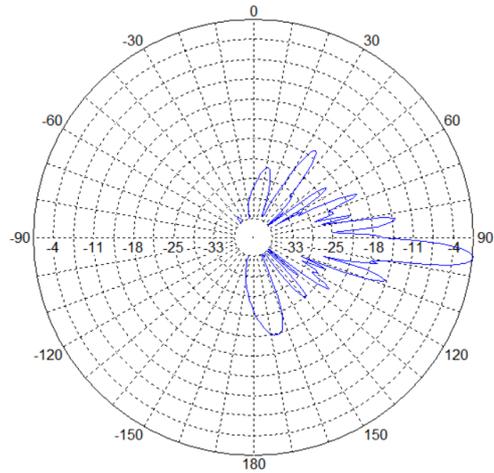
Horizontal pattern 0T



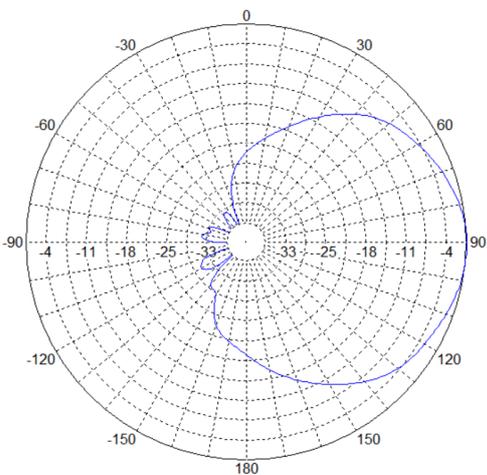
Vertical pattern 0T



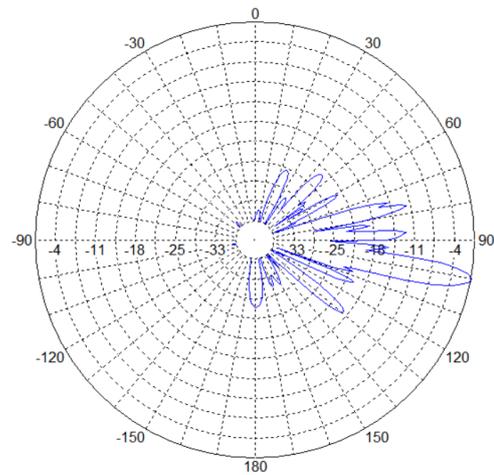
Horizontal pattern 5T



Vertical pattern 5T



Horizontal pattern 10T



Vertical pattern 10T