



This antenna offers 4 columns (8 Ports) for 3.5GHz beamforming. It is ideal for 5G introduction

FEATURES / BENEFITS

- Beamforming applications in the 3.5GHz band (3300-3800MHz)
- Multiple Individual Beam Control (Unit Beam)
- Single High Powered Beam Option (Broadcast Beam)
- Beam steering flexibility (Service Beam)
- Calibration Port functionality for precise steering performance
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG V2.0 and 3GPP



Technical features

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Cal.board and S parameter (3300-3800 MHz) | |
|--|------|---|-----------|
| Frequency Band | MHz | 3300-3600 | 3600-3800 |
| Coupling between cal. Port to input port | dB | -26+/-2 | |
| Coupling amplitude accuracy | dB | ≤ 0.7 | |
| Coupling phase accuracy | deg | ≤ 5 | |
| VSWR | - | ≤ 1.5 | |
| Maximum Power | Watt | 50 | |
| ISO co-polor @2-6 deg tilt | dB | ≥ 20 | |
| ISO co-polor @7-12 deg tilt | dB | ≥ 25 | |
| ISO cross-polor @2-6 deg tilt | dB | ≥ 25 | |
| ISO cross-polor @7-12 deg tilt | dB | ≥ 27 | |

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Unit Beam (3300-3800 MHz) | |
|---|-----|---|--------------|
| Frequency Band | MHz | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 16.4 | 16.3 |
| Gain Over all Tilts | dBi | 15.6 +/- 0.8 | 15.7 +/- 0.6 |
| Azimuth Beamwidth 3dB | Deg | 88.2 +/- 8.1 | 80.5 +/- 5.7 |
| Elevation Beamwidth 3dB | Deg | 6.2 +/- 0.5 | 5.9 +/- 0.4 |
| Cross Polar Discrimination at Boresight | dB | 20.7 | 22.5 |
| Cross Polar Discrimination over Sector | dB | 16.3 | 14.6 |
| F/B at +/-30deg Total Power | dB | 18.5 | 19.8 |
| First Upper Side Lobe Suppression | dB | 16.4 | 17.2 |
| Electrical Downtilt | Deg | 2 to 12 | |
| VSWR | - | 1.5 | |



ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Broadcasting Beam (3300-3800 MHz) | |
|---|-----|---|--------------|
| Frequency Band | MHz | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 17.6 | 17.6 |
| Gain Over all Tilts | dBi | 17.0 +/- 0.6 | 17.0 +/- 0.6 |
| Azimuth Beamwidth 3dB | Deg | 62.2 +/- 15.3 | 59.1 +/- 5.7 |
| Elevation Beamwidth 3dB | Deg | 6.2 +/- 0.7 | 5.9 +/- 0.5 |
| Cross Polar Discrimination at Boresight | dB | 21.2 | 25.4 |
| Cross Polar Discrimination over Sector | dB | 13.7 | 13.1 |
| F/B at +/-30deg Total Power | dB | 20.6 | 21.6 |
| First Upper Side Lobe Suppression | dB | 12.8 | 17 |
| Electrical Downtilt | Deg | 2 to 12 | |
| VSWR | - | 1.5 | |

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Working Beam (3300-3800 MHz) | |
|---|-----|--|--------------|
| Frequency Band | MHz | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 21.3 | 20.9 |
| Gain Over all Tilts | dBi | 20.7 +/- 0.6 | 20.5 +/- 0.4 |
| Azimuth Beamwidth 3dB | Deg | 24.9 +/- 1 | 23.5 +/- 0.6 |
| Elevation Beamwidth 3dB | Deg | 6.1 +/- 0.6 | 5.9 +/- 0.4 |
| Cross Polar Discrimination at Boresight | dB | 23.1 | 25.6 |
| Cross Polar Discrimination over Sector | dB | 8.3 | 3.6 |
| F/B at +/-30deg Total Power | dB | 24.9 | 23.8 |
| First Upper Side Lobe Suppression | dB | 15.6 | 19.1 |
| Electrical Downtilt | Deg | 2 to 12 | |
| VSWR | - | 1.5 | |

ELECTRICAL SPECIFICATIONS

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

MECHANICAL SPECIFICATIONS

| | | |
|---------------------------------|---------|---|
| Dimensions - H x W x D | mm (in) | 1050 x 288 x 118 (41.3 x 11.3 x 4.6) |
| Weight (Antenna Only) | kg (lb) | 10.5 (23.1) |
| Weight (Mounting Hardware only) | kg (lb) | 4.5 (9.9) |
| Packing size- HxWxD | mm (in) | 1300 x 370 x 196 (51.2 x 14.6 x 7.7) |
| Shipping Weight | kg (lb) | 19 (41.9) |
| Connector type | | 8x 4.3-10 female + 2 AISG connectors (1 male, 1 female) |
| Radome Material / Color | | ASA / Light Grey RAL7035 |



APXV9TY10AB_43-C-I20

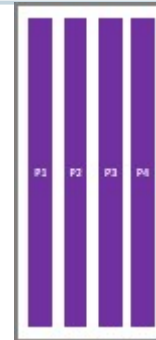
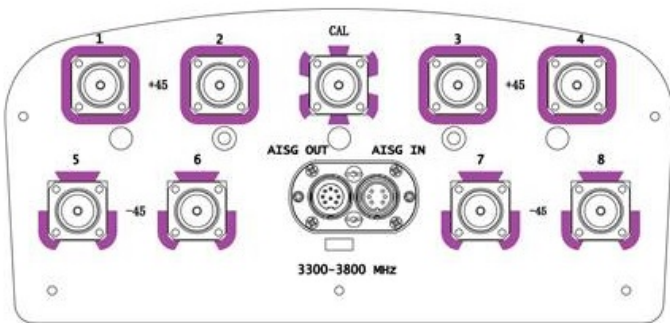
TDD 8T8R Antenna, X-Pol, 1.0m, 3300-3800MHz, 90deg unit beam, Integrated RET

TESTING AND ENVIRONMENTAL

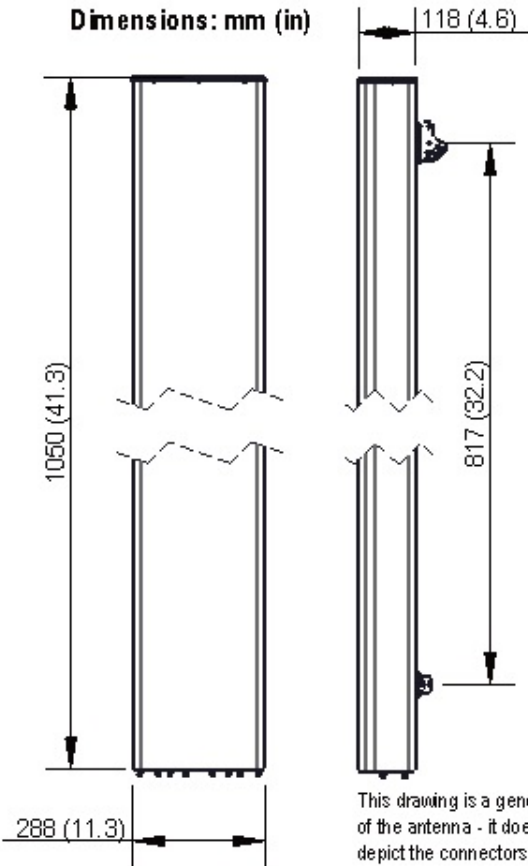
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|------------------------------|---------|-------------------------|
| Temperature Range | °C (°F) | -40 to 60 (-40 to 140) |
| Lightning protection | | DC Ground |
| Survival/Rated Wind Velocity | km/h | 200 (150) |
| Wind Load @Rated Wind Front | N | 218 |
| Wind Load @Rated Wind Side | N | 224 |
| Wind Load @Rated Wind Rear | N | 253 |

ORDERING INFORMATION

| Order No. | Configuration | Mounting Hardware | Mounting pipe Diameter | Shipping Weight |
|----------------------|--------------------------|-------------------|------------------------|-----------------|
| APXV9TY10AB_43-C-I20 | Internal RET(ACU-I20-B1) | APM50-B1 | 50-110mm | 19.0 Kg |



Dimensions: mm (in)



This drawing is a general representation of the antenna - it does NOT accurately depict the connectors or radome shape.

External Document Links



[APM50_Series_Installation_Instructions](#)

Notes

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- Horizontal dipole column spacing: 42mm.
- For additional mounting information please click "External Document Links".
- **Radiating patterns:** [Request pattern files](#)