PRODUCT DATASHEET

APXVBB34L20AB_43-C-I20

12-Ports, X-Pol, Hybrid Beam Antenna, 2.0m, 2x 698-960MHz, 65deg, 4x 1710-2690MHz, 33deg, Integrated RET, Site Sharing Optional

FEATURES / BENEFITS

- Hybrid twin beam antenna
- 4 ports / 2 cross pol systems in low band (698-960MHz), 65deg
- 4 ports + 4 ports, each 33deg. beam based on 2 cross pol systems (1710-2690 MHz), separated by 60deg
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG V2.0 and 3GPP

Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		LOW BAND ARRAY (698-960 MHZ) [R1/R2]		
Frequency Band	MHz	698-806	790-894	880-960
Gain Typical	dBi	16.3	16.3	16.8
Gain Over all Tilts	dBi	15.3 +/- 1.0	15.7 +/- 0.6	16.2 +/- 0.6
Azimuth Beamwidth 3dB	Deg	66.8 +/- 6.5	62.8 +/- 6.8	55.1 +/- 6.7
Elevation Beamwidth 3dB	Deg	11.0 +/- 1.2	9.8 +/- 0.8	8.9 +/- 0.5
Cross Polar Discrimination at Boresight	dB	19.8	18.2	20.2
Cross Polar Discrimination over Sector	dB	9.9	9.7	7.9
F/B at +/-30deg Total Power	dB	21.0	22.8	20.8
First Upper Side Lobe Suppression	dB	16.0	16.7	16.7
Electrical Downtilt	Deg	2 to 12		
Cross Polar Isolation	dB	25		
Interband Isolation	dB	25		
VSWR	-	1.5		
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-150		
Maximum Effective Power per Port	Watt	350		

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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		HIGH BAND ARRAY (1710-2690 MHZ) [Y1/Y3]				
Frequency Band	MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain Typical	dBi	18.6	19.2	19.4	17.8	18.7
Gain Over all Tilts	dBi	18.0 +/- 0.6	18.7 +/- 0.5	18.8 +/- 0.6	17.0 +/- 0.8	18.1 +/- 0.6
Azimuth Beamwidth 3dB	Deg	34.8 +/- 4.2	30.2 +/- 1.5	29.1 +/- 1.6	27.7 +/- 3.9	24.2 +/- 1.8
Elevation Beamwidth 3dB	Deg	9.9 +/- 0.5	9.2 +/- 0.3	8.9 +/- 0.6	7.7 +/- 0.9	7.6 +/- 0.6
Beam Center	Deg	+/-30	+/-28	+/-25	+/-24	+/-23
F/B at +/-30deg Total Power	dB	23.0	25.7	24.8	19.7	20.4
First Upper Side Lobe Suppression	dB	19.1	21.4	22.4	22.3	18.5
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	25				
Interband Isolation	dB	25				
Beam Isolation	dB	14				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-150				
Maximum Effective Power per Port	Watt	250				

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		HIGH BAND ARRAY (1710-2690 MHZ) [Y2/Y4]				
Frequency Band	MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Gain Typical	dBi	18.0	18.9	19.1	17.6	18.5
Gain Over all Tilts	dBi	17.3 +/- 0.7	18.3 +/- 0.6	18.5 +/- 0.6	16.9 +/- 0.7	17.8 +/- 0.7
Azimuth Beamwidth 3dB	Deg	35.1 +/- 3.9	30.6 +/- 1.8	29.4 +/- 1.9	27.1 +/- 3.5	24.5 +/- 1.9
Elevation Beamwidth 3dB	Deg	10.0 +/- 0.5	9.4 +/- 0.5	9.1 +/- 0.5	7.9 +/- 1.3	7.6 +/- 0.5
Beam Center	Deg	+/-30	+/-28	+/-25	+/-24	+/-23
F/B at +/-30deg Total Power	dB	23.3	25.6	26.0	21.8	20.4
First Upper Side Lobe Suppression	dB	16.8	18.3	18.9	21.4	20.0
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	25				
Interband Isolation	dB	25				
Beam Isolation	dB	14				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-150				
Maximum Effective Power per Port	Watt	250				

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ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	2090 x 499 x 199 (82.3 x 19.6 x 7.8)
Weight (Antenna Only)	kg (lb)	36.2 (79.8)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	2375 x 570 x 275 (93.5 x 22.4 x 10.8)
Shipping Weight	kg (lb)	48 (105.8)
Connector type		12 x 4.3-10 female/bottom + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		Fiberglass / Light Grey RAL7035

TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		Direct grounded
Survival/Rated Wind Velocity	km/h	200 (150)
Wind Load @Rated Wind Front	N	692
Wind Load @Rated Wind Side	N	597
Wind Load @Rated Wind Rear	N	802

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVBB34L20AB_43-C-I20	Internal RET(ACU-I20-B6)	APM50-B1	50-110mm	48.0 kg
APXVBB34L20AB_43-C-I20S (Material Code: 50016713)	Internal RET(ACU-X20-B6) Dynamic Site Sharing mode	APM50-B1	50-110mm	48.0 kg
APXVBB34L20AB_43-C-I20S (Material Code: 50016715)	Internal RET(ACU-X20-B6) Dynamic Site Sharing mode	APM50-B1	50-110mm	48.0 kg

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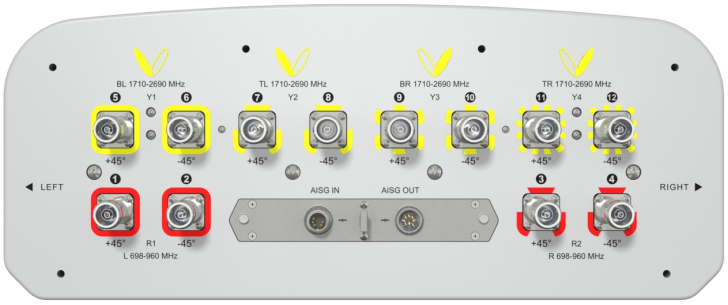

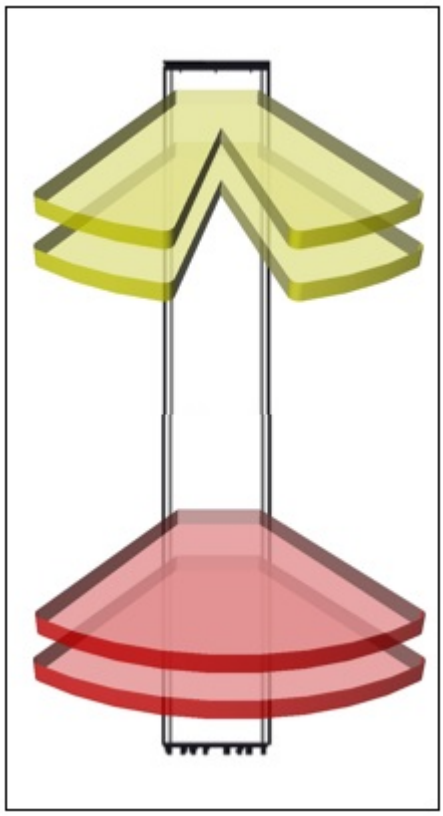

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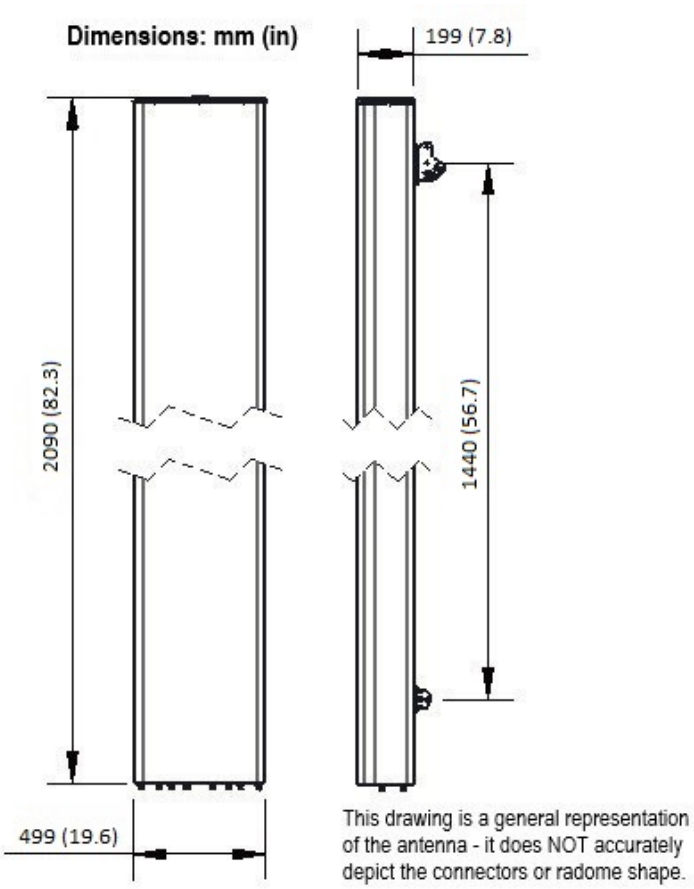

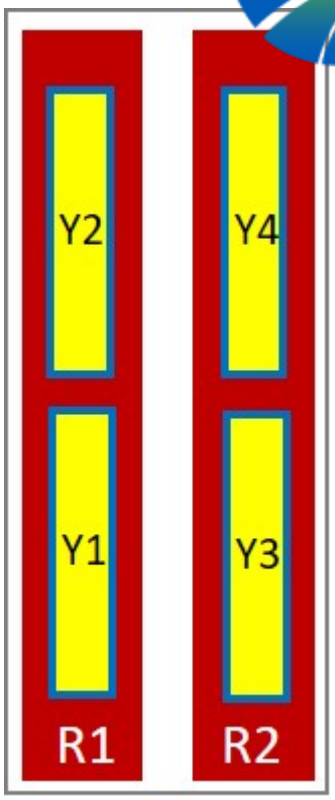

External Document Links

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