



APXVB3L20B_43-C-I20

Quadband X-pol Antenna, 698-960/1710-2690/1710-2690/1710-2690MHz, 65deg, 16.3/16.9/16.3/16.9dBi, 2.0m, 2-12/2-11deg, Integrated RET

FEATURES / BENEFITS

- 2 ports / 1 cross pol system in low band (698-960MHz)
- 6 ports / 3 cross pol systems in high band (1710-2690MHz)
- Integrated and field replaceable SRET
- ACU HW Version -2.02 / SW Version -2.72
- Compliant with AISG V2.0 and 3GPP



Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		LOW BAND ARRAY (698-960 MHz) [R1]		
Frequency Band	MHz	698 - 806	790 - 894	880 - 960
Gain Typical	dBi	15.4	16.0	16.3
Gain Over all Tilts	dBi	14.9 +/- 0.5	15.5 +/- 0.5	15.8 +/- 0.5
Azimuth Beamwidth 3dB	Deg	68.0+/-1.6	65.9+/-2	65.3+/-1.5
Elevation Beamwidth 3dB	Deg	11.8 +/- 1	10.3 +/- 0.5	9.4 +/- 0.5
Cross Polar Discrimination at Boresight	dB	26	25	24
Cross Polar Discrimination over Sector	dB	11.5	8	9
F/B at +/-30deg Total Power	dB	24.4	25	25
First Upper Side Lobe Suppression	dB	15	15	16
Electrical Downtilt	Deg	2 to 12		
Cross Polar Isolation	dB	26		
Interband Isolation	dB	26		
VSWR	-	1.5		
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153		
Maximum Effective Power per Port	Watt	350		



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		HIGH BAND ARRAY (1710-2690 MHZ) [Y1]				
Frequency Band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	16.0	16.2	16.9	15.9	16.1
Gain Over all Tilts	dBi	15 +/- 1	15.7 +/- 0.5	16.4 +/- 0.5	15.4 +/- 0.5	15.6 +/- 0.5
Azimuth Beamwidth 3dB	Deg	62.7 +/- 4.5	65.1 +/- 4	64.7 +/- 6.4	68.2 +/- 5	61 +/- 3.1
Elevation Beamwidth 3dB	Deg	9.9 +/- 1	9.2 +/- 0.5	8.5 +/- 0.5	7.8 +/- 0.6	7.3 +/- 0.5
Cross Polar Discrimination at Boresight	dB	19.8	23	15	11.8	12.9
Cross Polar Discrimination over Sector	dB	10	9.8	6	7.6	5
F/B at +/-30deg Total Power	dB	19.7	22	21	19	19.6
First Upper Side Lobe Suppression	dB	13.1	13	12	11.4	13.9
Electrical Downtilt	Deg	2 to 11				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	26				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	250				

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		HIGH BAND ARRAY (1710-2690 MHZ) [Y2]				
Frequency Band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	15.1	15.1	16.3	15.1	16.3
Gain Over all Tilts	dBi	14.6 +/- 0.5	15 +/- 0.1	15.7 +/- 0.6	14.5 +/- 0.6	15.3 +/- 1
Azimuth Beamwidth 3dB	Deg	61.7 +/- 8.4	66.9 +/- 4.5	65.7 +/- 6.9	69.9 +/- 4.6	62.2 +/- 2.6
Elevation Beamwidth 3dB	Deg	10.1 +/- 1	9.3 +/- 0.5	8.5 +/- 0.5	8 +/- 0.5	7.4 +/- 0.5
Cross Polar Discrimination at Boresight	dB	21	21	20	13	14.7
Cross Polar Discrimination over Sector	dB	8.9	9	6.5	7	5
F/B at +/-30deg Total Power	dB	19.3	21	21	16.9	18.7
First Upper Side Lobe Suppression	dB	13.6	12.1	12.9	11.7	14.0
Electrical Downtilt	Deg	2 to 11				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	26				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	250				

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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		HIGH BAND ARRAY (1710-2690 MHZ) [Y3]				
Frequency Band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	15.9	16.2	16.9	15.8	15.9
Gain Over all Tilts	dBi	14.9 +/- 1	15.7 +/- 0.5	16.4 +/- 0.5	15.3 +/- 0.5	15.4 +/- 0.5
Azimuth Beamwidth 3dB	Deg	61.7 +/- 3.5	63.2 +/- 3.2	64.1 +/- 7.5	67.6 +/- 4.4	61 +/- 2.8
Elevation Beamwidth 3dB	Deg	10 +/- 1	9.3 +/- 0.5	8.5 +/- 0.5	8 +/- 0.9	7.2 +/- 0.5
Cross Polar Discrimination at Boresight	dB	19.9	21	15	10	13
Cross Polar Discrimination over Sector	dB	10	9.8	7	7	5.5
F/B at +/-30deg Total Power	dB	19.8	22	22	18	18.1
First Upper Side Lobe Suppression	dB	11.8	11.8	11.8	10.2	12
Electrical Downtilt	Deg	2 to 11				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	26				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	250				

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	1960 x 350 x 200 (77.2 x 13.8 x 7.9)
Weight (Antenna Only)	kg (lb)	22.5 (49.6)
Weight (Mounting Hardware only)	kg (lb)	6 (13.2)
Packing size- HxWxD	mm (in)	2240 x 425 x 275 (88.2 x 16.7 x 10.8)
Shipping Weight	kg (lb)	35.5 (78.3)
Connector type		8 x 4.3-10 female/bottom + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		Fiberglass / Light Gray

TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		DC Ground
Survival/Rated Wind Velocity	km/h	220 (160)
Wind Load @Rated Wind Front	N	842
Wind Load @Rated Wind Side	N	481
Wind Load @Rated Wind Rear	N	1025

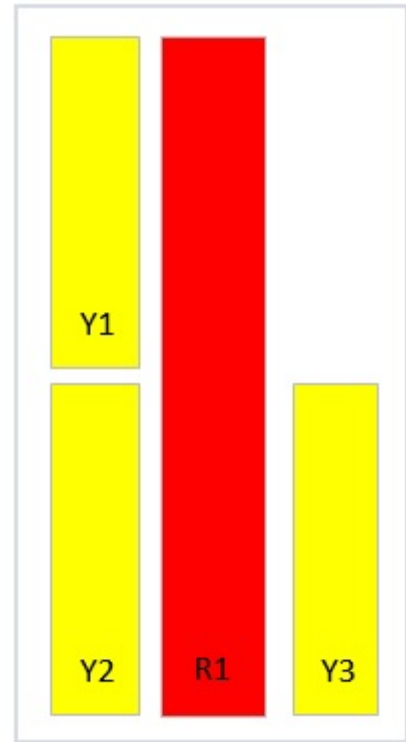
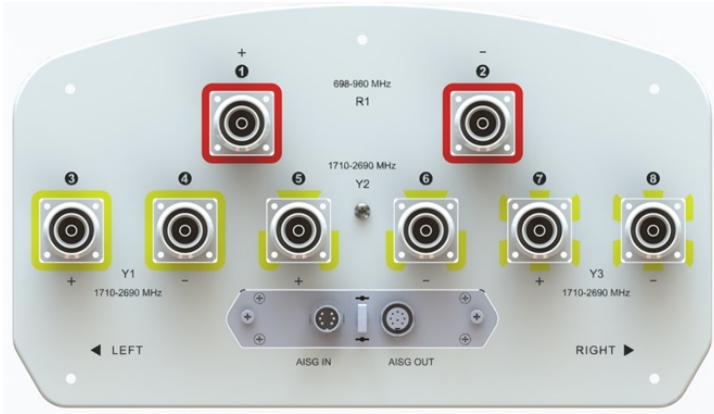
ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXVB3L20B_43-C-I20	Internal RET (ACU-I20-B4)	APM50-B1	50-110 mm	35.5 Kg

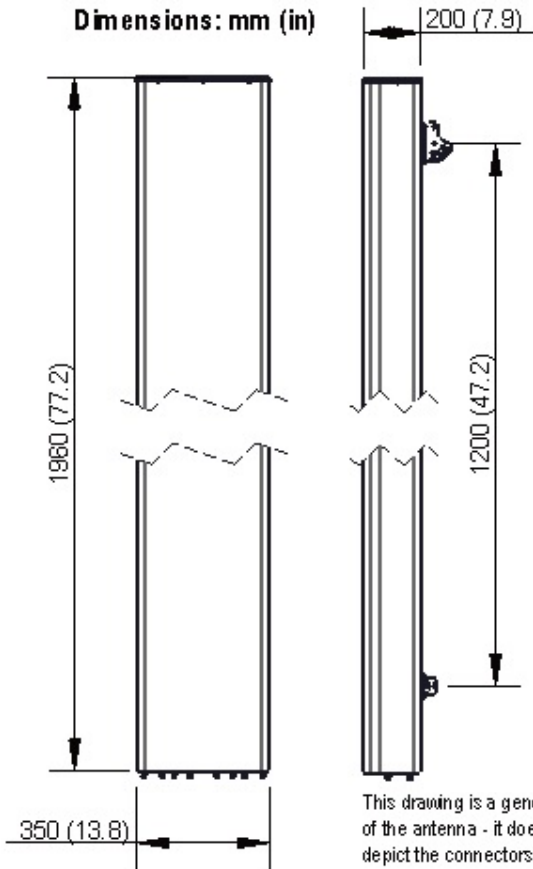


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Dimensions: mm (in)



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



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External Document Links

[APM50_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](#)