

FEATURES / BENEFITS

- 4 ports / 2 cross pol systems in low band (698-960MHz)
- 8 ports / 4 cross pol systems in high band (1710-2690MHz)
- Supporting 4x4 MIMO in low band and high band
- 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]		
Frequency Band	MHz	698-806	790-894	880-960
Gain Typical	dBi	15.9	16.2	16.1
Gain Over all Tilts	dBi	15.2 +/- 0.7	15.9 +/- 0.3	15.8 +/- 0.3
Azimuth Beamwidth 3dB	Deg	63.4 +/- 2.4	64.5 +/- 2.7	67.8 +/- 4
Elevation Beamwidth 3dB	Deg	11.4 +/- 1	10.4 +/- 0.5	9.8 +/- 0.4
Cross Polar Discrimination at Boresight	dB	22.1	21.9	25.3
Cross Polar Discrimination over Sector	dB	9.3	12.1	10.4
F/B at +/-30deg Total Power	dB	18.5	22.4	22.8
First Upper Side Lobe Suppression	dB	21.3	16.1	12.2
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	350		

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Array (698-960 MHz) [R2]		
Frequency Band	MHz	698-806	790-894	880-960
Gain Typical	dBi	15.8	16.2	16.2
Gain Over all Tilts	dBi	15.1 +/- 0.7	15.9 +/- 0.3	15.7 +/- 0.5
Azimuth Beamwidth 3dB	Deg	60.7 +/- 3.1	63 +/- 3.6	67.3 +/- 4.1
Elevation Beamwidth 3dB	Deg	11.2 +/- 0.8	10.3 +/- 0.5	9.7 +/- 0.4
Cross Polar Discrimination at Boresight	dB	22.8	23	25
Cross Polar Discrimination over Sector	dB	8.5	12.4	10.2
F/B at +/-30deg Total Power	dB	19.5	24.4	21.8
First Upper Side Lobe Suppression	dB	19.1	15.8	11.6
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		

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	15.1	14.9	15.6	15.2	15.9
Gain Over all Tilts	dBi	14.4 +/- 0.7	14.4 +/- 0.5	14.8 +/- 0.8	14.7 +/- 0.5	15.2 +/- 0.7
Azimuth Beamwidth 3dB	Deg	60.3 +/- 5.6	60.1 +/- 6.3	55.1 +/- 8.6	57.2 +/- 9	53.6 +/- 3.3
Elevation Beamwidth 3dB	Deg	12.2 +/- 0.9	11.4 +/- 1	10.6 +/- 1.1	9.5 +/- 1	8.5 +/- 0.5
Cross Polar Discrimination at Boresight	dB	13.3	13.4	14.2	15.9	18.8
Cross Polar Discrimination over Sector	dB	7.6	4.9	3.9	1.1	0.9
F/B at +/-30deg Total Power	dB	21	20.2	20.3	19.8	19.8
First Upper Side Lobe Suppression	dB	16.4	17.7	17.7	15	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	15	14.8	15.5	15.3	15.6
Gain Over all Tilts	dBi	14.4 +/- 0.6	14.4 +/- 0.4	14.7 +/- 0.8	14.8 +/- 0.5	15.1 +/- 0.5
Azimuth Beamwidth 3dB	Deg	58.6 +/- 5.1	58.9 +/- 4.5	55.3 +/- 7.5	56.5 +/- 8.4	55.9 +/- 4.6
Elevation Beamwidth 3dB	Deg	11.6 +/- 1.1	10.7 +/- 0.9	9.9 +/- 1.4	8.5 +/- 0.7	7.9 +/- 0.7
Cross Polar Discrimination at Boresight	dB	14.7	15.4	14.4	16.2	19.1
Cross Polar Discrimination over Sector	dB	9.2	6.3	5.5	1.1	0.8
F/B at +/-30deg Total Power	dB	21.1	19.9	20.2	21.1	20.3
First Upper Side Lobe Suppression	dB	15.1	17.1	19.3	16.3	16.2
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) [Y3]				
Frequency Band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	14.8	14.9	15.6	15.4	15.7
Gain Over all Tilts	dBi	14.1 +/- 0.7	14 +/- 0.9	14.5 +/- 1.1	14.8 +/- 0.6	15.1 +/- 0.6
Azimuth Beamwidth 3dB	Deg	61 +/- 4.7	57.2 +/- 6.7	53.3 +/- 7.3	57.2 +/- 8.7	55.1 +/- 4.8
Elevation Beamwidth 3dB	Deg	12.2 +/- 1.3	11.3 +/- 1	10.5 +/- 1.2	9.4 +/- 0.8	8.4 +/- 0.8
Cross Polar Discrimination at Boresight	dB	13	15.2	15.6	16.5	18.5
Cross Polar Discrimination over Sector	dB	6.9	4.4	3.8	0.8	0.8
F/B at +/-30deg Total Power	dB	21.2	19.8	19.8	20	19.7
First Upper Side Lobe Suppression	dB	15.9	17.3	18.3	17.3	14.9
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) [Y4]				
Frequency Band	MHz	1710 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	15.2	15.1	15.6	15.4	15.5
Gain Over all Tilts	dBi	14.4 +/- 0.8	14.5 +/- 0.6	14.8 +/- 0.8	14.8 +/- 0.6	15 +/- 0.5
Azimuth Beamwidth 3dB	Deg	59 +/- 5.2	58 +/- 7.1	55 +/- 8.3	57.9 +/- 6.4	55.5 +/- 5
Elevation Beamwidth 3dB	Deg	11.5 +/- 0.9	10.6 +/- 1.1	9.8 +/- 1.2	8.4 +/- 0.7	7.8 +/- 0.8
Cross Polar Discrimination at Boresight	dB	15.2	14.7	15	18.1	19.5
Cross Polar Discrimination over Sector	dB	6.8	5.8	5.8	1.4	0.7
F/B at +/-30deg Total Power	dB	21.4	20.7	20.3	20.7	20
First Upper Side Lobe Suppression	dB	13.6	16.4	17.9	16.3	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	-150				
Maximum Effective Power per Port	Watt	250				

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

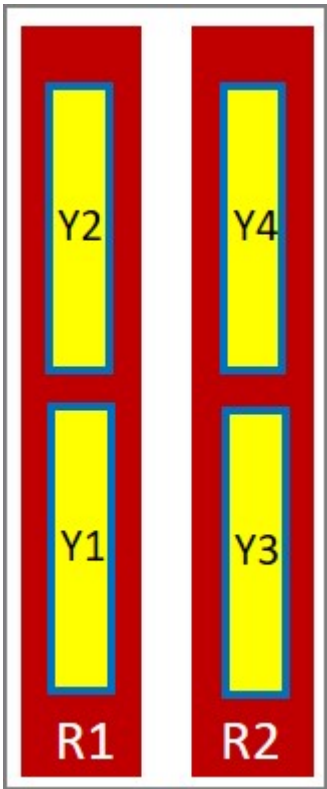
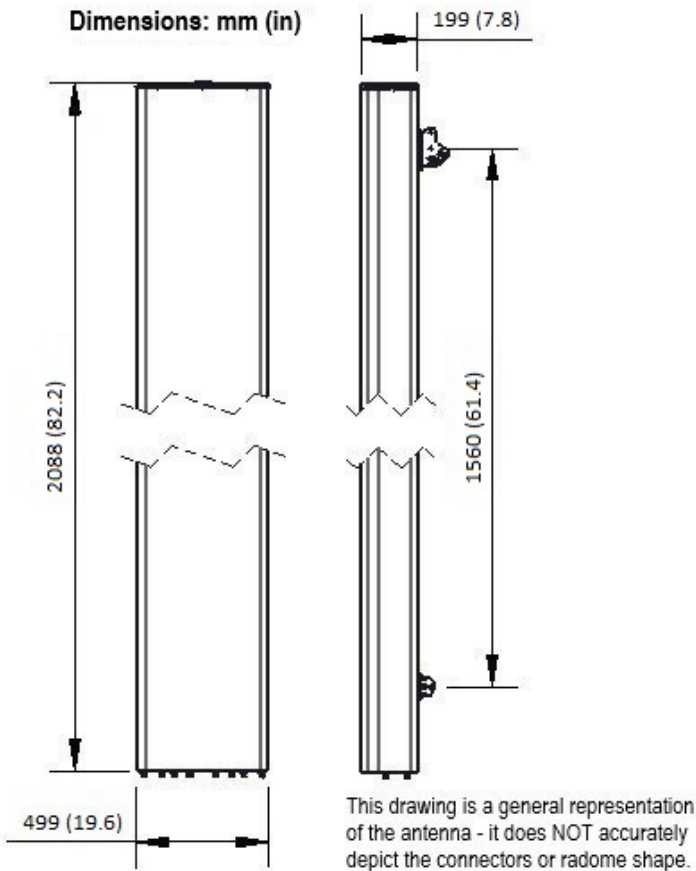
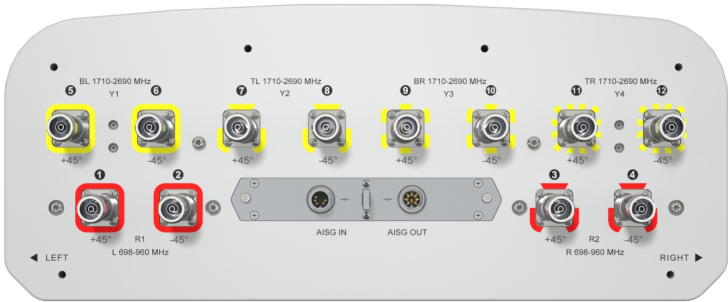
Dimensions - H x W x D	mm (in)	2088 x 499 x 199 (82.2 x 19.6 x 7.8)
Weight (Antenna Only)	kg (lb)	40.5 (89.3)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	2340 x 595 x 295 (92.1 x 23.4 x 11.6)
Shipping Weight	kg (lb)	52.5 (115.7)
Connector type		12 x 4.3-10 female/bottom + 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	1241
Wind Load @Rated Wind Side	N	570
Wind Load @Rated Wind Rear	N	1669

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVBB4L20B_43-C-I20	Internal RET (ACU-I20-B6)	APM50-B1	50-110mm	52.5 kg



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](#)