



APXVAALL12N_43-U-NA20

8-Ports, X-Pol, Panel Antenna, 1.2m, 2x 617-894/2x 1695-2690 MHz 65deg, Integrated RET

FEATURES / BENEFITS

Narrow 499 mm radome for reduced windloading and easier zoning

- MIMO 4x4 in low-band and mid-band
- Integrated and field replaceable RET
- ACU model number: x2 ACU-A20-SR, ACU HW 05
- Compliant with AISG V2.0 and 3GPP
- AISG jumper cable included
- Mechanical down tilt kit included



Technical features

ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Low Band Arrays (617-894 MHz) Ports 1-4 | | |
|---------------------------------|------|---|--------------|--------------|
| Frequency Band | MHz | 617-698 | 698-806 | 806-894 |
| Gain | dBi | 13.0 | 13.9 | 14.3 |
| Azimuth Beamwidth 3dB | Deg | 70 +/- 8 | 63 +/- 6 | 57 +/-6 |
| Elevation Beamwidth 3dB | Deg | 19.1 +/- 0.8 | 17.4 +/- 1.3 | 15.2 +/- 1.0 |
| Cross-Pol at Boresight | dB | 20 | 21 | 17 |
| F/B at 180 Copolar | dB | 26 | 24 | 29 |
| Electrical Downtilt | Deg | 2 to 18 | 2 to 18 | 2 to 18 |
| First Upper Side Lobe | dB | 14 | 15 | 16 |
| VSWR | - | 1.5:1 | 1.5:1 | 1.5:1 |
| Return Loss | dB | -14 | -14 | -14 |
| Cross Polar Isolation | dB | 25 | 25 | 25 |
| 3rd Order PIM 2 x 43dBm | dBc | -153 | -153 | -153 |
| Maximum CW Power per Port | Watt | 300 | 300 | 300 |
| Gain Over All Tilts | dBi | 12.4 +/- .6 | 13.4 +/- .5 | 13.7 +/- .6 |
| Cross-Pol Over Sector | dB | 8 | 7 | 6 |
| F/B at +/-30 Total Power | dB | 18 | 20 | 21 |
| Upper Side Lobe Peak to +20 | dB | 22 | 22 | 17 |



ELECTRICAL SPECIFICATIONS

| Electrical Specification Header | | Mid Band Arrays (1695-2690 MHz) Ports 5-8 | | | |
|---------------------------------|------|---|--------------|--------------|--------------|
| Frequency Band | MHz | 1695-1880 | 1850-1990 | 1920-2200 | 2200-2690 |
| Gain | dBi | 16.2 | 16.6 | 17.1 | 17.4 |
| Azimuth Beamwidth 3dB | Deg | 69 +/- 8 | 64 +/- 8 | 61 +/- 5 | 57 +/- 7 |
| Elevation Beamwidth 3dB | Deg | 9.5 +/- 0.9 | 8.7 +/- 0.5 | 7.7 +/- 0.7 | 6.5 +/- 0.8 |
| Cross-Pol at Boresight | dB | 15 | 21 | 17 | 19 |
| F/B at 180 Copolar | dB | 29 | 28 | 29 | 27 |
| Electrical Downtilt | Deg | 2 to 12 | 2 to 12 | 2 to 12 | 2 to 12 |
| First Upper Side Lobe | dB | 19 | 19 | 16 | 17 |
| VSWR | - | 1.5:1 | 1.5:1 | 1.5:1 | 1.5:1 |
| Return Loss | dB | -14 | -14 | -14 | -14 |
| Cross Polar Isolation | dB | 25 | 25 | 25 | 25 |
| 3rd Order PIM 2 x 43dBm | dBc | -153 | -153 | -153 | -153 |
| Maximum CW Power per Port | Watt | 250 | 250 | 250 | 250 |
| Gain Over All Tilts | dBi | 15.2 +/- 1.0 | 15.9 +/- 0.7 | 16.3 +/- 0.8 | 16.7 +/- 0.7 |
| Cross-Pol over Sector | dB | 5 | 6 | 5 | 3 |
| F/B at +/-30 Total Power | dB | 23 | 22 | 23 | 21 |
| Upper Side Lobe Peak to +20 | dB | 16 | 17 | 16 | 14 |

ELECTRICAL SPECIFICATIONS

| | | |
|--------------|-----|--------|
| Impedance | Ohm | 50 |
| Polarization | Deg | +/- 45 |

MECHANICAL SPECIFICATIONS

| | | |
|---------------------------------|---------|-------------------------------------|
| Dimensions - H x W x D | mm (in) | 1219 x 499 x 215 (48 x 19.7 x 8.5) |
| Weight (Antenna Only) | kg (lb) | 22 (49) |
| Weight (Mounting Hardware only) | kg (lb) | 4.5 (10) |
| Packing size- HxWxD | mm (in) | 1430 x 560 x 265 (56.3 x 22 x 10.4) |
| Shipping Weight | kg (lb) | 30 (66) |
| Connector type | | 8 x 4.3-10 female at bottom |
| Radome Material / Color | | ASA / Light Grey RAL7035 |

TESTING AND ENVIRONMENTAL

| | | |
|------------------------------|---------|-------------------------|
| Temperature Range | °C (°F) | -40 to 60 (-40 to 140) |
| Lightning protection | | Direct Ground |
| Survival/Rated Wind Velocity | km/h | 240 (150) |
| Wind Load @Rated Wind Front | N | 407 |
| Wind Load @Rated Wind Side | N | 382 |
| Wind Load @Rated Wind Rear | N | 473 |

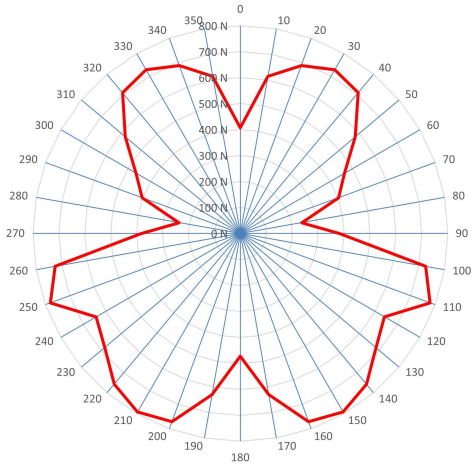
ORDERING INFORMATION

| Order No. | Configuration | Mounting Hardware | Mounting pipe Diameter | Shipping Weight |
|-----------------------|---|--|------------------------|-----------------|
| APXVAALL12N_43-U-NA20 | ACU-A20-SR Field Replace RET included (2) | APM40-2 Beam tilt kit & APM40-E10 (included) | 60-120mm | 30 Kg (66 lb) |



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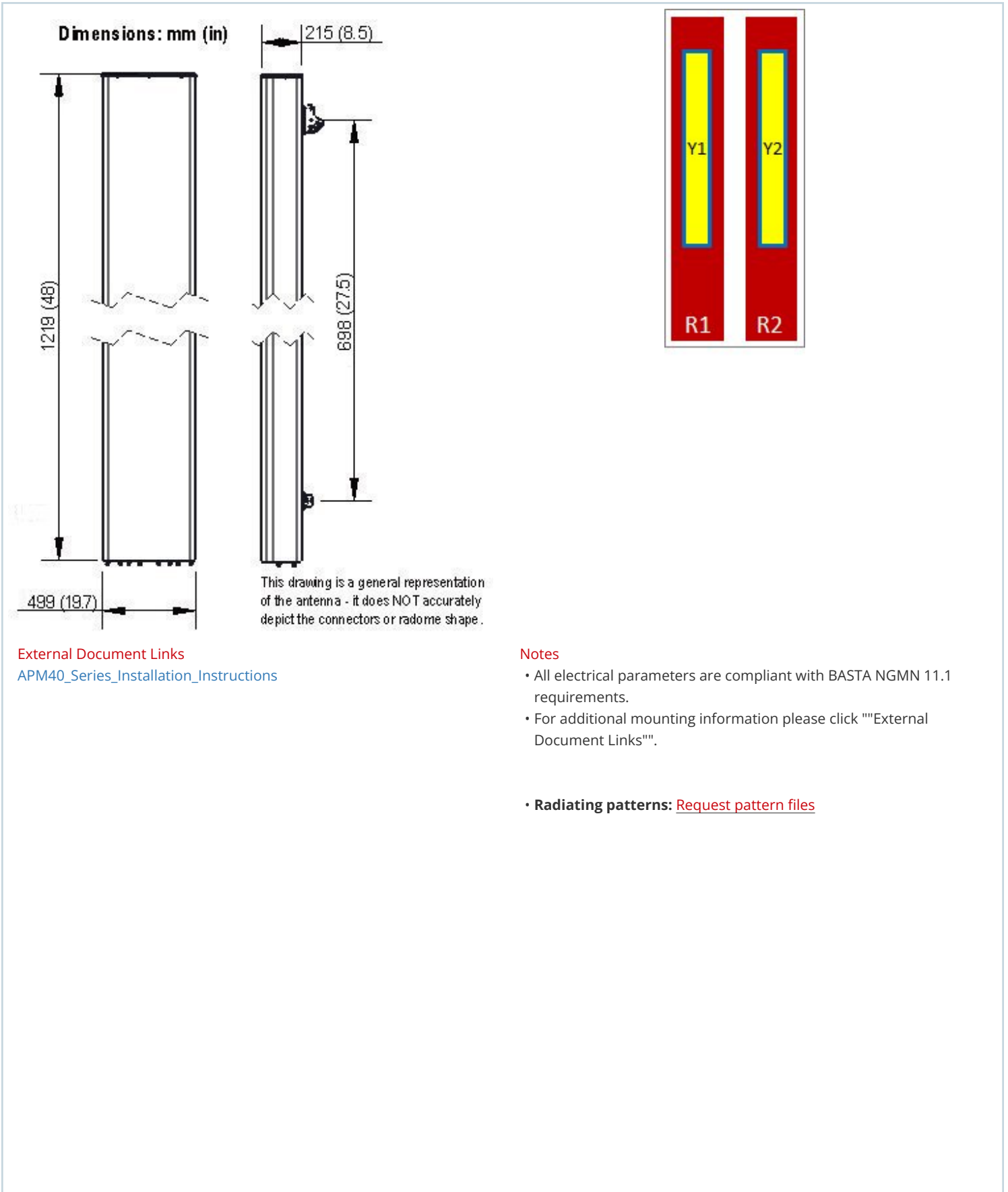


| | |
|---------------------------------|-----|
| Rated Wind Speed, Km/h | 150 |
| Windload Frontal, Resultant, N | 407 |
| Windload Lateral, Resultant, N | 382 |
| Windload Rear, Resultant, N | 473 |
| Windload Maximum, Resultant, N | 793 |
| Windload Maximum, Drag Force, N | 701 |



| Port | Array | Frequency | RET | AISG RET UID |
|------|-------|-----------|-----|------------------|
| 1 | R1 | 617-894 | R1 | RFxxxxxxxxxx-2R1 |
| 2 | | 617-894 | | |
| 3 | R2 | 617-894 | | |
| 4 | | 617-894 | | |
| 5 | Y1 | 1695-2690 | Y1 | RFxxxxxxxxxx-2Y1 |
| 6 | | 1695-2690 | | |
| 7 | Y2 | 1695-2690 | | |
| 8 | | 1695-2690 | | |

| RET Information | | |
|-------------------|---------------|---------------|
| Frequency | 617-894 | 1695-2690 |
| Model | ACU-A20-SR | ACU-A20-SR |
| Location | Semi-internal | Semi-Internal |
| Field Replaceable | Yes | Yes |
| Quantity | 1 | 1 |
| RET ID | R1 | Y1 |



External Document Links
[APM40_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](#)