



**APXVAA4L18\_43-U-NA20**

12-Ports, X-Pol, Panel Antenna, 1.8m, 2x 617-894/4x 1695-2690 MHz 65deg, Integrated RET

**FEATURES / BENEFITS**

- MIMO 4x4 in low-band and mid-band x2 (L/CL & CR/R)
- Integrated and fieldreplaceable RET
- ACU model number: x3 ACU-A20-SR, ACU HW 05
- Compliant with AISG V2.0 and 3GPP
- AISG jumper cable included
- Mechanical down tilt kit included
- Manual overdrive



**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  | 14.3                                    | 14.4        | 14.6        |
| Azimuth Beamwidth 3dB           | Deg  | 70 +/- 3                                | 68 +/- 5    | 65 +/-5     |
| Elevation Beamwidth 3dB         | Deg  | 15 +/- 1                                | 13 +/- 1.3  | 11 +/- .7   |
| Cross-Pol at Boresight          | dB   | 25                                      | 22          | 21          |
| F/B at 180 Copolar              | dB   | 25                                      | 29          | 28          |
| Electrical Downtilt             | Deg  | 2-12                                    | 2-12        | 2-12        |
| First Upper Side Lobe           | dB   | 17                                      | 18          | 20          |
| 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 | 400                                     | 400         | 400         |
| Gain Over All Tilts             | dBi  | 13.8 +/-0.5                             | 13.8 +/-0.6 | 14.0 +/-0.6 |
| Cross-Pol over Sector           | dB   | 9                                       | 5           | 4           |
| F/B at +/-30 Total Power        | dB   | 18                                      | 18          | 20          |
| Upper Side Lobe Peak to +20     | dB   | 20                                      | 19          | 20          |



**ELECTRICAL SPECIFICATIONS**

| Electrical Specification Header |      | High Band Arrays (1695-2690 MHz) Ports 5-12 |            |            |            |            |
|---------------------------------|------|---|------------|------------|------------|------------|
| Frequency Band                  | MHz  | 1695-1880                                   | 1850-1990  | 1920-2200  | 2200-2500  | 2500-2690  |
| Gain                            | dBi  | 17.5  | 18.0       | 18.9       | 18.7       | 18.5       |
| Azimuth Beamwidth 3dB           | Deg  | 67 +/- 5                                    | 65 +/- 7   | 62 +/- 9   | 58 +/- 7   | 57 +/- 7   |
| Elevation Beamwidth 3dB         | Deg  | 5.5 +/- .3                                  | 5.2 +/- .3 | 4.8 +/- .4 | 4.4 +/- .2 | 4.0 +/- .3 |
| Cross-Pol at Boresight          | dB   | 23  | 22         | 18         | 19         | 21         |
| F/B at 180 Copolar              | dB   | 31  | 30         | 30         | 30         | 29         |
| Electrical Downtilt             | Deg  | 2-12  | 2-12       | 2-12       | 2-12       | 2-12       |
| First Upper Side Lobe           | dB   | 15  | 17         | 17         | 17         | 17         |
| VSWR                            | -    | 1.5:1                                       | 1.5:1      | 1.5:1      | 1.5:1      | 1.5:1      |
| Return Loss                     | dB   | -14   | -14        | -14        | -14        | -14        |
| Cross Polar Isolation           | dB   | 25  | 25         | 25         | 25         | 25         |
| 3rd Order PIM 2 x 43dBm         | dBc  | -153  | -153       | -153       | -153       | -153       |
| Maximum CW Power per Port       | Watt | 250   | 250        | 250        | 250        | 250        |
| Gain Over All Tilts             | dBi  | 16.4+/-0.8                                  | 17.3+/-0.7 | 18.1+/-0.8 | 17.2+/-1.1 | 16.8+/-0.9 |
| Cross-Pol over Sector           | dB   | 6   | 5          | 4          | 1          | 2          |
| F/B at +/-30 total Power        | dB   | 26  | 29         | 28         | 24         | 23         |
| Upper Side Lobe Peak to +20     | dB   | 14  | 16         | 15         | 15         | 11         |

**ELECTRICAL SPECIFICATIONS**

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

**MECHANICAL SPECIFICATIONS**

|                                 |         |   |
|---------------------------------|---------|---|
| Dimensions - H x W x D          | mm (in) | 1829 x 609 x 215 (72 x 24 x 8.5)                                    |
| Weight (Antenna Only)           | kg (lb) | 48 (106)  |
| Weight (Mounting Hardware only) | kg (lb) | 11.5 (25.3)   |
| Packing size- HxWxD             | mm (in) | 1980 x 735 x 375 (78 x 28.9 x 14.8)                                 |
| Shipping Weight                 | kg (lb) | 69 (152)  |
| Connector type                  |         | 12 x 4.3-10 female at bottom + 6 AISG connectors (3 male, 3 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 Grounded             |
| Survival/Rated Wind Velocity | km/h    | 240 (150 )              |
| Wind Load @Rated Wind Front  | N       | 1072                    |
| Wind Load @Rated Wind Side   | N       | 326                     |
| Wind Load @Rated Wind Rear   | N       | 1160                    |

**ORDERING INFORMATION**

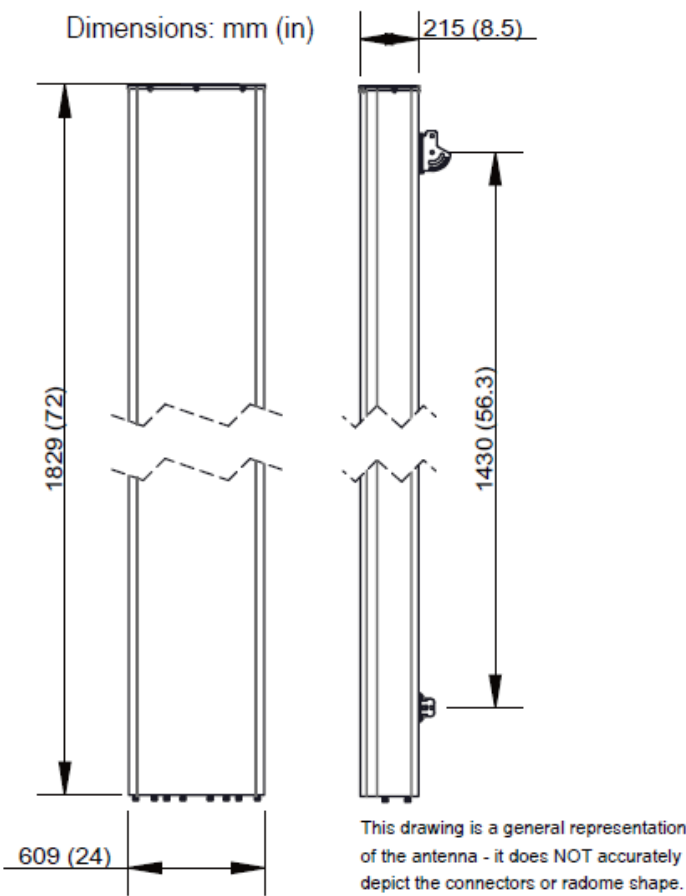
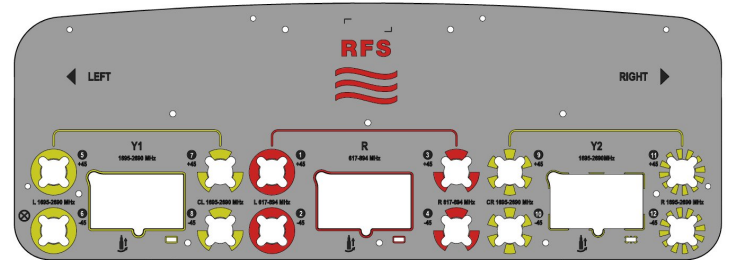
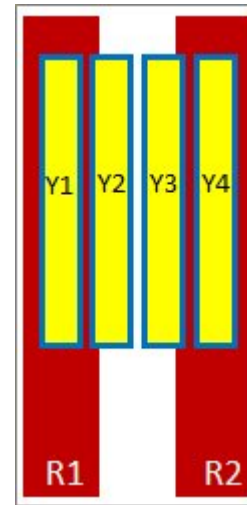
| Order No.            | Configuration                             | Mounting Hardware                 | Mounting pipe Diameter | Shipping Weight |
|----------------------|---|-----------------------------------|------------------------|-----------------|
| APXVAA4L18_43-U-NA20 | ACU-A20-SR Field Replace RET included (3) | APM40-5E Beam tilt kit (included) | 60-120mm               | 69 Kg           |



### APXVAA4L18\_43-U-NA20

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| Port | Array | Frequency | RET | AISG RET UID      |
|------|-------|-----------|-----|-------------------|
| 1    | R1    | 617-894   | R1  | RFxxxxxxxxxxx-2R1 |
| 2    |       | 617-894   |     |                   |
| 3    | R2    | 617-894   |     |                   |
| 4    |       | 617-894   |     |                   |
| 5    | Y1    | 1695-2690 | Y1  | RFxxxxxxxxxxx-2Y1 |
| 6    |       | 1695-2690 |     |                   |
| 7    | Y2    | 1695-2690 |     |                   |
| 8    |       | 1695-2690 |     |                   |
| 9    | Y3    | 1695-2690 | Y2  | RFxxxxxxxxxxx-2Y2 |
| 10   |       | 1695-2690 |     |                   |
| 11   | Y4    | 1695-2690 |     |                   |
| 12   |       | 1695-2690 |     |                   |



External Document Links

- [APM40\\_Series\\_Installation\\_Instructions](#)
- [CAxxx-7 Series](#)
- [Manual\\_Overdrive\\_Instructions](#)



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| 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             | 2             |
| RET ID            | R1            | Y1 & Y2       |

**Notes**

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- A one-meter AISG cable CA010-7 comes in the box, and for additional cable information please click ""External Document Links"".
- For additional mounting information please click ""External Document Links"".
- **Radiating patterns:** [Request pattern files](#)