

APXVBBLL20B_43-C-I20, -A-I20

8-Ports, X-Pol, Panel Antenna, 2.0m, 2x 698-960/2x 1710-2690MHz, 65deg, Integrated RET

**FEATURES / BENEFITS**

- 4 ports / 2 cross pol systems in low band (698-960MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690MHz)
- Supporting 4x4 MIMO
- Integrated and field replaceable SRET
- ACU HW Version -2.02
- Optional with Direct Pipe no tilt mounting hardware (Model name Suffix -A-I20)
- 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	16	16.4	16.7
Gain Over all Tilts	dBi	14.9 +/- 1.1	16 +/- 0.4	16.5 +/- 0.2
Azimuth Beamwidth 3dB	Deg	61 +/- 8.6	54.6 +/- 6.3	49.7 +/- 6.1
Elevation Beamwidth 3dB	Deg	10.3 +/- 1.3	9.1 +/- 0.6	8.2 +/- 0.6
Cross Polar Discrimination at Boresight	dB	19.3	19.4	18.6
Cross Polar Discrimination over Sector	dB	7.7	10.3	9.9
F/B at +/-30deg Total Power	dB	19.5	22.5	21.4
First Upper Side Lobe Suppression	dB	11.3	11.3	10.8
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	-150		
Maximum Effective Power per Port	Watt	350		

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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		LOW BAND ARRAY (698-960MHZ) [R2]		
Frequency Band	MHz	698-806	790-894	880-960
Gain Typical	dBi	16.1	16.5	16.7
Gain Over all Tilts	dBi	14.9 +/- 1.2	16 +/- 0.5	16.4 +/- 0.3
Azimuth Beamwidth 3dB	Deg	61.5 +/- 7.3	55.9 +/- 6.7	50.4 +/- 7.1
Elevation Beamwidth 3dB	Deg	10.3 +/- 1.3	9.1 +/- 0.7	8.2 +/- 0.5
Cross Polar Discrimination at Boresight	dB	18.9	19.6	22
Cross Polar Discrimination over Sector	dB	8.1	9.2	9.1
F/B at +/-30deg Total Power	dB	20.6	21.4	20.9
First Upper Side Lobe Suppression	dB	11.4	11.4	11
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	-150		
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	17.8	18.3	18.6	18.5	19
Gain Over all Tilts	dBi	17.3 +/- 0.5	17.7 +/- 0.6	17.9 +/- 0.7	18.1 +/- 0.4	18.4 +/- 0.6
Azimuth Beamwidth 3dB	Deg	59.7 +/- 6.5	63.2 +/- 7.3	60.4 +/- 11.8	60.6 +/- 8.9	53.7 +/- 5.3
Elevation Beamwidth 3dB	Deg	5.4 +/- 0.5	4.9 +/- 0.4	4.6 +/- 0.5	4 +/- 0.3	3.8 +/- 0.4
Cross Polar Discrimination at Boresight	dB	15.8	17.3	14.1	15.1	19.2
Cross Polar Discrimination over Sector	dB	8.4	5.7	5.1	1.6	1.1
F/B at +/-30deg Total Power	dB	22.6	24.5	23.4	20.8	21.2
First Upper Side Lobe Suppression	dB	16.3	16.2	15.8	16.3	15.2
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	-150				
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	17.7	18.2	18.2	18.5	18.9
Gain Over all Tilts	dBi	17.1 +/- 0.6	17.6 +/- 0.6	17.7 +/- 0.5	18 +/- 0.5	18.2 +/- 0.7
Azimuth Beamwidth 3dB	Deg	61.4 +/- 7.4	62.3 +/- 7	60.3 +/- 11	63.5 +/- 8.9	55.3 +/- 6
Elevation Beamwidth 3dB	Deg	5.4 +/- 0.5	5 +/- 0.3	4.7 +/- 0.5	4.1 +/- 0.4	3.8 +/- 0.4
Cross Polar Discrimination at Boresight	dB	16	16.8	15	13.8	17.7
Cross Polar Discrimination over Sector	dB	8.2	4.3	3.9	1.3	1.2
F/B at +/-30deg Total Power	dB	22.7	25	22.9	22.7	22.4
First Upper Side Lobe Suppression	dB	17	18.2	17.5	17.1	15.7
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	-150				
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)	2090 x 499 x 199 (82.3 x 19.6 x 7.8)
Weight (Antenna Only)	kg (lb)	36 (79.4)
Packing size- HxWxD	mm (in)	2340 x 595 x 295 (92.1 x 23.4 x 11.6)
Connector type		8 x 4.3-10 female/bottom + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		Fiber Glass / 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	200 (150)
Wind Load @Rated Wind Front	N	701
Wind Load @Rated Wind Side	N	557
Wind Load @Rated Wind Rear	N	833

PRODUCT DATASHEET

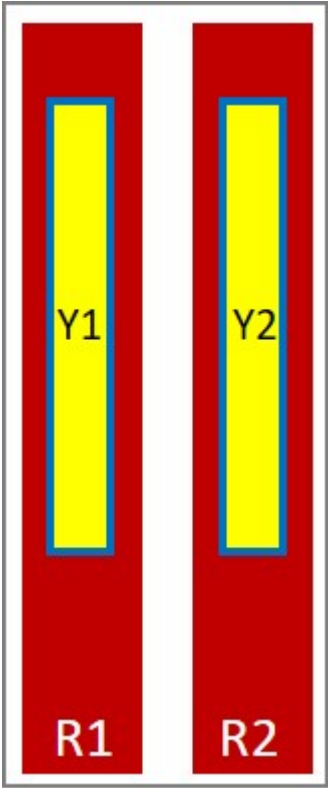
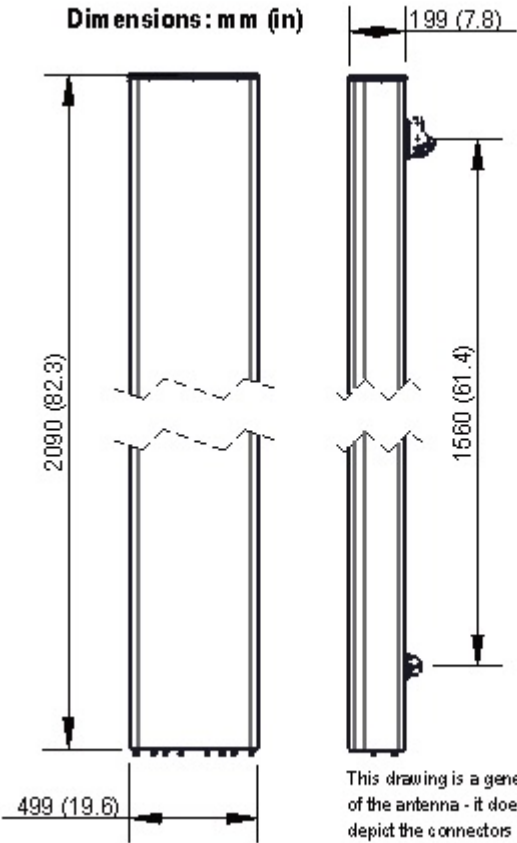
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ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight kg(lb)	Mounting Hardware Weight kg(lb)
APXVBBLL20B_43-C-I20	Internal RET (ACU-I20-B4)	APM50-B1	50-110mm	47.0 (103.6)	4.5 (9.9)
APXVBBLL20B_43-A-I20	Internal RET (ACU-I20-B4)	APM50-B1N (Direct Pipe no tilt)	50-110mm	45.9 (101.2)	3.4 (7.5)



External Document Links

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[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](#)