

P6BTEU01

6-Port, 65 Degree, Base Station Sector Antenna

Kaelus Next Generation Base Station Antennas

- Innovative slotted disc antenna technology
- High gain over an extended tilt range
- Fully integrated Remote Electrical Tilt, AISG compatible
- Supports MIMO: 2x2 on Low Band and 4x4 on Mid Band



GENERAL	LB R1	MB Y1	MB Y2
Frequency Range	694-960	1695-2690	1695-2690
Gain Over All Tilts [dBi]	17.5	18.0	18.0
Polarization	X	X	X
Azimuth Beamwidth [°]	65	65	65
Electrical Downtilt Range [°]	2-12	2-12	2-12
Ports Per Band	2	2	2

Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [inch mm]	106.5x13.8x6.1 2705x351x155
Net Weight (Antenna) [lbs kg]	70.6 32
Connector Type	4.3-10 Female
Connector Quantity	6
Connector Position	Bottom
Windload, Calculation* [mph km/h]	150 241
Windload, Frontal [lbf N]	275.6 1226
Windload, Lateral [lbf N]	43.6 194
Survival Wind Speed [mph km/h]	150 241
Radome Material	GRP
Radome Color [RAL]	7035 (Light Gray)
Product Environmental Compliance	RoHS
Mech Distance Between Mounting Points - Antenna [inch mm]	101.6 2581
Lightning Protection	Yes - DC Ground
* According to EN 1991-1-4:2005+A 1:2010	
REMOTE ELECTRICAL TILT (RET) INFORMATION	
Type	Integrated, Non-Removable
Power Input	10 - 30V DC
Protocol	3GPP/AISG2.0
RET Interface	8-Pin DIN
RET Interface (Quantity)	2 (1 Male + 1 Female)

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ELECTRICAL SPECIFICATIONS		LB R1			MB Y1/Y2				
Frequency Range [MHz]		698-790	790-862	880-960	1710-1880	1900-2025	2110-2170	2300-2500	2500-2690
Gain, Average [dBi]	Min Tilt	17.0	17.6	17.9	17.2	17.5	17.8	18.1	18.3
	Mid Tilt	17.0	17.6	18.1	17.4	17.7	18.0	18.3	18.5
	Max Tilt	17.0	17.6	17.8	17.2	17.5	17.8	18.1	18.1
Gain, Over All Tilts [dBi]		17.0 ±0.5	17.6 ±0.5	18.0 ±0.5	17.3 ±0.5	17.6 ±0.5	18.0 ±0.5	18.2 ±0.5	18.3 ±0.5
Azimuth Beamwidth [°]		69.0 ±3.5	66.0 ±3.5	63.0 ±2.0	71.0 ±3.0	69.0 ±3.0	66.0 ±3.0	61.5 ±4.0	59.0 ±3.0
Elevation Beamwidth [°]		8.0 ±0.5	7.3 ±0.4	6.5 ±0.4	5.5 ±0.5	5.2 ±0.5	5.0 ±0.5	4.7 ±0.5	4.5 ±0.5
Electrical Downtilt [°]		2-12			2x 2-12				
Elevation Downtilt Deviation [°]		0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3
Front-to-Back Ratio, Total Power, ±30° [dB]		22	22	24	25	25	26	27	27
First Upper Side Lobe Suppression [dB]		17	17	17	17	17	17	17	17
Upper Side Lobe Suppression [dB]		15	15	15	15	15	15	15	10
Polarization [°]		±45			±45				
Impedance [Ω]		50			50				
VSWR		< 1.5:1			< 1.5:1				
Return Loss [dB]		< -14.0			< -14.0				
Cross Polar Isolation [dB]		30			30				
Interband Isolation [dB]		37			37				
Passive Intermodulation (PIM) 3rd order, 2x20W [dBc]		< -153			< -153				
Maximum Effective Power Per Port [W]		350			350				

PRODUCT VARIANT

Single RET Firmware Configuration	P6BTEU01-V1
Multi RET Firmware Configuration	P6BTEU01-V2

SHIPPING AND ORDER INFORMATION

Packing Size: Length, Width, Depth [inch mm]	116.1x19.7x11.8 2949x500x300	
No Bracket: Shipping Weight [lbs kg], P/N	83.8 38.0	P6BTEU01-Vx-P1
Fixed Bracket: Shipping Weight [lbs kg], P/N	90.4 41.0	P6BTEU01-Vx-P2
Tilt Bracket: Shipping Weight [lbs kg], P/N	94.8 43.0	P6BTEU01-Vx-P3

ENVIRONMENTAL COMPLIANCE

ETSI EN300019-1-1 for Storage	Class 1.2
ETSI EN300019-1-2 for Transportation	Class 2.3
ETSI EN300019-1-4 for Environmental Conditions	Class 4.1E
Cold Temperature Survival [°F °C]	-40 -40
Hot Temperature Survival [°F °C]	140 60

Network planning files and datasheet in NGMN XML formats are available on request by email.

Kaelus follows the definitions and recommendations per NGMN P-Basta version 12.0 (www.ngmn.org) within parameters shown on this datasheet.

All specifications are subject to change without notice. Visit www.kaelus.com for the most current data sheets.

