

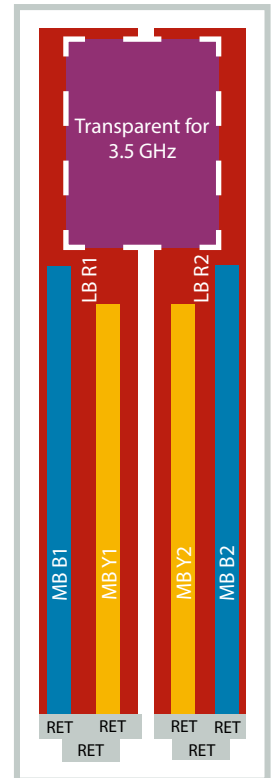
# F6IHEU01

8 Port - 65deg Base Station Sector Antenna  
with integrated diplexer for independent tilt of mid-band arrays and with 3.5GHz transparency

## Kaelus Next Generation Base Station Antennas

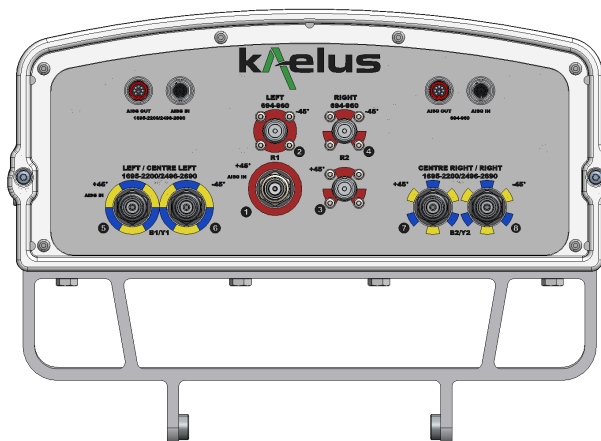
- Transparent for 3300-4000MHz radios
- Fully integrated Remote Electrical Tilt, AISG compatible
- Supports MIMO: 4x4 on Low Band and Mid Band
- Electrical specifications as per NGMN P-BASTA version 12.0

GENERAL (BASTA)	LB R1/R2	MB B1/B2	MB Y1/Y2
Frequency Range	694-960	1695-2200	2496-2690
Gain Over All Tilts [dBi]	16.3	18.0	18.7
Polarization	X	X	X
Azimuth Beamwidth [°]	65	65	65
Electrical Downtilt Range [°]	2-12	2-11	2-12
Ports Per Band	4		4



## Specifications and Layouts

MECHANICAL SPECIFICATIONS	
Antenna Dimensions: Length, Width, Depth [inch mm]	106.5x19.6x8.6   2705x498x217
Net Weight (Antenna) [lbs kg]	119.5   54.3
Gross Weight (Antenna and tilt brackets) [lbs kg]	137.1   62.3
Connector Type, R1,R2,B1/Y1,B2/Y2	4.3-10 Female
Connector Quantity, R1,R2,B1/Y1,B2/Y2	8
Connector Position	Bottom
Windload, Calculation [mph km/h]	93.2   150
Windload, Frontal [lbf N]	223   991
Windload, Lateral [lbf N]	79   349
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]	101.6   2580
Lightning Protection	Yes - DC Ground



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ELECTRICAL SPECIFICATIONS (BASTA)		LB R1/R2			MB B1/B2		MB Y1/Y2
Frequency Range [MHz]		703-788	814-890	890-960	1710-1880	1920-2170	2500-2690
Gain, Average [dBi]	Min Tilt	16.0	16.3	16.6	17.8	18.1	18.7
	Mid Tilt	16.0	16.3	16.6	17.8	18.1	18.7
	Max Tilt	15.5	15.0	15.2	17.8	17.9	18.7
Gain, Over All Tilts [dBi]		15.9 ±0.5	16.0 ±0.5	16.2 ±0.5	17.8 ±0.5	18.0 ±0.5	18.7 ±0.5
Azimuth Beamwidth, -3dB [°]		67.5 ±12.9	62.0 ±8.0	55.0 ±9.7	65.6 ±8.4	60.5 ±8.6	55.3 ±5.5
Azimuth Beamwidth, -10dB [°]		129.9 ±13.4	128.2 ±16.1	133.5 ±15.6	111.7 ±10.0	126.2 ±12.4	105.0 ±10.0
Elevation Beamwidth [°]		7.9 ±0.5	7.1 ±0.6	6.3 ±0.3	5.7 ±0.3	4.8 ±0.3	5.0 ±0.3
Electrical Downtilt [°]		2x 2-12			2x 2-11		2x 2-12
Elevation Downtilt Deviation [°]		0.5	0.5	0.5	0.5	0.5	0.5
Front-to-Back Ratio, Total Power, ±30° [dB]		20	22	22	24	22	22
First Upper Side Lobe Suppression [dB]		15	16	16	17	21	19
Upper Side Lobe Suppression [dB]		14	12	10	15	15	14
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 (PIM) 3rd order, 2x20W [dBc]		< -153			< -153		< -153
Maximum Effective Power Per Port [W]		250			250		250



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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	F6IHEU01-V1
Multi RET Firmware Configuration	F6IHEU01-V2

SHIPPING AND ORDER INFORMATION		
Packing Size: Length, Width, Depth [inch mm]	114.2x23.6x11.8   2900x600x300	
Fixed Bracket: Shipping Weight [lbs kg], P/N	169   77	F6IHEU01-Vx-P2
Tilt Bracket: Shipping Weight [lbs kg], P/N	180   82	F6IHEU01-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 Condi-	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](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.

