

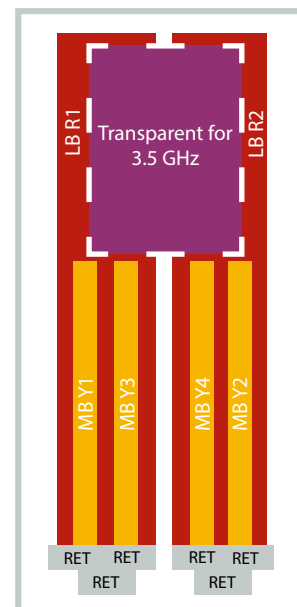
S6IHLU02

12 Port - 65deg Base Station Sector Antenna
with transparency for 3.5GHz

Kaelus Next Generation Base Station Antennas

- Transparent for 3300-4000MHz radios
- Extended transparency area
- Fully integrated Remote Electrical Tilt, AISG compatible
- Supports MIMO: 4x4 on Low Band and Mid Band
- Electrical specifications as per NGMN P-BASTA version 12.0

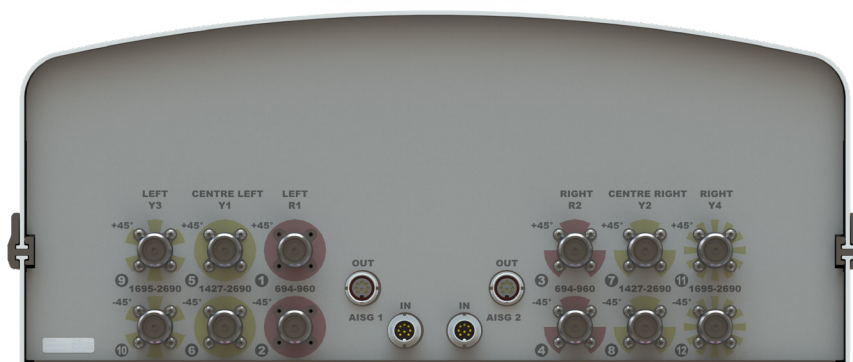
GENERAL (BASTA)	LB R1/R2	MB Y3/Y4	MB Y1/Y2
Frequency Range	694-960	1695-2690	1427-2690
Gain Over All Tilts [dBi]	15.6	17.3	17.3
Polarization	X	X	X
Azimuth Beamwidth [°]	65	65	65
Electrical Downtilt Range [°]	2-12	2-12	2-12
Ports Per Band	4	4	4



Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [inch mm]	96.0x19.7x8.5 2438x500x215
Net Weight (Antenna) [lbs kg]	101.2 46.0
Connector Type, R1,R2,Y1,Y2,Y3,Y4	4.3-10 Female
Connector Quantity, R1,R2,Y1,Y2,Y3,Y4	12
Connector Position	Bottom
Windload, Calculation* [mph km/h]	93.2 150
Windload, Frontal [lbf N]	351 1563
Windload, Lateral [lbf N]	59 264
Survival Wind Speed [mph km/h]	124.3 200
Radome Material	PP - Glass Fibre Reinforced
Radome Colour [RAL]	7047 (Light Gray)
Product Environmental Compliance	RoHS
Mech. distance between mounting points - Antenna [inch mm]	75.4 1914
Lightning Protection	Yes - DC Ground

* According to EN 1991-1-4:2005+A 1:2010



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ELECTRICAL SPECIFICATIONS (BASTA)		LB R1/R2			MB Y3/Y4		MB Y1/Y2		
Frequency Range [MHz]		694-790	790-890	890-960	1695-2200	2300-2690	1427-1518	1695-2180	2300-2690
Gain, Average [dBi]	Min Tilt	15.0	15.5	16.0	16.6	17.7	15.2	16.8	17.8
	Mid Tilt	15.2	15.7	16.2	16.8	17.9	15.4	17.0	18.0
	Max Tilt	14.9	15.3	15.9	16.5	17.6	15.1	16.7	17.7
Gain, Over All Tilts [dBi]		15.1 ±0.4	15.6 ±0.4	16.1 ±0.3	16.8 ±0.5	17.8 ±0.6	15.3 ±0.3	16.9 ±0.7	17.9 ±0.6
Azimuth Beamwidth [°]		70.0 ±4.8	65.2 ±5.0	67.6 ±5.0	68.5 ±5.1	58.1 ±5.9	78.9 ±5.9	66.6 ±6.3	56.4 ±5.2
Elevation Beamwidth [°]		13.1 ±0.9	11.4 ±1.1	10.4 ±0.5	6.8 ±0.9	5.4 ±0.4	9.1 ±0.6	6.9 ±0.8	5.5 ±0.5
Electrical Downtilt [°]		2x 2-12			2x 2-12		2x 2-12		
Elevation Downtilt Deviation [°]		1.14	1.01	1.03	0.44	0.38	0.61	0.56	0.38
Front-to-Back Ratio, at 180° [dB]		27.1	29.5	33.2	27.5	34.2	30.3	31.4	32.1
Front-to-Back Ratio, Total Power, ±30° [dB]		21.1	22.2	22.5	23.8	24.6	21.2	23.2	23.7
First Upper Side Lobe Suppression [dB]		16.5	16.5	16.5	16.9	16.7	16.8	17.2	17.9
Upper Side Lobe Suppression [dB]		14.8	13.9	13.0	13.0	11.7	13.0	13.8	12.1
Cross Polar Discrimination, at Boresight [dB]		20.8	22.0	19.5	12.1	15.7	21.0	22.3	23.1
Cross Polar Discrimination, over Sector [dB]		10.7	11.1	10.4	7.4	9.4	9.8	10.0	9.9
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			> 25		> 25		
Passive Intermodulation (PIM) 3rd order, 2x20W [dBc]		< -150			< -150		< -150		
Maximum Effective Power Per Port [W]		150			150		150		

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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)

PRODUCT VARIANT	
Single RET Firmware Configuration	S6IHLU02-V1
Multi RET Firmware Configuration	S6IHLU02-V2

SHIPPING AND ORDER INFORMATION			
Packing Size: Length, Width, Depth [inch mm]		103.9x25.6x11.8 2638x650x350	
No Bracket:	Shipping Weight [lbs kg], P/N	131.4 60.0	S6IHLU02-Vx-P1
Tilt Bracket:	Shipping Weight [lbs kg], P/N	TBD	Contact Kaelus

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
Operating temperature [°F °C]	-40 -40 to 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.

