

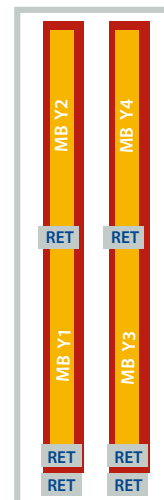
P6WHMU01

12-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: 4x4 on Low Band and Mid Band

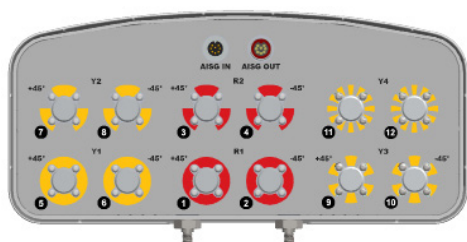
GENERAL	LB R1	LB R2	MB Y1	MB Y2	MB Y3	MB Y4
Frequency Range	694-960	694-960	1695-2690	1695-2690	1695-2690	1695-2690
Gain Over All Tilts [dBi]	15.5	15.5	15.5	15.0	15.5	15.0
Polarization	X	X	X	X	X	X
Azimuth Beamwidth [°]	65	65	65	65	65	65
Electrical Downtilt Range [°]	2-12	2-12	2-12	2-12	2-12	2-12
Ports Per Band	2	2	2	2	2	2



Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [inch mm]	106.5x18.5x6.8 1998x470x178
Net Weight (Antenna) [lbs kg]	71.9 32.6
Connector Type	4.3-10 Female
Connector Quantity	12
Connector Position	Bottom
Windload, Calculation [mph km/h]	93.2 150
Windload, Frontal [lbf N]	271.1 1206
Windload, Lateral [lbf N]	39.1 174
Survival Wind Speed [mph km/h]	124.3 200
Radome Material	ASA
Radome Colour [RAL]	7035 (Light Gray)
Product Environmental Compliance	RoHS
Mech. distance between mounting points - Antenna [inch mm]	1925
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/R2			MB Y1/Y3					MB Y2/Y4					
Frequency Range [MHz]	699-798	791-862	880-960	1695-1880	1900-2025	2110-2170	2300-2500	2500-2690	1695-1880	1900-2025	2110-2170	2300-2500	2500-2690	
Gain, Average [dBi]	Min Tilt	14.9	15.4	15.9	14.5	14.6	15.4	16.2	16.4	14.0	14.1	14.9	15.7	15.9
	Mid Tilt	15.1	15.6	16.1	14.7	14.8	15.6	16.4	16.6	14.2	14.3	15.1	15.9	16.1
	Max Tilt	14.9	15.4	15.9	14.5	14.6	15.4	16.2	16.4	14.0	14.1	14.9	15.7	15.9
Gain, Over All Tilts [dBi]	15.0 ±0.5	15.5 ±0.5	16.0 ±0.5	14.6 ±0.5	14.7 ±0.5	15.5 ±0.5	16.3 ±0.5	16.5 ±0.5	14.1 ±0.5	14.2 ±0.5	15.0 ±0.5	15.8 ±0.5	16.0 ±0.5	
Azimuth Beamwidth [°]	68.0 ±6.0	63.0 ±5.0	57.0 ±5.0	62.0 ±5.0	62.0 ±4.0	69.0 ±5.0	67.0 ±4.0	62.0 ±5.0	62.0 ±5.0	62.0 ±4.0	69.0 ±5.0	67.0 ±4.0	62.0 ±5.0	
Elevation Beamwidth [°]	11.7 ±1.0	10.3 ±1.0	9.2 ±1.0	10.5 ±0.5	9.5 ±0.5	9.0 ±0.5	7.8 ±0.5	7.3 ±0.5	10.5 ±0.5	9.5 ±0.5	9.0 ±0.5	7.8 ±0.5	7.3 ±0.5	
Electrical Downtilt [°]	2x 2-12			2x 2-12					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	0.5	0.5	0.5	
Front-to-Back Ratio, Total Power, ±30° [dB]	22	22	22	25	25	25	25	25	25	25	25	25	25	
First Upper Side Lobe Suppression [dB]	16	16	16	17	17	17	17	17	17	17	17	17	17	
Upper Side Lobe Suppression [dB]	15	15	15	15	15	15	15	10	15	15	15	15	10	
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]	25 (Typical 28)			25 (Typical 28)					25 (Typical 28)					
Interband Isolation [dB]	25			30					30					
Passive Intermodulation [dBc]	< -153			< -153					< -153					
Maximum Effective Power Per Port [W]	350			350					350					

PRODUCT VARIANT

Single RET Firmware Configuration	P6WHMU01-V1
Multi RET Firmware Configuration	P6WHMU01-V2

SHIPPING AND ORDER INFORMATION

Packing Size: Length, Width, Depth [inch mm]	85.5x19.7x11.8 2172x680x282	
No Bracket: Shipping Weight [lbs kg], P/N	91.5 41.5	P6WHMU01-Vx-P1
Fixed Bracket: Shipping Weight [lbs kg], P/N	99.2 45	P6WHMU01-Vx-P2

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 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.

