



**APXVLL13N\_43-C-A20**

RF WindMaster™ Panel Dual-Polarized 4-Port Antenna, 1695-2690/1695-2690 MHz, 65deg, 18.4/18.2 dBi, 1.3m, 0-12/0-12deg, External RET

A combination of two X-Polarized antennas in a single radome, the RFS Quad-Pol antennas are designed for applications requiring a minimum number of antennas at a cell site and reduced tower loading. They offer the rugged construction of our new series of high band antennas that feature both high RF performance and energy efficiency. They are ideal for 1800 & 2100 networks where high gain is required. These antennas are especially well suited for MIMO applications.

**FEATURES / BENEFITS**

- Ultra-broadband design
- Best-in-the-industry gain values
- Two x-polarized broadband panels in a single narrow radome - reduced tower loading & lower profile
- Variable electrical downtilt - provides enhanced precision in controlling intercell interference
- High suppression of all upper sidelobes
- High front-to-back ratio
  
- Two pre-commissioned ACU-A20-S RET motors



**Technical features**

**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		High Band Left Array (1695-2690 MHz) [Y1]				
Frequency Band	MHz	1695-1880	1850-1990	1920-2200	2300-2500	2500-2690
Gain Typical	dBi	17.4	17.7	18.1	17.9	18.4
Gain Over All Tilts	dBi	17+/-0.4	17.4+/-0.3	17.7+/-0.4	17.5+/-0.4	17.9+/-0.5
Horizontal Beamwidth @3dB	Deg	65.6+/-3.7	64.4+/-4.2	65.1+/-4.5	62.8+/-4.3	62.7+/-3.3
Vertical Beamwidth @3dB	Deg	8.1+/-0.5	7.5+/-0.3	6.8+/-0.4	6.1+/-0.4	5.5+/-0.3
Front-to-Back, at +/-30°, Total Power	dB	> 24.6	> 25.4	> 26.9	> 26.1	> 27.9
First Upper Side Lobe Suppression	dB	> 19.3	> 21.6	> 22.3	> 20.2	> 18.0
Electrical Downtilt Range	Deg	0 to 12				
3rd Order PIM 2 x 43dBm	dBc	< -153				
VSWR	-	< 1.5:1				
Cross Polar Isolation	dB	> 30				
Maximum Effective Power per Port	Watt	300				



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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		High Band Right Array (1695-2690 MHz) [Y2]				
Frequency Band	MHz	1695-1880	1850-1990	1920-2200	2300-2500	2500-2690
Gain Typical	dBi	17.4	17.7	18.0	17.8	18.2
Gain Over All Tilts	dBi	16.9+/-0.5	17.3+/-0.4	17.6+/-0.4	17.4+/-0.4	17.7+/-0.5
Horizontal Beamwidth @3dB	Deg	65.7+/-3.5	64.4+/-3.7	65.5+/-4.3	63.1+/-4.5	63+/-2.4
Vertical Beamwidth @3dB	Deg	8.1+/-0.5	7.5+/-0.3	6.9+/-0.4	6.3+/-0.6	5.7+/-0.3
Front-to-Back, at +/-30°, Total Power	dB	> 25.2	> 25.3	> 26.6	> 26.2	> 26.6
First Upper Side Lobe Suppression	dB	> 17.9	> 20.1	> 20.5	> 18.8	> 17.3
Electrical Downtilt Range	Deg	0 to 12				
3rd Order PIM 2 x 43dBm	dBc	< -153				
VSWR	-	< 1.5:1				
Cross Polar Isolation	dB	> 30				
Maximum Effective Power per Port	Watt	300				

**ELECTRICAL SPECIFICATIONS**

Impedance	Ohm	50
Polarization	Deg	&pm;45°

**MECHANICAL SPECIFICATIONS**

Dimensions - H x W x D	mm (in)	1390 x 288 x 118 (54.7 x 11.3 x 4.6)
Weight (Antenna Only)	kg (lb)	13.4 (29.5)
Weight (Mounting Hardware only)	kg (lb)	3.4 (7.5)
Packing size- HxWxD	mm (in)	1585 x 380 x 260 (62.4 x 15 x 10.2)
Shipping Weight	kg (lb)	21.2 (46.7)
Connector type		4 x 4.3-10 female at bottom
Adjustment mechanism		x2 ACU-A20-S RET Motors
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 (160 )
Wind Load @Rated Wind Front	N	456
Wind Load @Rated Wind Side	N	187
Wind Load @Rated Wind Rear	N	492

**ORDERING INFORMATION**

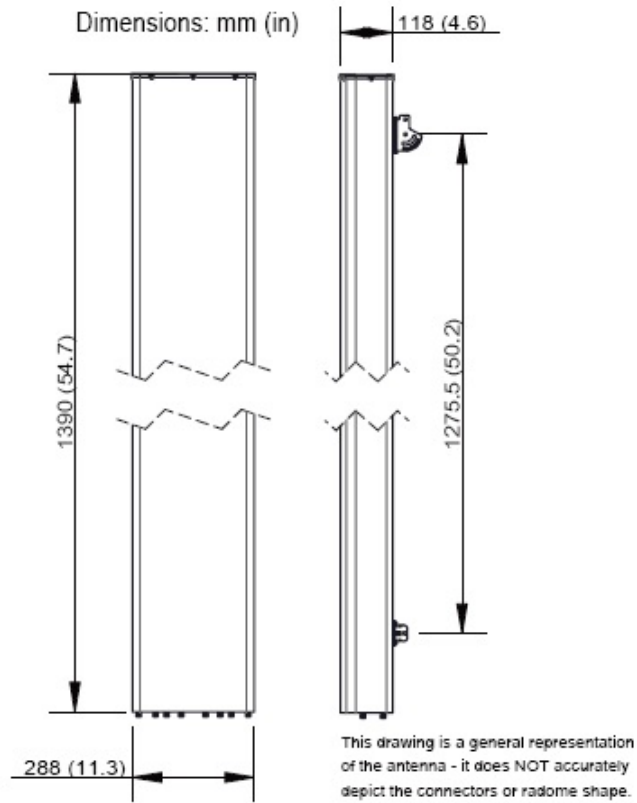
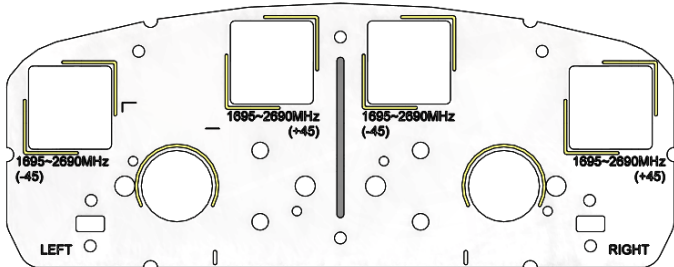
Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXVLL13N_43-C-A20	x2 ACU-A20-S External RET included	APM40-2	50-120mm	21.2 Kg



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Port	RET	Frequency	Description
1	Y1	1695-2690	Left +45
2	Y1	1695-2690	Left -45
3	Y2	1695-2690	Right +45
4	Y2	1695-2690	Right -45



External Document Links



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[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](#)