



**FEATURES / BENEFITS**

- 2 ports / 1 cross pol system in low band (698-960MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690MHz)
- Supporting 4x4 MIMO in high band
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG V2.0 and 3GPP



**Technical features**

**ELECTRICAL SPECIFICATIONS**

| Electrical Specification Header                |      | Low Band Array (698-960 MHz) [R1] |              |              |
|--|------|-----------------------------------|--------------|--------------|
| Frequency Band                                 | MHz  | 698-806                           | 790-894      | 880-960      |
| Gain Typical                                   | dBi  | 15.6                              | 16.3         | 16.1         |
| Gain Over all Tilts                            | dBi  | 15.1 +/- 0.5                      | 15.5 +/- 0.8 | 15.8 +/- 0.3 |
| Azimuth Beamwidth 3dB                          | Deg  | 66.1 +/- 1.8                      | 64.6 +/- 2.5 | 63 +/- 1     |
| Elevation Beamwidth 3dB                        | Deg  | 12.2 +/- 1.1                      | 10.9 +/- 0.7 | 9.6 +/- 1    |
| Cross Polar Discrimination at Boresight        | dB   | 26                                | 24.3         | 20.9         |
| Cross Polar Discrimination over Sector         | dB   | 10.1                              | 10.2         | 11.1         |
| F/B at +/-30deg Total Power                    | dB   | 24.6                              | 24.1         | 22.7         |
| First Upper Side Lobe Suppression              | dB   | 15.3                              | 13.7         | 9            |
| Electrical Downtilt                            | Deg  | 2 to 12                           |              |              |
| Cross Polar Isolation                          | dB   | 26                                |              |              |
| Interband Isolation                            | dB   | 26                                |              |              |
| VSWR   | -    | 1.5                               |              |              |
| Passive Intermodulation (3rd Order, 2 x 43dBm) | dBc  | -153                              |              |              |
| Maximum Effective Power per Port               | Watt | 350                               |              |              |



**ELECTRICAL SPECIFICATIONS**

| Electrical Specification Header                |      | High Band Array (1710-2690 MHz) [Y1] |              |              |              |              |
|--|------|--------------------------------------|--------------|--------------|--------------|--------------|
| Frequency Band                                 | MHz  | 1710-1880                            | 1850-1990    | 1920-2170    | 2300-2400    | 2490-2690    |
| Gain Typical                                   | dBi  | 16.8                                 | 16.9         | 17.2         | 17           | 17.1         |
| Gain Over all Tilts                            | dBi  | 16.1 +/- 0.7                         | 16.6 +/- 0.3 | 16.8 +/- 0.4 | 16.2 +/- 0.8 | 16.6 +/- 0.5 |
| Azimuth Beamwidth 3dB                          | Deg  | 66.2 +/- 7                           | 67 +/- 3.5   | 66 +/- 4     | 69 +/- 3.2   | 64.8 +/- 5.3 |
| Elevation Beamwidth 3dB                        | Deg  | 6.6 +/- 0.4                          | 6.2 +/- 0.3  | 5.8 +/- 0.6  | 5.1 +/- 0.4  | 4.7 +/- 0.3  |
| Cross Polar Discrimination at Boresight        | dB   | 26.3                                 | 23           | 22.9         | 18.6         | 17           |
| Cross Polar Discrimination over Sector         | dB   | 7.5                                  | 6.1          | 6.2          | 8.8          | 5.8          |
| F/B at +/-30deg Total Power                    | dB   | 19.5                                 | 20.4         | 22.4         | 23           | 22.3         |
| First Upper Side Lobe Suppression              | dB   | 17.3                                 | 17.1         | 17.8         | 15.7         | 15.1         |
| Electrical Downtilt                            | Deg  | 2 to 11                              |              |              |              |              |
| Cross Polar Isolation                          | dB   | 26                                   |              |              |              |              |
| Interband Isolation                            | dB   | 26                                   |              |              |              |              |
| VSWR   | -    | 1.5                                  |              |              |              |              |
| Passive Intermodulation (3rd Order, 2 x 43dBm) | dBc  | -153                                 |              |              |              |              |
| Maximum Effective Power per Port               | Watt | 250                                  |              |              |              |              |

**ELECTRICAL SPECIFICATIONS**

| Electrical Specification Header                |      | High Band Array (1710-2690 MHz) [Y2] |              |              |              |              |
|--|------|--------------------------------------|--------------|--------------|--------------|--------------|
| Frequency Band                                 | MHz  | 1710-1880                            | 1850-1990    | 1920-2170    | 2300-2400    | 2490-2690    |
| Gain Typical                                   | dBi  | 16.7                                 | 16.9         | 17.1         | 17.1         | 17.3         |
| Gain Over all Tilts                            | dBi  | 16 +/- 0.7                           | 16.6 +/- 0.3 | 16.7 +/- 0.4 | 16 +/- 1.1   | 16.7 +/- 0.6 |
| Azimuth Beamwidth 3dB                          | Deg  | 66 +/- 6.8                           | 66.7 +/- 3.6 | 66 +/- 4.4   | 69.5 +/- 3.3 | 64.3 +/- 4.5 |
| Elevation Beamwidth 3dB                        | Deg  | 6.7 +/- 0.4                          | 6.3 +/- 0.4  | 5.9 +/- 0.7  | 5.2 +/- 0.4  | 4.7 +/- 0.3  |
| Cross Polar Discrimination at Boresight        | dB   | 20                                   | 18.9         | 19.4         | 17.2         | 17.5         |
| Cross Polar Discrimination over Sector         | dB   | 6.4                                  | 6.1          | 6.7          | 6.9          | 5.2          |
| F/B at +/-30deg Total Power                    | dB   | 19                                   | 21.1         | 22.1         | 22.9         | 21.7         |
| First Upper Side Lobe Suppression              | dB   | 17.8                                 | 16.8         | 19.2         | 15.1         | 17.9         |
| Electrical Downtilt                            | Deg  | 2 to 11                              |              |              |              |              |
| Cross Polar Isolation                          | dB   | 26                                   |              |              |              |              |
| Interband Isolation                            | dB   | 26                                   |              |              |              |              |
| VSWR   | -    | 1.5                                  |              |              |              |              |
| Passive Intermodulation (3rd Order, 2 x 43dBm) | dBc  | -153                                 |              |              |              |              |
| Maximum Effective Power per Port               | Watt | 250                                  |              |              |              |              |



**ELECTRICAL SPECIFICATIONS**

|              |     |      |
|--------------|-----|------|
| Impedance    | Ohm | 50   |
| Polarization | Deg | ±45° |

**MECHANICAL SPECIFICATIONS**

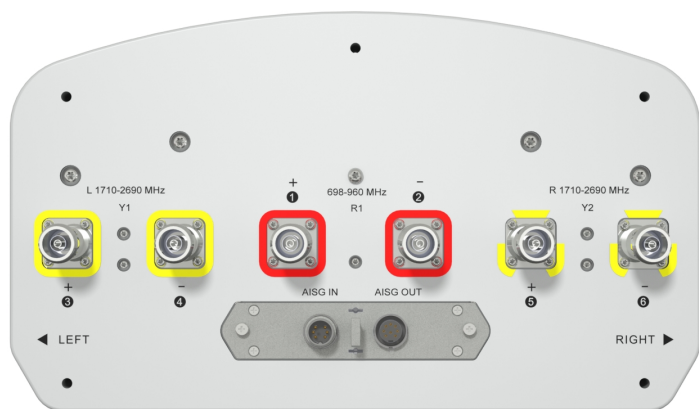
|                                 |         |  |
|---------------------------------|---------|--|
| Dimensions - H x W x D          | mm (in) | 1950 x 350 x 200 (76.8 x 13.8 x 7.9)                           |
| Weight (Antenna Only)           | kg (lb) | 24.5 (54)  |
| Weight (Mounting Hardware only) | kg (lb) | 4.5 (9.9)  |
| Packing size- HxWxD             | mm (in) | 2200 x 445 x 295 (86.6 x 17.5 x 11.6)                          |
| Shipping Weight                 | kg (lb) | 33.5 (73.8)  |
| Connector type                  |         | 6x 4.3-10 female/bottom + 2 AISG connectors (1 male, 1 female) |
| Radome Material / Color         |         | Fiberglass / Light Grey RAL7035                                |

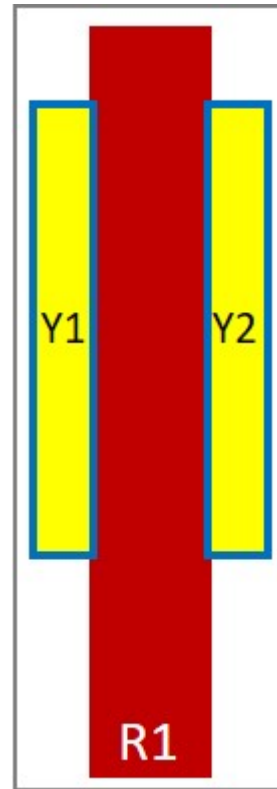
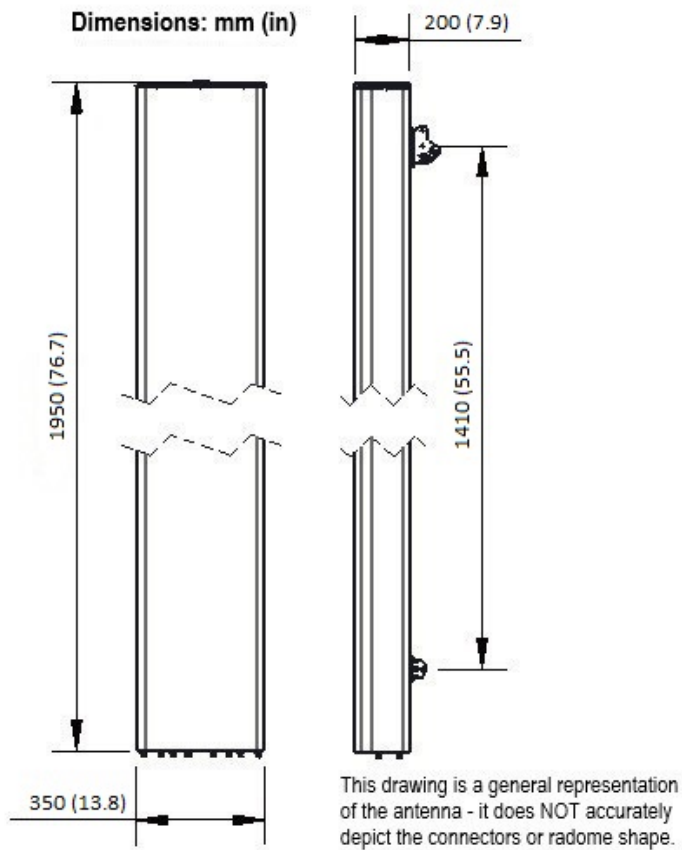
**TESTING AND ENVIRONMENTAL**

|                              |         |                         |
|------------------------------|---------|-------------------------|
| Temperature Range            | °C (°F) | -40 to 60 (-40 to 140 ) |
| Lightning protection         |         | DC Ground               |
| Survival/Rated Wind Velocity | km/h    | 200 (150 )              |
| Wind Load @Rated Wind Front  | N       | 880                     |
| Wind Load @Rated Wind Side   | N       | 456                     |
| Wind Load @Rated Wind Rear   | N       | 498                     |

**ORDERING INFORMATION**

| Order No.           | Configuration            | Mounting Hardware | Mounting pipe Diameter | Shipping Weight |
|---------------------|--------------------------|-------------------|------------------------|-----------------|
| APXVBLL20B_43-C-I20 | Internal RET(ACU-I20-B3) | APM50-B1          | 50-110mm               | 33.5 kg         |





External Document Links

[APM50\\_Series\\_Installation\\_Instructions](#)

Notes

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- For additional mounting information please click "External Document Links".
- **Radiating patterns:** [Request pattern files](#)