

APXVTMTY15AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.5m, 2300-2690/3300-3800MHz, 90deg unit beam, MQ4/MQ5 Connectors, Integrated RET



FEATURES / BENEFITS

- TDD 2x MQ ports in 2300-2690MHz
- TDD 2x MQ ports in 3300-3800MHz
- 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 (2300-2690/3300-3800 MHz) [Y1/P1] | | | |
|--|------|--|-----------|-----------|-----------|
| Frequency Band | MHz | 2300-2490 | 2490-2690 | 3300-3600 | 3600-3800 |
| Coupling between cal. Port to input port | dB | -26+/-2 | | | |
| Coupling amplitude accuracy | dB | ≤ 0.9 | | | |
| Coupling phase accuracy | deg | ≤ 7 | | | |
| VSWR | - | ≤ 1.5 | | | |
| Maximum Power | Watt | 80 | 80 | 50 | 50 |
| ISO co-polor @ 2-6 deg tilt | dB | ≥ 19 | | | |
| ISO co-polor @ 7-12 deg tilt | dB | ≥ 25 | | | |
| ISO cross-polor @ 2-6 deg tilt | dB | ≥ 24 | | | |
| ISO cross-polor @ 7-12 deg tilt | dB | ≥ 25 | | | |

APXVTMTY15AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.5m, 2300-2690/3300-3800MHz, 90deg unit beam, MQ4/MQ5 Connectors, Integrated RET



ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Unit Beam (2300-2690/3300-3800 MHz) [Y1/P1] | | | |
|---|-----|---|--------------|--------------|--------------|
| Frequency Band | MHz | 2300-2490 | 2490-2690 | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 18.1 | 18.3 | 16.1 | 16.1 |
| Gain Over all Tilts | dBi | 17.6 +/- 0.5 | 17.3 +/- 1 | 15.6 +/- 0.5 | 15.6 +/- 0.5 |
| Azimuth Beamwidth 3dB | Deg | 76.9 +/- 7.6 | 86.8 +/- 4.4 | 78.7 +/- 6.2 | 71.5 +/- 4.6 |
| Elevation Beamwidth 3dB | Deg | 4.8 +/- 0.5 | 4 +/- 0.1 | 6 +/- 0.1 | 5.8 +/- 0.5 |
| Cross Polar Discrimination at Boresight | dB | 16 | 18 | 16.4 | 14 |
| Cross Polar Discrimination over Sector | dB | 4.9 | 9 | 10.9 | 13 |
| F/B at +/-30deg Total Power | dB | 23.3 | 21 | 18 | 18.1 |
| First Upper Side Lobe Suppression | dB | 17 | 18.5 | 16 | 17 |
| Electrical Downtilt | Deg | 2 to 12 | | | |
| VSWR | - | 1.5 | | | |

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Broad casting Beam (2300-2690/3300-3800 MHz) [Y1/P1] | | | |
|-----------------------------------|-----|--|-------------|--------------|--------------|
| Frequency Band | MHz | 2300-2490 | 2490-2690 | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 18.4 | 19 | 17.7 | 17.9 |
| Gain Over all Tilts | dBi | 17.9 +/- 0.5 | 18.0 +/- 1 | 17.2 +/- 0.5 | 17.4 +/- 0.5 |
| Azimuth Beamwidth 3dB | Deg | 64.3 +/- 3.1 | 63 +/- 4.8 | 50.3 +/- 5.2 | 48.2 +/- 5.5 |
| Elevation Beamwidth 3dB | Deg | 5 +/- 0.1 | 4.4 +/- 0.5 | 6 +/- 0.1 | 5.9 +/- 0.6 |
| F/B at +/-30deg Total Power | dB | 23.1 | 23 | 20.5 | 21 |
| First Upper Side Lobe Suppression | dB | 16 | 17.8 | 15.8 | 13.7 |
| Electrical Downtilt | Deg | 2 to 12 | | | |
| VSWR | - | 1.5 | | | |

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Radiation Parameter - Working Beam (2300-2690/3300-3800 MHz) [Y1/P1] | | | |
|---------------------------------|-----|--|--------------|--------------|--------------|
| Frequency Band | MHz | 2300-2490 | 2490-2690 | 3300-3600 | 3600-3800 |
| Gain Typical | dBi | 20.9 | 22.2 | 21.3 | 20.8 |
| Gain Over all Tilts | dBi | 20.4 +/- 0.5 | 21.7 +/- 0.5 | 20.8 +/- 0.5 | 20.3 +/- 0.5 |
| Azimuth Beamwidth 3dB | Deg | 23.6 +/- 0.5 | 21.5 +/- 0.8 | 21.9 +/- 1 | 20.9 +/- 1 |
| F/B at +/-30deg Total Power | dB | 20.6 | 19 | 19.7 | 17.6 |
| Electrical Downtilt | Deg | 2 to 12 | | | |
| VSWR | - | 1.5 | | | |

ELECTRICAL SPECIFICATIONS

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

APXVTMTY15AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.5m, 2300-2690/3300-3800MHz, 90deg unit beam, MQ4/MQ5 Connectors, Integrated RET



MECHANICAL SPECIFICATIONS

| | | |
|--|---------|--|
| Dimensions - H x W x D | mm (in) | 1600 x 499 x 199 (63 x 19.6 x 7.8) |
| Weight (Antenna Only) | kg (lb) | 33.2 (73.2) |
| Weight (Mounting Hardware only) | kg (lb) | 4.5 (9.9) |
| Packing size- HxWxD | mm (in) | 1885 x 595 x 295 (74.2 x 23.4 x 11.6) |
| Shipping Weight | kg (lb) | 43.9 (96.8) |
| Connector type | | 4x Cluster connectors MQ4/MQ5 + 2 AISG connectors (1 male, 1 female) |
| Radome Material / Color | | Fiber Glass / 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 | 514 |
| Wind Load @Rated Wind Side | N | 446 |
| Wind Load @Rated Wind Rear | N | 596 |

ORDERING INFORMATION

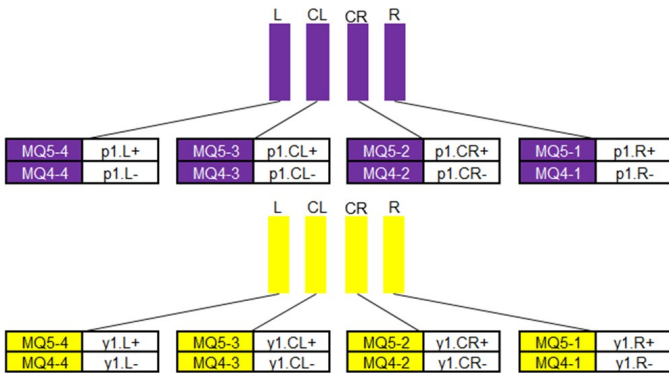
| Order No. | Configuration | Mounting Hardware | Mounting pipe Diameter | Shipping Weight |
|-----------------------|---------------------------|-------------------|------------------------|-----------------|
| APXVTMTY15AB_MQ-C-I20 | Internal RET (ACU-I20-B2) | APM50-B1 | 50-110mm | 43.9 kg |



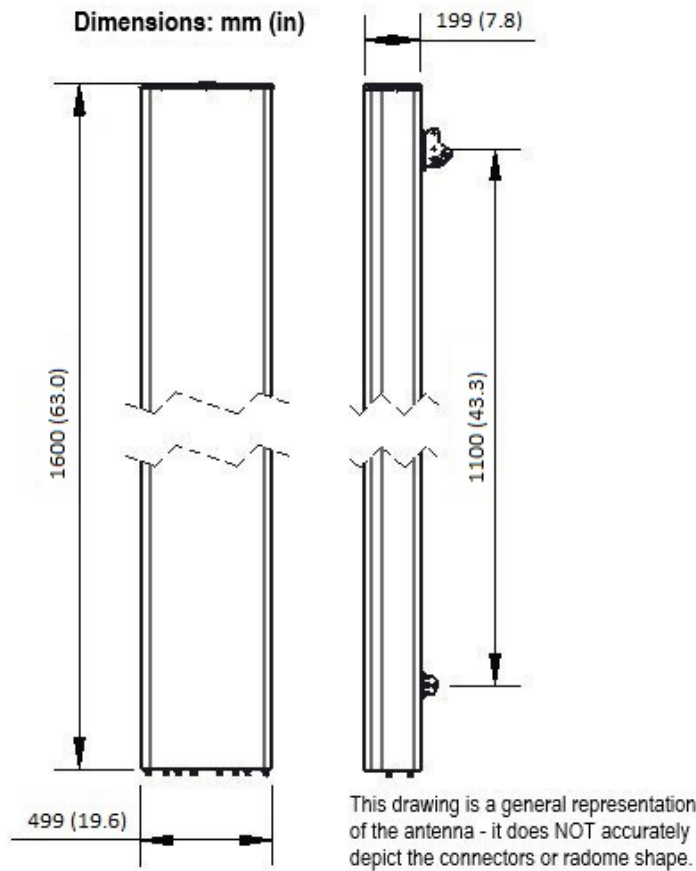
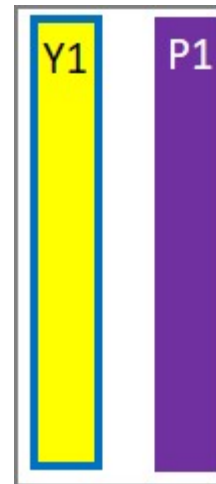
PRODUCT DATASHEET

APXVTMTY15AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.5m, 2300-2690/3300-3800MHz, 90deg unit beam, MQ4/MQ5 Connectors, Integrated RET



Physical array & port mapping according to AISG naming convention:
Left - Center Left - Center Right - Right (seen from front of antenna)



External Document Links
[APM50_Series_Installation_Instructions](#)

- Notes
- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
 - Horizontal dipole column spacing: 70mm & 50mm.

PRODUCT DATASHEET

APXVTMTY15AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.5m, 2300-2690/3300-3800MHz, 90deg unit beam, MQ4/MQ5 Connectors, Integrated RET



- MQ4/MQ5 cluster connectivity follow NGMN.
- For additional mounting information please click "External Document Links".
- **Radiating patterns:** [Request pattern files](#)