

APXVLL09B_43-C-I20

Features

- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- Supporting 4x4 MIMO
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG v2.0 and 3GPP



| | | | |
|------------------|-------------------------|---|------|
| PRODUCT OVERVIEW | Frequency Range (MHz) | (2x) 1710-2690 | |
| | Array | ■ Y1 | ■ Y2 |
| | Connector | 1-2 | 3-4 |
| | | 4 PORTS | |
| | Polarization | XPOL | |
| | Azimuth Beamwidth (avg) | 65° | |
| | Electrical Downtilt | 2-12° | |
| | Dimensions | 845 x 320 x 123 mm (33.3 x 12.6 x 4.8 in) | |

ORDERING OPTIONS

Select from the following ordering options

| ANTENNA MODEL NUMBER | CONFIGURATION | MOUNTING HARDWARE | MOUNTING PIPE DIAMETER | SHIPPING WEIGHT |
|----------------------|--|------------------------------------|------------------------|--------------------|
| APXVLL09B_43-C-I20 | ACU-I20-B2 Internal RET Included | APM50-B1 Beam Tilt Kit Included | 50-110 mm (2.0-4.3 in) | 16.5 kg (36.4 lbs) |



Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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ELECTRICAL SPECIFICATIONS

Y1

| | | | | | | | |
|---|----------------|---------|--------------------------------------|--------------|--------------|--------------|-------------|
| Frequency Range | | MHz | 1710-2690 | | | | |
| | | MHz | 1710-1880 | 1850-1990 | 1920-2170 | 2300-2400 | 2490-2690 |
| Polarization | | --- | ±45° | | | | |
| Gain | Over all Tilts | dBi | 15 ± 0.1 | 15 ± 0.1 | 15 ± 0.1 | 15 ± 0.1 | 15.6 ± 0.5 |
| | Max Gain | dBi | 15.1 | 15.1 | 15.1 | 15.1 | 16.1 |
| Azimuth Beamwidth (3 dB) | | degrees | 66.8° ± 2.5° | 68.2° ± 3° | 69.4° ± 2.5° | 67° ± 2.5° | 60° ± 4° |
| Elevation Beamwidth (3 dB) | | degrees | 13.2° ± 0.5° | 12.5° ± 0.5° | 11.7° ± 1° | 10.1° ± 0.5° | 9.3° ± 0.5° |
| Electrical Downtilt | | degrees | 2-12° | | | | |
| Impedance | | Ohms | 50Ω | | | | |
| VSWR (Return Loss) | | --- | 1.5:1 (-14 dB) | | | | |
| Passive Intermodulation | | dBc | -150 (3rd Order for 2x20 W Carriers) | | | | |
| Front-to-Back Ratio, Total Power, ± 30° | | dB | 24 | 24 | 23 | 23 | 23 |
| First Upper Side Lobe Suppression | | dB | 19 | 19 | 18 | 16.5 | 15 |
| Cross-Pol Over Sector | | dB | 14 | 14 | 13 | 12 | 12.4 |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) | | dB | 14 | 16 | 17 | 21 | 23 |
| Maximum Effective Power Per Port | | Watts | 250 W | | | | |
| Cross Polar Isolation | | dB | 26 | | | | |
| Interband Isolation | | dB | 26 | | | | |

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

Y2

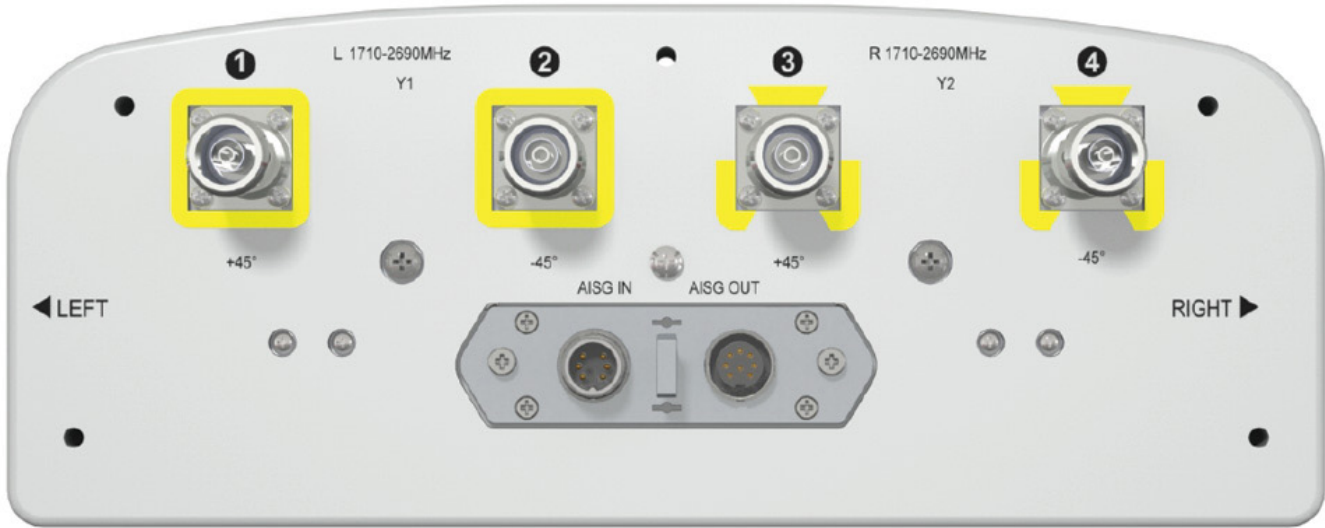
| | | | | | | | |
|---|----------------|---------|--------------------------------------|--------------|------------|--------------|-------------|
| Frequency Range | | MHz | 1710-2690 | | | | |
| | | MHz | 1710-1880 | 1850-1990 | 1920-2170 | 2300-2400 | 2490-2690 |
| Polarization | | --- | ±45° | | | | |
| Gain | Over all Tilts | dBi | 15 ± 0.1 | 15 ± 0.1 | 15 ± 0.1 | 15.3 ± 0.5 | 15.6 ± 0.5 |
| | Max Gain | dBi | 15.1 | 15.1 | 15.1 | 15.8 | 16.1 |
| Azimuth Beamwidth (3 dB) | | degrees | 67° ± 3.5° | 69.1° ± 3.6° | 70.1° ± 2° | 67.1° ± 2.4° | 60.9° ± 4° |
| Elevation Beamwidth (3 dB) | | degrees | 13.2° ± 0.5° | 12.4° ± 0.5° | 11.6° ± 1° | 10.1° ± 0.5° | 9.3° ± 0.5° |
| Electrical Downtilt | | degrees | 2-12° | | | | |
| Impedance | | Ohms | 50Ω | | | | |
| VSWR (Return Loss) | | --- | 1.5:1 (-14 dB) | | | | |
| Passive Intermodulation | | dBc | -150 (3rd Order for 2x20 W Carriers) | | | | |
| Front-to-Back Ratio, Total Power, ± 30° | | dB | 24 | 24.9 | 24 | 23.2 | 22 |
| First Upper Side Lobe Suppression | | dB | 16 | 16.9 | 16 | 15 | 13 |
| Cross-Pol Over Sector | | dB | 14 | 12.3 | 12 | 11.6 | 12 |
| Cross Polar Discrimination (XPD) at Mechanical Boresight (0°) | | dB | 15 | 17 | 18 | 22.2 | 23.8 |
| Maximum Effective Power Per Port | | Watts | 250 W | | | | |
| Cross Polar Isolation | | dB | 26 | | | | |
| Interband Isolation | | dB | 26 | | | | |

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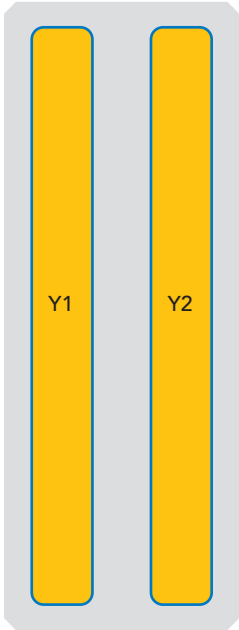
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BOTTOM VIEW - LABELING



ARRAY LAYOUT

| ARRAY | FREQUENCY | CONNECTOR | CONNECTOR TYPE | RET | AISG RET UID |
|-------|---------------|-----------|--------------------|-----|-----------------|
| ■ Y1 | 1710-2690 MHz | 1-2 | (2x) 4.3-10 Female | Y1 | RFxxxxxxxxxx-Y1 |
| ■ Y2 | 1710-2690 MHz | 3-4 | (2x) 4.3-10 Female | Y2 | RFxxxxxxxxxx-Y2 |



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

| | | | |
|--|---------------------------------------|------------|---|
| Length | | mm (in) | 845 (33.3) |
| Width | | mm (in) | 320 (12.6) |
| Depth | | mm (in) | 123 (4.8) |
| Net Weight - Antenna Only | | kg (lbs) | 9.4 (20.7) |
| Net Weight - Mounting Hardware Only | | kg (lbs) | 4.5 (9.9) |
| Wind Load Rated at 150 km/h (93 mph) | Front | N (lbf) | 224 (50) |
| | Side | N (lbf) | 144 (32) |
| | Rear | N (lbf) | 260 (58) |
| Survival Wind Speed / Rated Wind Speed | | km/h (mph) | 200 (150) |
| Connector Type | | -- | (4x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom |
| Radome Color | | --- | Light Grey |
| Radome Material | | --- | Fiberglass |
| Lightning Protection | | --- | DC Ground |
| Shipping | Packing Size (Length x Width x Depth) | mm (in) | 1120 x 415 x 215 (44.1 x 16.3 x 8.5) |
| | Shipping Weight | kg (lbs) | 16.5 (36.4) |

ENVIRONMENTAL SPECIFICATIONS

| | | |
|----------------------------------|---------|----------------------------------|
| Environmental Standard | --- | ETS 300 019 |
| Operating Temperature | degrees | -40° to +60° C (-40° to +140° F) |
| Product Environmental Compliance | --- | Product is RoHS Compliant |

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ACCESSORIES

Accessories may be ordered separately unless otherwise indicated.

| ITEM | MODEL NUMBER | WEIGHT |
|--|--------------|------------------|
| Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) <i>Shipped with antenna</i> | APM50-B1 | 4.5 kg (9.9 lbs) |

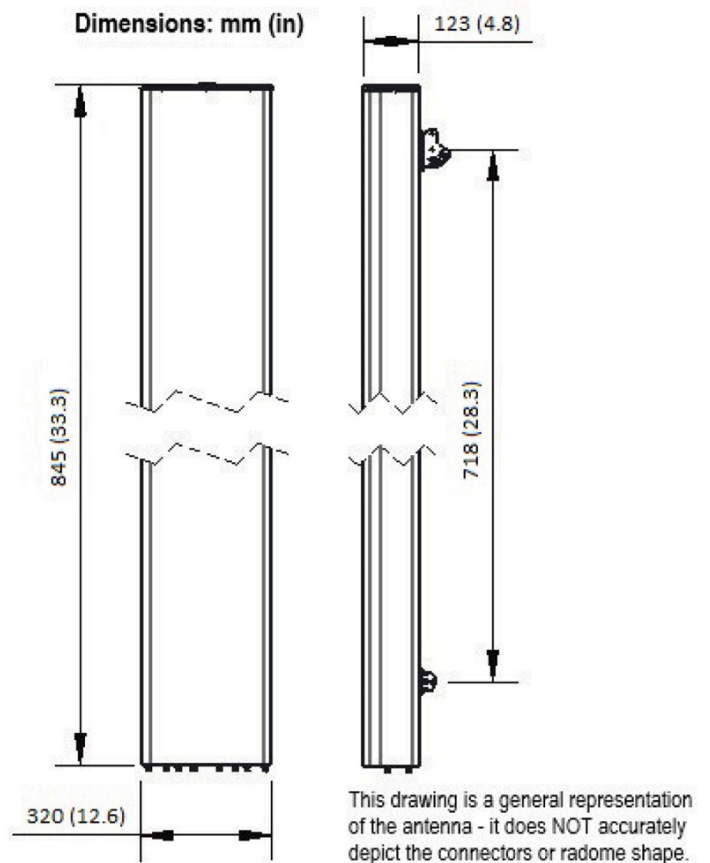
INSTALLATION

Please read all installation notes before installing product.

| | |
|--|--|
|  | Always attach the antenna using all mounting points. |
| | Do not install antenna with the connectors facing upwards. |

EXTERNAL DOCUMENT LINKS

[APM50 Mounting Kit Series Installation Instructions](#)



NOTES

Specifications follow BASTA guidelines.

For additional mounting information, please check **External Document Links**.

For Radiating Patterns: [Request pattern files](#)