



TDD-LTE Dual Polarized Smart Antenna Technical Sheet

2496~2690MHz 65° 17dBi 0~8°Electrical Tilt

Electrical Specifications		KDA4-2527D17AE
Frequency range(MHz)		2496~2690
Polarization		±45°
Electrical Downtilt(°)		0~8
Down-tilt Precision(°)		±1
V.S.W.R.		≤1.5
Isolation between Co-polarization Ports(dB)	0°~2° downtilt	≥20
	3°~8° downtilt	≥25
Isolation between Cross-polarization Ports(dB)	0°~2° downtilt	≥25
	3°~8° downtilt	≥28
Transmission from Any Column's Port to Calibration Port(dB)		-26±2
Max.Altitude Difference between Calibration Port and Each Radiation Port (dB)		≤0.7
Max.Phase Difference between Calibration Port and Each Radiation Port (°)		≤5
Single Column	Horizontal -3dB Beamwidth (°)	65±15
	Gain(dBi)	≥17
	Cross Polar Radio (dB)	≥18, ±60°≥10
	Front-to-back Ratio(dB)	≥25
	First Sidelobe Suppression(dB)	≤-15
Broadcasting Pattern	Horizontal Beamwidth(°)	65±5
	Vertical Beamwidth(°)	≥5
	Gain(dBi)	≥17
	Edge level at ±60°(dB)	12±2
	Cross Polar Radio (dB)	≥22, ±60°≥10
	Front-to-back Ratio(dB)	≥28
	First Upper Side Lobe Suppression (dB)	≤-15
	First zero level(dB)	≥-18
Service Beam Pattern	Gain for Operation Pattern at 0°Direction (dBi)	≥22
	Horizontal Beamwidth for Operation Pattern at 0°Direction (°)	≤25
	Horizontal Minor Electric Level for Operation Pattern at 0°Direction (dB)	≤-12
	±60°Direction Gain(dBi)	≥19
	Horizontal Beamwidth for Operation Pattern at ±60°Direction (°)	≤23
	Horizontal Minor Electric Level for Operation Pattern at ±60°Direction (dB)	≤-4
	Cross Polar Radio for Operation Pattern at 0°Direction (Main-direction)	≥22
	Front-to-back Ratio for Operation Pattern at 0°Direction (dB)	≥28



Mechanical Specifications	
Connector	(8+1) × N Female
Connector Position	Bottom
Height/Width/Depth (mm)	1506 × 310 × 128
Weight-kg (without bracket)	18.5
Intermodulation (dBm)	≤-100 at 8*43dBm
RCU	External
Radome Material	UPVC
Radome color	Grey
Mechanical tilt (°)	-5~10
Operating temperature (°C)	-40~60
Rated wind velocity (m/s)	60
Pole Diameter (mm)	50~115
Connectors Position	

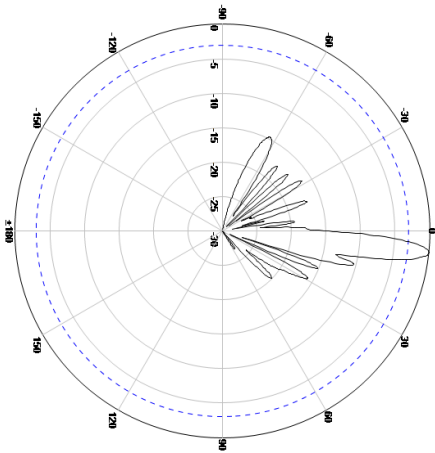


Antenna Weight Value						
	Frequency (MHz)	Port	1/5	2/6	3/7	4/8
65° Broadcasting Pattern	2496~2690	Altitude	0.35	1	1	0.35
		Phase (°)	-115	0	0	-115
0° Service Beam Pattern	2496~2690	Altitude	1	1	1	1
		Phase (°)	0	0	0	0
60° Service Beam Pattern	2496~2690	Altitude	1	1	1	1
		Phase (°)	0	-147	66	-81

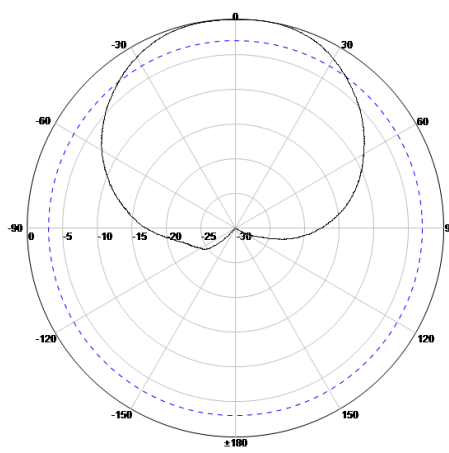


Radiation Pattern (Single Column)

E Plane

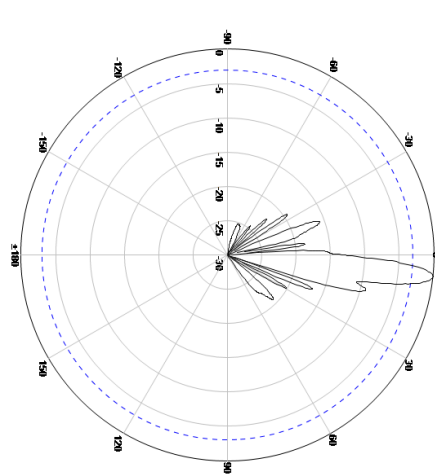


H Plane

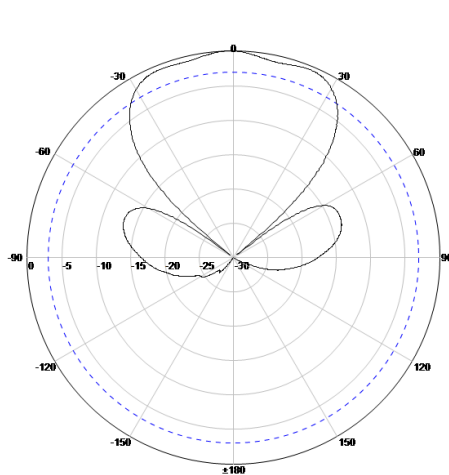


Radiation Pattern (D Band Broadcasting Pattern 65°)

E Plane

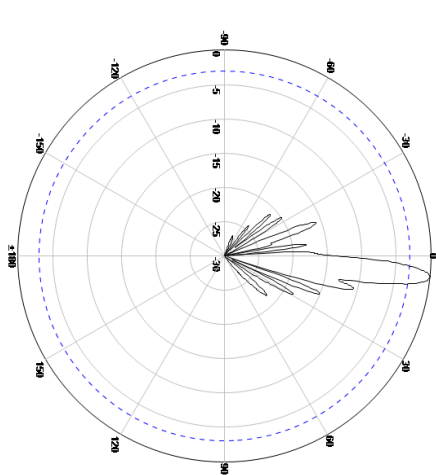


H Plane

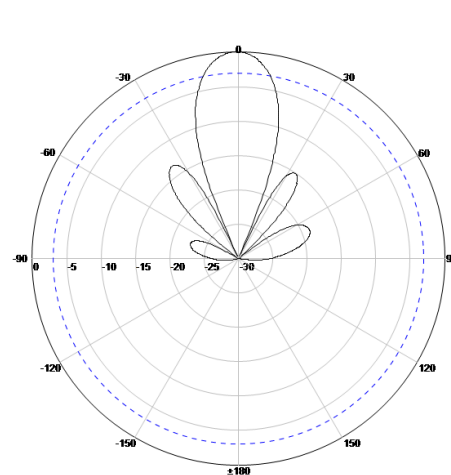


Radiation Pattern (D Band 0° Service Beam Pattern)

E Plane



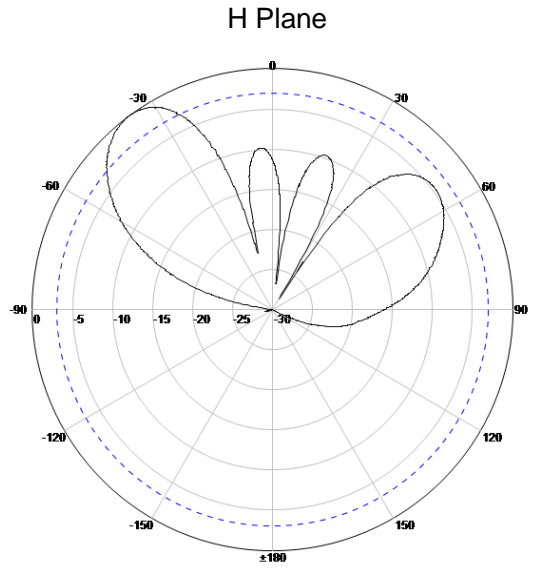
H Plane





Multiband Panel (MHz)	2496~2690
Dual Polarization	X
Half-power BeamWidth	65°

Radiation Pattern (D Band 60° Service Beam Pattern)



Installation Sketch

