



This X-Polarized variable tilt antenna provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features a wide downtilt range. The antenna comes pre-connected with one antenna control unit (ACU).

**FEATURES / BENEFITS**

- Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is infield adjustable 0-10 deg.
- High Suppression of all Upper Sidelobes (Typically <-18dB)
- Low profile for low visual impact
- Dual polarization
- Broadband design
- Includes AISG 2.0 Compatible ACU-A20-N or ACU-A20-S antenna control unit



**Technical features**

**ELECTRICAL SPECIFICATIONS**

|                                       |           |  |             |
|---------------------------------------|-----------|--|-------------|
| <b>Frequency Range</b>                | MHz       | 1710-1900  | 1900-2170   |
| <b>Gain</b>                           | dBi (dBd) | 17.9 (15.8)  | 17.7 (15.7) |
| <b>Horizontal Beamwidth</b>           | deg       | 88   |             |
| <b>Vertical Beamwidth</b>             | deg       | 5.1  | 4.5         |
| <b>Electrical Downtilt Range</b>      | deg       | 0-10   |             |
| <b>1st Upper Sidelobe Suppression</b> | dB        | >18 all (Typically > 20)   |             |
| <b>Upper Sidelobe Suppression</b>     | dB        | >18 all (Typically > 20)   |             |
| <b>Front-To-Back Ratio</b>            | dB        | > 28   |             |
| <b>Polarization</b>                   |           | Dual pol +/-45°  |             |
| <b>VSWR</b>                           |           | < 1.5:1  |             |
| <b>Isolation between Ports</b>        | dB        | > 30   |             |
| <b>3rd Order IMP @ 2 x 43 dBm</b>     | dBc       | ≥153   |             |
| <b>7th Order IMP @ 2x46 dBm</b>       | dBc       | N/A, >170  |             |
| <b>Impedance</b>                      | Ohms      | 50   |             |
| <b>Maximum Power Input</b>            | W         | 300  |             |
| <b>Beamwidth Approximate</b>          | deg       | 90   |             |
| <b>Frequency/Operating Band</b>       |           | 3G/UMTS (Single, Broad, Dual and Triple-Band)<br>AWS Band (1710-1755, 2110-2155 MHz) |             |
| <b>Antenna Type</b>                   |           | Dual Polarized   |             |
| <b>Electrical Down Tilt Option</b>    |           | Variable   |             |



**MECHANICAL SPECIFICATIONS**

|                               |            |                                      |
|-------------------------------|------------|--------------------------------------|
| Lightning Protection          |            | Direct Ground                        |
| Connector Type/Location       |            | (2) 7-16 Long Neck Female/Bottom     |
| Dimensions - HxWxD            | mm (in)    | 1850 x 169 x 80 (72.0 x 6.65 x 3.15) |
| Weight w/o Mtg Hardware       | kg (lb)    | 11.5 (25.3)                          |
| Weight w/ Mtg Hardware        | kg (lb)    | 14.3 (31.5)                          |
| Survival/Rated Wind Speed     | km/h (mph) | 200 (125) / 160 (100)                |
| Applied Wind Load Standard    |            | DIN 1055-4                           |
| Wind Load @ Rated Wind, Front | N (lbf)    | 557 (125)                            |
| Wind Load @ Rated Wind, Max.  | N (lbf)    | 557 (125)                            |
| Wind Load @ Rated Wind, Side  | N (lbf)    | 325 (73)                             |
| Wind Load @ Rated Wind, Rear  | N (lbf)    | 269 (60)                             |
| Mount Type                    |            | Downtilt                             |
| Height (Approximate)          | ft.        | 6                                    |

**TESTING AND ENVIRONMENTAL**

|                       |         |                         |
|-----------------------|---------|-------------------------|
| Operation temperature | °C (°F) | -40 to 60 (-40 to 140 ) |
|-----------------------|---------|-------------------------|

**MATERIAL**

|                            |  |                               |
|----------------------------|--|-------------------------------|
| Radome Material/Color      |  | Fiberglass/Light Grey RAL7035 |
| Mounting Hardware Material |  | APM40-2                       |
| Radiating Element Material |  | Brass                         |
| Reflector Material         |  | Aluminum                      |

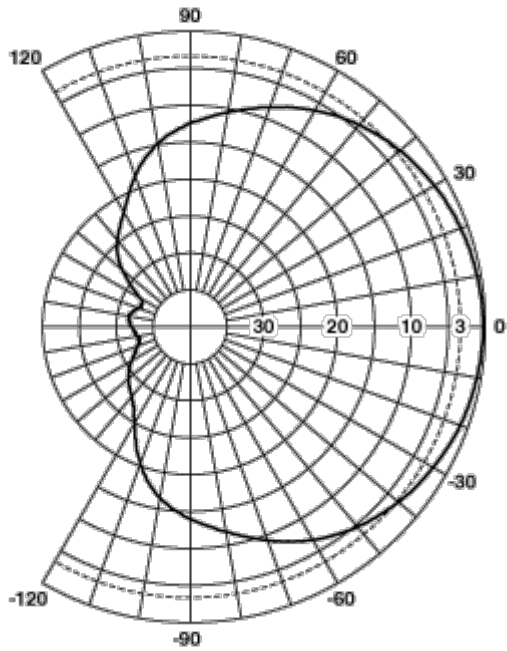
**ORDERING INFORMATION**

|                           |         |                                      |
|---------------------------|---------|--------------------------------------|
| Shipping Weight           | kg (lb) | 17.5 (38.5)                          |
| Packing Dimensions, HxWxD | mm (in) | 2020 x 260 x 200 (79.5 x 10.2 x 7.8) |
| Mounting Hardware         |         | APM40-2                              |
| Mounting Pipe Diameter    | mm (in) | 60 - 120 (2.36 - 4.72 )              |
| Mounting Hardware Weight  | kg (lb) | 3.4 (7.5)                            |

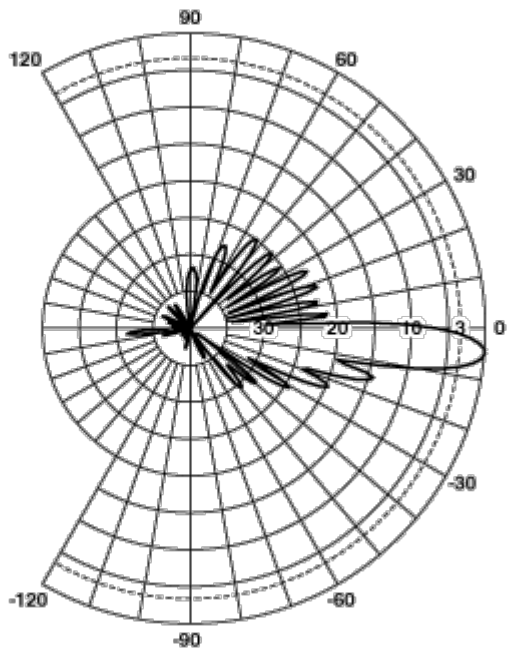


**APXV18-209015-C-A20**

Optimizer® Dual Polarized Antenna, 1710-2170, 88deg, 17.9/17.7dBi, 1.8m, VET, 0-10deg RET



Horizontal Pattern

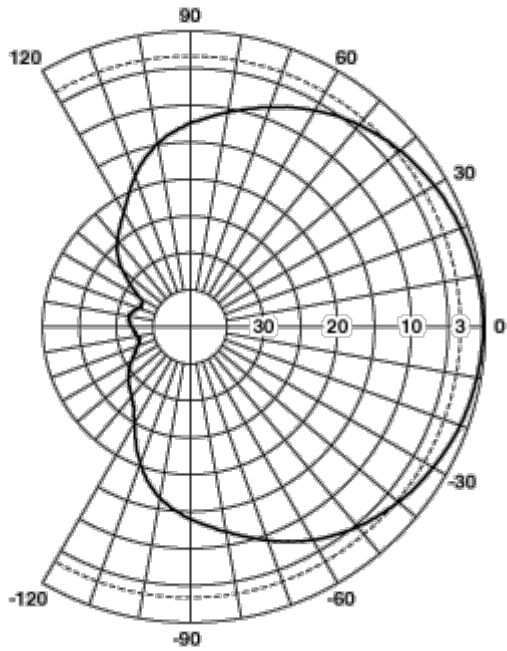


Vertical Pattern



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Horizontal Pattern

**External Document Links**

[APM40 Series Datasheet](#)

[APM40 Series Installation Instructions](#)

**Notes**

For additional mounting information please click "External Document Link" below.