

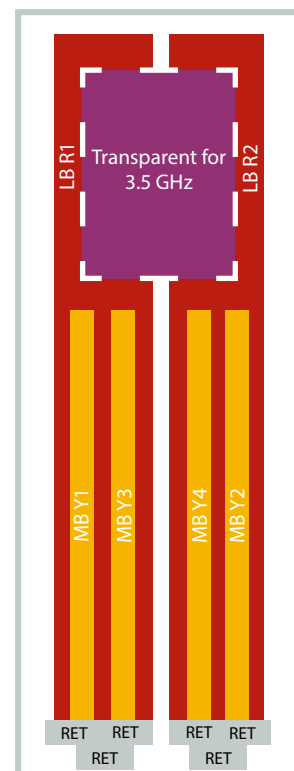
S6IHEU06

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

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

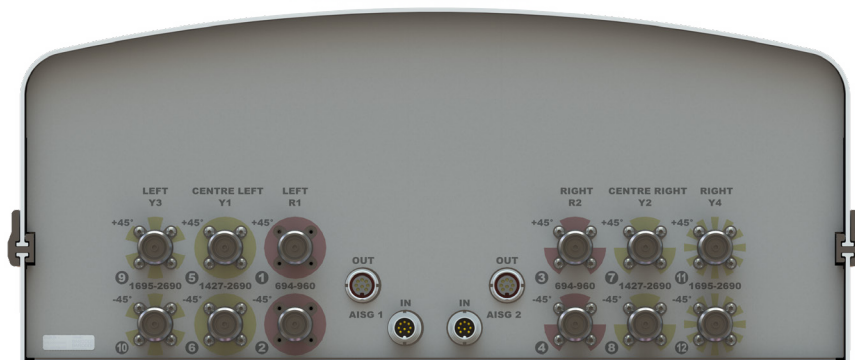
| GENERAL (BASTA) | LB R1/R2 | MB Y3/Y4 | MB Y1/Y4 |
|-------------------------------|----------|-----------|-----------|
| Frequency Range | 694-960 | 1695-2690 | 1427-2690 |
| Gain Over All Tilts [dBi] | 16.6 | 18.0 | 18.0 |
| Polarization | X | X | X |
| Azimuth Beamwidth [°] | 65 | 65 | 65 |
| Electrical 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] | 106.2x19.6x8.6 2698x498x217 |
| Net Weight (Antenna) [lbs kg] | 107.2 48.6 |
| 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] | 351.4 1563 |
| Windload, Lateral [lbf N] | 118.7 528 |
| 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 |

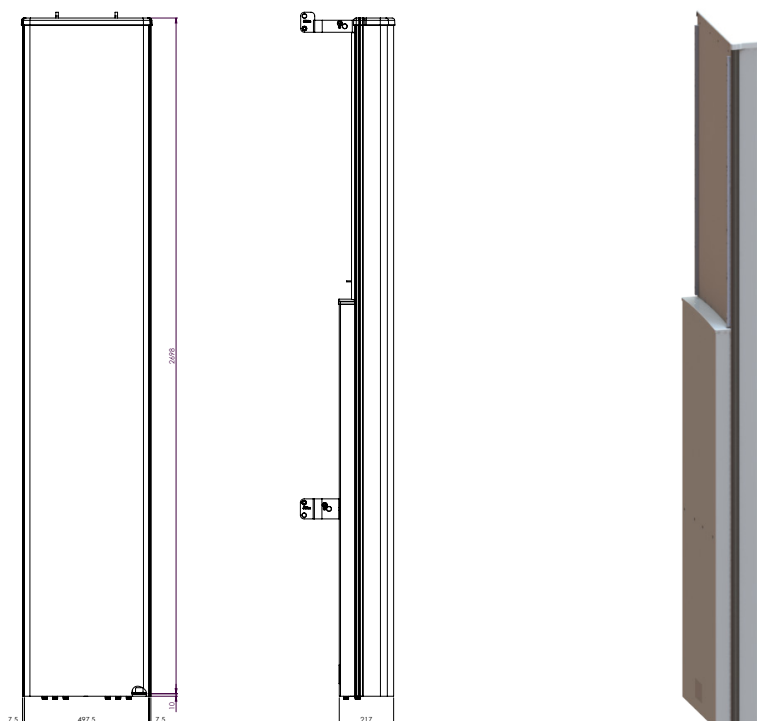
* According to EN 1991-1-4:2005+A 1:2010



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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 | 16.0 | 16.5 | 17.0 | 17.3 | 18.4 | 15.9 | 17.5 | 18.5 |
| | Mid Tilt | 16.2 | 16.7 | 17.2 | 17.5 | 18.6 | 16.1 | 17.7 | 18.7 |
| | Max Tilt | 15.9 | 16.3 | 16.9 | 17.2 | 18.3 | 15.8 | 17.4 | 18.4 |
| Gain, Over All Tilts [dBi] | | 16.1 ±0.4 | 16.6 ±0.4 | 17.1 ±0.3 | 17.4 ±0.7 | 18.5 ±0.6 | 16.0 ±0.3 | 17.6 ±0.7 | 18.6 ±0.6 |
| Azimuth Beamwidth [°] | | 69.9 ±4.8 | 67.9 ±3.0 | 70.7 ±3.4 | 68.3 ±7.1 | 58.1 ±5.9 | 78.3 ±5.6 | 67.4 ±6.3 | 57.3 ±5.6 |
| Elevation Beamwidth [°] | | 9.5 ±0.6 | 8.6 ±0.6 | 8.0 ±0.3 | 5.6 ±0.6 | 4.5 ±0.4 | 7.4 ±0.2 | 5.8 ±0.7 | 4.5 ±0.4 |
| Electrical Downtilt [°] | | 2x 2-12 | | | 2x 2-12 | | 2x 2-12 | | |
| Elevation Downtilt Deviation [°] | | 0.58 | 0.74 | 0.84 | 0.49 | 0.23 | 0.60 | 0.51 | 0.39 |
| Front-to-Back Ratio, at 180° [dB] | | 29.2 | 30.5 | 33.7 | 29.3 | 33.7 | 31.2 | 33.2 | 32.1 |
| Front-to-Back Ratio, Total Power, ±30° [dB] | | 21.7 | 22.0 | 22.5 | 24.7 | 24.8 | 21.5 | 25.9 | 24.6 |
| First Upper Side Lobe Suppression [dB] | | 16.8 | 16.9 | 17.3 | 16.7 | 17.5 | 17.3 | 17.7 | 17.5 |
| Upper Side Lobe Suppression [dB] | | 14.6 | 14.2 | 13.8 | 13.9 | 12.3 | 15.1 | 15.5 | 13.1 |
| Cross Polar Discrimination, at Boresight [dB] | | 22.7 | 22.7 | 22.6 | 12.7 | 15.8 | 19.3 | 23.2 | 23.7 |
| Cross Polar Discrimination, over Sector [dB] | | 10.5 | 11.2 | 10.3 | 7.9 | 9.8 | 9.6 | 11.3 | 9.6 |
| 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 | S6IHEU06-V1 |
| Multi RET Firmware Configuration | S6IHEU06-V2 |

| SHIPPING AND ORDER INFORMATION | | |
|--|--------------------------------|----------------|
| Packing Size: Length, Width, Depth [inch mm] | 114.2x25.6x11.8 2900x650x350 | |
| No Bracket: Shipping Weight [lbs kg], P/N | 149.6 68.0 | S6IHEU06-Vx-P1 |
| Fixed Bracket: Shipping Weight [lbs kg], P/N | TBD | Contact Kaelus |
| 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.

