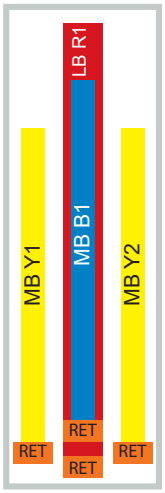
P6KQLU01

8-Port, 65 Degree Ultra Wide Band Base Station Sector Antenna

Kaelus Next Generation Base Station Antennas

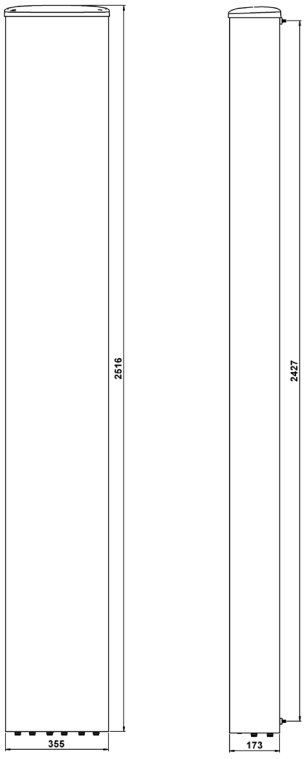
- Innovative Ultra Wide Band Slotted Disc Antenna Technology.
- High Gain Over An Extended Tilt Range.
- Fully Integrated Remote Electrical Tilt, AISG Compatible.
- Supports MIMO: 2x2 on Low Band and 4x4 on High Band.

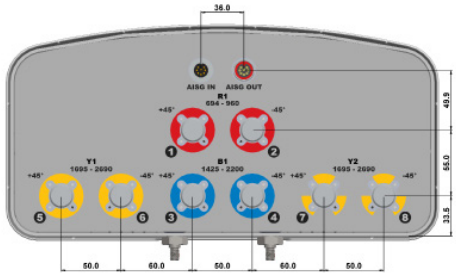


GENERAL	LB R1	MB B1	MB Y1	MB Y2
Frequency Range	694-960	1425-2200	1695-2690	1695-2690
Gain Over All Tilts [dBi]	17.1	17.5	18.0	18.0
Polarization	X	X	X	X
Azimuth Beamwidth [°]	65	65	65	65
Electrical Downtilt Range [°]	2-12	2-10	2-12	2-12
Ports Per Band	2	2	2	2

Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [in]	99.06 x 13.98 x 6.81
Net Weight (Antenna) [lb]	61.73
Connector Type	4.3-10 Female
Connector Quantity	8
Connector Position	Bottom
Windload, Calculation [km/h]	150
Windload, Maximum [N]	1466
Windload, Frontal [N]	1179
Windload, Lateral [N]	175
Survival Wind Speed [km/h]	218
Radome Material	ASA
Radome Color [RAL]	7035 (Light gray)
Product Environmental Compliance	RoHS
Mechanical Distance Between Mounting Points - Antenna [in]	95.96
Lightning Protection	DC ground
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 B1			MB Y1/Y2			
Frequency Range [MHz]		699-798	791-862	880-960	1425-1695	1710-1880	1920-2170	1710-1880	1920-2170	2300-2500	2500-2690
Gain, Average [dBi]	Min Tilt	16.8	17.0	17.5	16.9	17.3	17.9	17.2	17.9	18.1	18.3
	Mid Tilt	17.0	17.2	17.7	17.1	17.5	18.1	17.4	18.1	18.3	18.5
	Max Tilt	16.8	17.0	17.5	16.9	17.3	17.9	17.2	17.9	18.1	18.1
Gain, Over All Tilts [dBi]		16.9 ±0.5	17.1 ±0.5	17.6 ±0.5	17.0 ±0.5	17.4 ±0.5	18.0 ±0.5	17.3 ±0.5	18.0 ±0.5	18.2 ±0.5	18.3 ±0.5
Azimuth Beamwidth [°]		70.0 ±5.0	66.0 ±5.0	63.0 ±5.0	69.0 ±5.0	65.0 ±5	62.0 ±5	67.0 ±5.0	63.0 ±5	60.0 ±5	57.0 ±5
Elevation Beamwidth [°]		7.9 ±1.0	7.2 ±1.0	6.7 ±1.0	6.5 ±1.0	5.4 ±1.0	4.7 ±1.0	6.0 ±1.0	5.7 ±1.0	4.8 ±1.0	4.6 ±1.0
Electrical Downtilt [°]		2-12			2-10			2x 2-12			
Elevation Downtilt Deviation [°]		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Front-to-Back Ratio, Total Power, ±30° [dB]		25	25	25	25	25	25	25	25	25	25
Cross Polar Discrimination Over Sector [dB]		10	10	10	10	10	10	10	10	10	10
First Upper Side Lobe Suppression [dB]		16	16	16	17	17	17	17	17	17	17
Upper Side Lobe Suppression [dB]		15	15	15	15	15	15	15	15	15	15
Polarization [°]		±45			±45			±45			
Impedance [Ω]		50			50			50			
VSWR		< 1.5:1			< 1.5:1			< 1.5:1			
Return Loss [dB]		< -14.0			< -14.0			< -14.0			
Cross Polar Isolation [dB]		28			28			30			
Interband Isolation [dB]		30			30			30			
Passive Intermodulation [dBc]		< -153			< -153			< -153			
Maximum Effective Power Per Port [W]		350			350			350			

PRODUCT VARIANT	
Single RET Firmware Configuration	P6KQLU01-V1
Multi RET Firmware Configuration	P6KQLU01-V2

SHIPPING AND ORDER INFORMATION		
Packing Size: Length, Width, Depth [in]	109.45 x 19.69 x 11.81	
No Bracket: Shipping Weight [lb], P/N	70.54	P6KQLU01-Vx-P1
Fixed Bracket: Shipping Weight [lb], P/N	79.37	P6KQLU01-Vx-P2
Tilt Bracket: Shipping Weight [lb], P/N	81.57	P6KQLU01-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]	-40
Hot Temperature Survival [°F]	140

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 10.0 (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.

Revised: 12 February 2020