

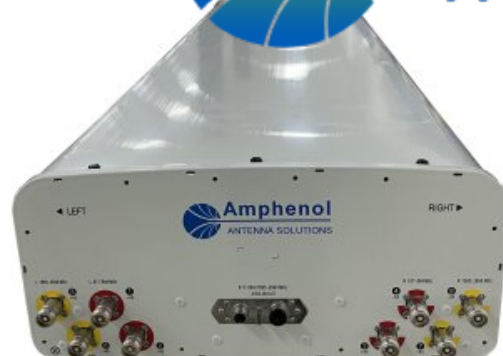
APXVAALL24M-U-J20

8-Ports, X-Pol, Panel Antenna, 2.4m, 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: ACU-X20-N2
- Ships in VSRET mode
- Compliant with AISG V2.0 and 3GPP
- 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	15.9	16.4	16.4
Azimuth Beamwidth 3dB	Deg	69 +/-8	60 +/-7	55 +/-6
Elevation Beamwidth 3dB	Deg	9.8 +/--.6	9.1 +/--.6	7.9 +/--.5
Cross-Pol at Boresight	dB	17	20	19
F/B at 180 Copolar	dB	28	27	31
Electrical Downtilt	Deg	2 to 12	2 to 12	2 to 12
First Upper Side Lobe	dB	17	19	18
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 46dBm	dBc	-153	-153	-153
Maximum CW Power per Port	Watt	300	300	300
Gain Over All Tilts	dBi	15.4 +/- .5	16.0 +/- .4	15.9 +/- .5
Cross-Pol over Sector	dB	10	8	6
F/B at +/-30 Total Power	dB	20	22	24
Upper Side Lobe Peak to +20	dB	17	16	15

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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Mid Band Arrays (1695-2690 MHz) Ports 5-8			
Frequency Band	MHz	1695-1880	1850-1990	1995-2200	2200-2690
Gain	dBi	18.5	18.6	19.5	19
Azimuth Beamwidth 3dB	Deg	61 +/- 5	60 +/- 4	59 +/- 4	56 +/- 6
Elevation Beamwidth 3dB	Deg	5.7 +/- 0.3	5.3 +/- 0.3	4.8 +/- 0.5	4.2 +/- 0.4
Cross-Pol at Boresight	dB	20	22	15	17
F/B at 180 Copolar	dB	31	31	31	30
Electrical Downtilt	Deg	2 to 12	2 to 12	2 to 12	2 to 12
First Upper Side Lobe	dB	19	17	18	20
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 46dBm	dBc	-153	-153	-153	-153
Maximum CW Power per Port	Watt	250	250	250	250
Gain Over All Tilts	dBi	17.8 +/- 0.7	18.2 +/- 0.4	18.8 +/- 0.7	18.5 +/- 0.5
Cross-Pol over Sector	dB	11	10	7	2
F/B at +/-30 Total Power	dB	25	24	25	24
Upper Side Lobe Peak to +20	dB	16	16	14	14

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	+/- 45

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	2432 x 499 x 215 (95.7 x 19.7 x 8.5)
Weight (Antenna Only)	kg (lb)	39 (86)
Weight (Mounting Hardware only)	kg (lb)	8.8 (19.4)
Packing size- HxWxD	mm (in)	2642 x 560 x 285 (104 x 22 x 11.2)
Shipping Weight	kg (lb)	56 (123)
Connector type		8 x 4.3-10 female at bottom
Radome Material / Color		ASA / Light Grey RAL7035

TESTING AND ENVIRONMENTAL

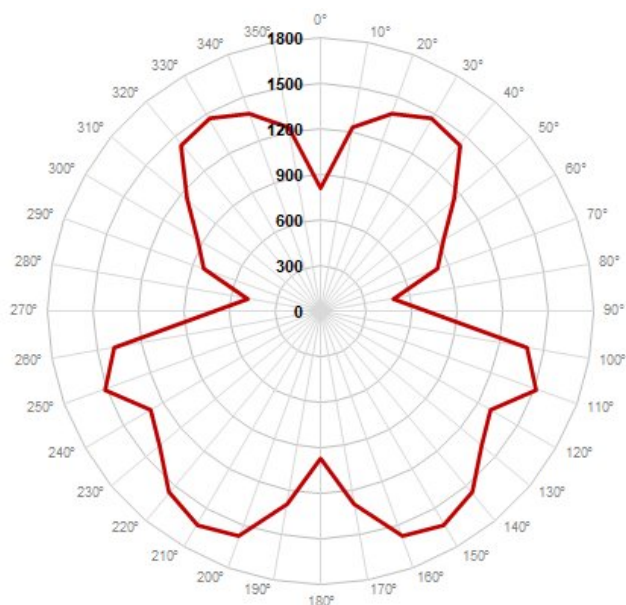
Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		Direct Ground
Survival/Rated Wind Velocity	km/h	240 (150)
Wind Load @Rated Wind Front	N	816
Wind Load @Rated Wind Side	N	701
Wind Load @Rated Wind Rear	N	969

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**ORDERING INFORMATION**

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXVAALL24M-U-J20	ACU-X20-N2 Field Replace RET included	APM40-5E Beam tilt kit & APM40-E10T (included)	60-120mm	56 kg (123 lb)



Rated Wind Speed, Km/h	150
Windload Frontal, Resultant, N	816
Windload Lateral, Resultant, N	701
Windload Rear, Resultant, N	969
Windload Maximum, Resultant, N	1627
Windload Maximum, Drag Force, N	1439

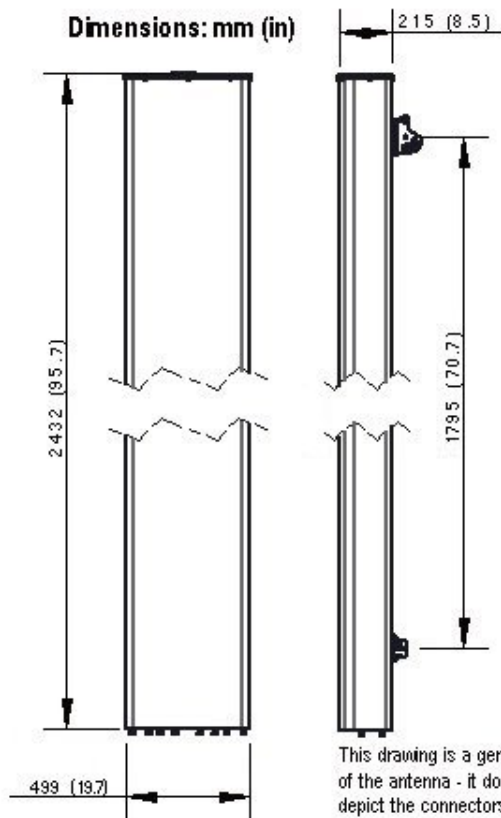


Port	Array	Frequency	RET	AISG RET UID
1	R1	617-894	R1	RFxxxxxxxxxx-2R1
2		617-894		
3	R2	617-894	R1	RFxxxxxxxxxx-2R1
4		617-894		
5	Y1	1695-2690	Y1	RFxxxxxxxxxx-2Y1
6	Y2	1695-2690		
7		1695-2690		
8		1695-2690		

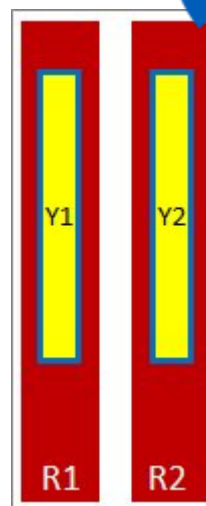
RET Information		
Frequency	617-894	1695-2690
Model	ACU-X20-N2	
Location	Semi-internal	
Field Replaceable	Yes	
Quantity	1	
RET ID	R1	Y1

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This drawing is a general representation of the antenna - it does **NOT** accurately depict the connectors or radome shape.



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](#)