Product Data Sheet **APXVFRR12X-C-I20**

RF X-TREME™ Cross Polarized Triple Band Antenna, 698-2170MHz, 65deg, 13.3/16.0/16.3dBi, 1.2m, VET, 0-8deg, RET

Product Description

The new RF X-TREME base station antenna design provides the highest gain and cross polar discrimination combined with the best vertical pattern control of any triple band antenna of its size in the industry. It is an ideal choice for site upgrades and new deployments where three frequency bands, or MIMO/4 RX diversity, is used to add capacity and increase coverage. Only 12 inches wide and 1.2 meters high, it maintains the size of a dual band antenna, while adding a third antenna path with no compromise in RF performance. Reflecting RFS' on-going commitment for 4G technologies, it can be used for multiple bands such as LTE700, CDMA850, PCS1900 and AWS2100. This multi-band antenna features superior pattern symmetry and a phase shifter for each radiating dipole providing exceptional patterns at all tilt settings. It is also available with an optional, integrated and field replaceable AISG 2.0 antenna control unit (ACU) for remote electrical tilt (RET) compatibility.



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Features/Benefits

- **Cross polarization – triple band version with 6 ports (2x 698-894 MHz and 4x 1710-2170 MHz)**
- **One phase shifter per radiating element – improves radiating patterns**
- **Superior X-Pol Discrimination – improves Rx diversity**
- **Integrated Remote Electrical Tilt (RET) – reduces installation time and increases reliability**
- **High suppression of upper sidelobes – reduces cell interference**
- **Enhanced tilt range from 0 to 8 degrees – ideal for applications in dense areas**
- **Variable electrical downtilt – provides enhanced precision in controlling intercell interference**
- **High reliability – designed to last in a tower top environment**
- **Design incorporates low windload and low weight – minimizes tower loading**
- **Quick and easy to install – reduces installation time and costs**

Technical Specifications

Electrical Specifications

Frequency Range, MHz	698-806	806-894	1710-1880	1850-1990	1920-2170
Horizontal Beamwidth, deg	72	72	65	65	65
Vertical Beamwidth, deg	20	17.5	8.7	8.5	8.0
Electrical Downtilt Range, deg	0-8	0-8	0-10	0-10	0-10
Gain, dBi (dBd)	13 (10.9)	13.3 (11.2)	15.6 (13.5)	16 (13.9)	16.3 (14.2)
1st Upper Sidelobe Suppression, dB			18		
Front-To-Back Ratio, dB			27		
Polarization			Dual pol +/-45°		
VSWR			< 1.5:1		
Isolation between Ports, dB			>30 typ.		
3rd Order IMP @ 2 x 43 dBm, dBc			>153		
Impedance, Ohms			50		
Maximum Power Input, W			300		
Lightning Protection			Direct Ground		
Connector Type/Location			(6) 7-16 Long Neck Female/Bottom		

Mechanical Specifications

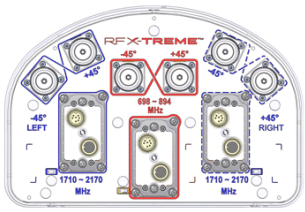
Dimensions - HxWxD, mm (in)	1220 x 299 x 200 (48 x 11.8 x 7.9)
Weight w/o Mtg Hardware, kg (lb)	20.9 (46)
Survival/Rated Wind Speed, km/h (mph)	240 (150) / 150 (93.2)
Applied Wind Load Standard	DIN 1055-4
Wind Load @ Rated Wind, Front, N (lbf)	275 (62)
Wind Load @ Rated Wind, Max., N (lbf)	340 (77)
Wind Load @ Rated Wind, Side, N (lbf)	340 (77)
Wind Load @ Rated Wind, Rear, N (lbf)	312 (71)
Operation temperature, °C (°F)	-40 to +60 (-40 to +140)
Radome Material/Color	ASA/Light Grey RAL7035
Mounting Hardware Material	Diecasted Aluminum and Galvanized Steel

Ordering Information

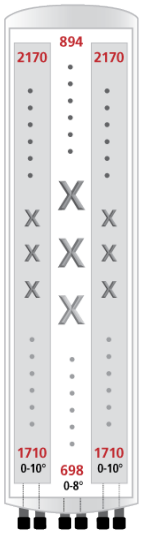
Mounting Hardware	APM40-2
Mounting Pipe Diameter, mm (in)	60-120 (2.36-4.72)
Mounting Hardware Weight, kg (lb)	3.4 (7.5)

All information contained in the present datasheet is subject to confirmation at time of ordering

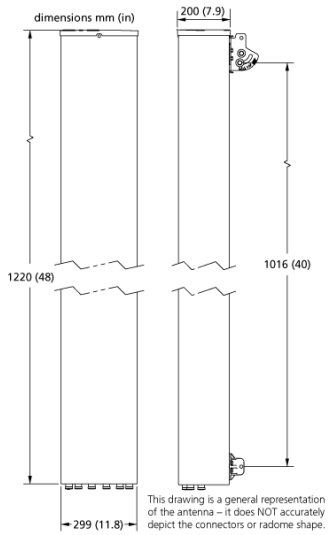
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Antenna End Plate



Antenna Array



Antenna Drawing

Notes

•For additional mounting information please click "External Document Links" below.

External Document Links

APM40 Series Datasheet
APM40 Series Installation Instructions

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