

# P6RQLU01

8 Port - 65deg Base Station Sector Antenna

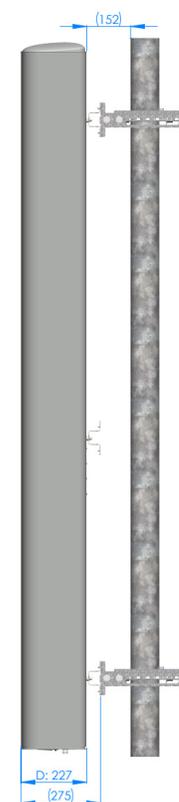
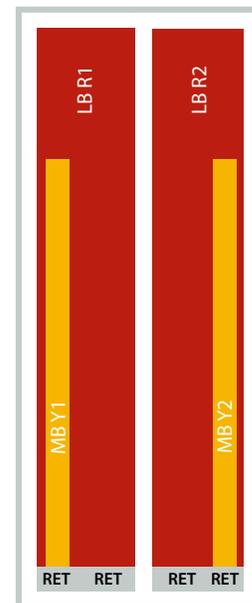
## Kaelus Next Generation Base Station Antennas

- Fully integrated Remote Electrical Tilt, AISG compatible
- Supports MIMO: 4x4 on Low Band and Mid Band
- Optimized for high gain on Low Band
- Electrical specifications as per NGMN P-BASTA version 12.0

GENERAL (BASTA)	LB R1/R2	MB Y1/Y2
Frequency Range	617-746	1695-2690
Gain Over All Tilts [dBi]	16.8	18.6
Polarization	X	X
Azimuth Beamwidth [°]	65	65
Electrical Downtilt Range [°]	0-10	2-12
Ports Per Band	4	4

## Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [inch mm]	96x25.1x8.9   2438x637x227
Net Weight (Antenna) [lbs kg]	110.2   50.1
Gross Weight (Antenna and brackets) [lbs kg]	132.7   60.3
Connector Type, R1,R2,Y1,Y2,Y3,Y4	4.3-10 Female
Connector Quantity, R1,R2,Y1,Y2,Y3,Y4	8
Connector Position	Bottom/Back
Windload, Calculation [mph km/h]	93.2   150
Windload, Frontal [lbf N]	246   1092
Windload, Lateral [lbf N]	70   311
Survival Wind Speed [mph km/h]	124.3   200
Radome Material	GRP
Radome Colour [RAL]	7035 (Light Gray)
Product Environmental Compliance	RoHS
Mech. distance between mounting points - Antenna [inch mm]	77.8   1975
Lightning Protection	Yes - DC Ground



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ELECTRICAL SPECIFICATIONS (BASTA)		LB R1/R2		MB Y1/Y2				
Frequency Range [MHz]		617-698	698-746	1695-1850	1850-1990	1920-2200	2300-2500	2500-2690
Gain, Average [dBi]	Min Tilt	16.9	17.3	16.8	17.8	18.4	19.7	19.5
	Mid Tilt	16.9	17.3	16.7	17.8	18.4	19.7	19.5
	Max Tilt	16.3	16.6	16.4	17.4	18.0	19.1	19.0
Gain, Over All Tilts [dBi]		16.7 ±0.5	17.1 ±0.5	16.6 ±0.5	17.7 ±0.5	18.3 ±0.5	19.5 ±0.5	19.3 ±0.5
Azimuth Beamwidth, -3dB [°]		62.5±5.0	60.1±4.8	79.0±3.6	72.1±5.2	64.1±8.4	52.6±7.1	52.2±5.7
Azimuth Beamwidth, -10dB [°]		129 ±13.0	125 ±9.0	139±6.7	134±7	126.2±10.8	120.8±7.5	116.5±9.2
Azimuth Beam Roll-Off [dB]		8.9±0.7	9.4±0.6	6.9±0.8	8.2±0.6	9.1±1.1	10.0±1.0	10.7±0.9
Azimuth Beam Squint [°]		-3.0 ±5.0	-3.2 ±4.0	-1.3±3.2	-1.7±3.4	-1.6±2.7	-1.2±1.9	-1.3±3.5
Elevation Beamwidth [°]		8.8±0.6	7.9±0.3	6.7±0.6	6.1±0.3	5.7±0.4	4.8±0.3	4.4±0.3
Electrical Downtilt [°]		2x 0-10		2x 2-12				
Elevation Downtilt Deviation [°]		0.5	0.5	0.5	0.5	0.5	0.5	0.5
Front-to-Back Ratio, at 180° [dB]		24	27	25	24	25	32	32
Front-to-Back Ratio, Total Power, ±30° [dB]		19.5	20.8	18.7	22.5	24.2	28.4	28.2
First Upper Side Lobe Suppression [dB]		10.1	10.3	16.2	15.5	17.6	21.0	16.7
Upper Side Lobe Suppression [dB]		10.2	10.3	14.1	14.8	15.7	15.2	12.7
Cross Polar Discrimination, at Boresight [dB]		>21.0	>21.7	>13.5	>16.5	>18.1	>20.6	>19.1
Cross Polar Discrimination, over Sector [dB]		>8.0	>9.8	>10.1	>8.9	>8.8	>7.0	>3.6
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]		> 28		> 30				
Interband Isolation [dB]		> 26		> 28				
Passive Intermodulation (PIM) 3rd order, 2x40W [dBc]		< -153		< -153				
Maximum Effective Power Per Port [W]		250		250				

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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MOUNTING BRACKET	
Article Number*	KA-9012-0002
Tilt Range [°]	0-6
Weight [lbs kg]	22.2   10.1
Pole dimension [inch mm]	2.0-6.1   50-155
*Included in P6RQLU01-V1-P3	

PRODUCT VARIANT	
Single RET Firmware Configuration	P6RQLU01-V1

SHIPPING AND ORDER INFORMATION		
Packing Size: Length, Width, Depth [inch mm]	103.5x30.9x18.9   2629x784x479	
With Tilt Bracket: Shipping Weight [lbs kg], P/N	165   75.0	P6RQLU01-V1-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 Condi-	Class 4.1E 26
Cold Temperature Survival [°F °C]	-40   -40
Hot Temperature Survival [°F °C]	140   60



Midband connectors on bottom plate



Lowband connectors on backside



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](http://www.ngmn.org)) within parameters shown on this datasheet.

All specifications are subject to change without notice. Visit [www.kaelus.com](http://www.kaelus.com) for the most current data sheets.

