

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 / 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	14.6	15	15.1
Gain Over all Tilts	dBi	13.5+/-1.1	14.5+/-0.5	14.6+/-0.5
Azimuth Beamwidth 3dB	Deg	63.8+/-5.1	62+/-2.6	62.4+/-4.1
Elevation Beamwidth 3dB	Deg	16.1+/-1.5	14.4+/-0.6	13.5+/-1
Cross Polar Discrimination at Boresight	dB	18.9	19	23
Cross Polar Discrimination over Sector	dB	8.9	11	11
F/B at +/-30deg Total Power	dB	20	20.9	20
First Upper Side Lobe Suppression	dB	15	18.2	14
Electrical Downtilt	Deg	2 to 15		
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		

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Array (698-960 MHz) [R2]		
Frequency Band	MHz	698-806	790-894	880-960
Gain Typical	dBi	14.5	14.9	15.2
Gain Over all Tilts	dBi	13.5+/-1	14.4+/-0.5	14.7+/-0.5
Azimuth Beamwidth 3dB	Deg	62.7+/-5.7	62.1+/-3	62+/-2.7
Elevation Beamwidth 3dB	Deg	16.1+/-1.3	14.6+/-1	13.6+/-1
Cross Polar Discrimination at Boresight	dB	18	20	22.6
Cross Polar Discrimination over Sector	dB	9	12	9.1
F/B at +/-30deg Total Power	dB	20	22	21
First Upper Side Lobe Suppression	dB	18.8	18.7	16
Electrical Downtilt	Deg	2 to 15		
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		

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	14.4	14.2	16	15.9	16.4
Gain Over all Tilts	dBi	14+/-0.4	14.1+/-0.1	15+/-1	15.2+/-0.7	15.9+/-0.5
Azimuth Beamwidth 3dB	Deg	56.2+/-6	57.9+/-5.1	54+/-7.9	56.6+/-8.8	51.8+/-4
Elevation Beamwidth 3dB	Deg	15.5+/-1.5	14.7+/-1.5	13.5+/-1.5	12.1+/-1	11.1+/-1
Cross Polar Discrimination at Boresight	dB	12.7	13.8	11	11	16.4
Cross Polar Discrimination over Sector	dB	9	6	3	1	1
F/B at +/-30deg Total Power	dB	18.7	17.4	18	19	18
First Upper Side Lobe Suppression	dB	16.1	17	18	13	12
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	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	14.7	14.8	15.2	16	16.9
Gain Over all Tilts	dBi	14.2+/-0.5	14.3+/-0.5	14.6+/-0.6	15+/-1	16.4+/-0.5
Azimuth Beamwidth 3dB	Deg	58.5+/-5.9	62.2+/-5.3	58.5+/-8.9	58.8+/-10.2	55.1+/-6.1
Elevation Beamwidth 3dB	Deg	12.7+/-1	11.8+/-1	11+/-1	9.7+/-1	9.1+/-0.7
Cross Polar Discrimination at Boresight	dB	12.2	15.6	14	14	19.6
Cross Polar Discrimination over Sector	dB	8.4	7.9	6	1	1
F/B at +/-30deg Total Power	dB	19	18.6	18	19.1	21
First Upper Side Lobe Suppression	dB	19	19.6	21.5	20.1	18
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	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	14.9	14.7	15.8	16.2	16.6
Gain Over all Tilts	dBi	13.9+/-1	14+/-0.7	14.8+/-1	15.2+/-1	16.1+/-0.5
Azimuth Beamwidth 3dB	Deg	59.2+/-6.2	60.2+/-6	58.1+/-7.7	54.5+/-7.6	51.2+/-4.4
Elevation Beamwidth 3dB	Deg	15.7+/-1.5	14.8+/-1	13.6+/-1.5	12.3+/-1.4	11+/-1
Cross Polar Discrimination at Boresight	dB	13	17.7	13	11.6	17.9
Cross Polar Discrimination over Sector	dB	6.9	4.5	2	1	1
F/B at +/-30deg Total Power	dB	19.4	18	18	18.2	18
First Upper Side Lobe Suppression	dB	14.6	15.3	17	13.6	11.8
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	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	14.8	14.9	15.1	15.9	16.8
Gain Over all Tilts	dBi	14.3+/-0.5	14.4+/-0.5	14.6+/-0.5	14.9+/-1	16.3+/-0.5
Azimuth Beamwidth 3dB	Deg	56.3+/-3.8	57.1+/-5	57+/-8.4	58.7+/-8.1	53.1+/-5.5
Elevation Beamwidth 3dB	Deg	12.7+/-1	11.9+/-1	11+/-1.1	9.8+/-0.9	9.1+/-1
Cross Polar Discrimination at Boresight	dB	14	15	14.9	15	17.6
Cross Polar Discrimination over Sector	dB	6.9	8	6	3	1
F/B at +/-30deg Total Power	dB	19	19.4	19	18.6	20
First Upper Side Lobe Suppression	dB	20	20	19	19.5	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	250				

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

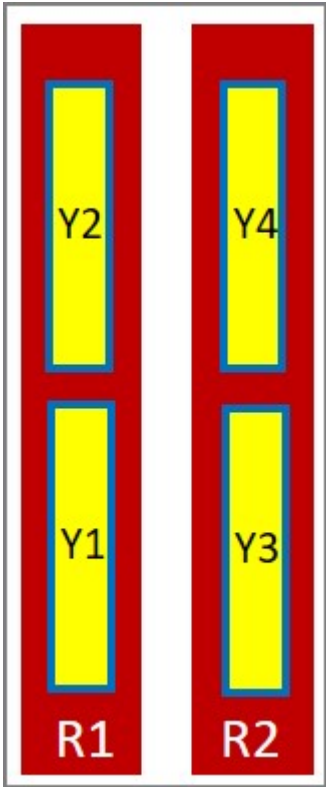
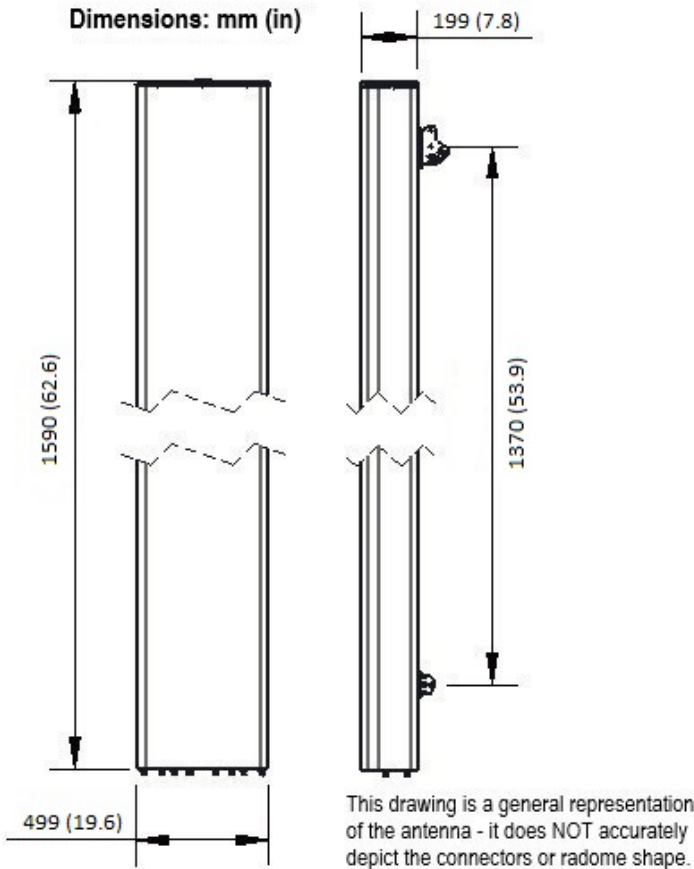
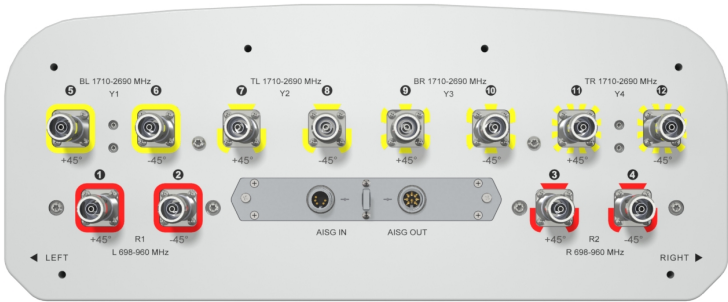
Dimensions - H x W x D	mm (in)	1590 x 499 x 199 (62.6 x 19.6 x 7.8)
Weight (Antenna Only)	kg (lb)	32.4 (71.4)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	1840 x 595 x 295 (72.4 x 23.4 x 11.6)
Shipping Weight	kg (lb)	42.5 (93.7)
Connector type		12 x 4.3-10 female/bottom + 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	974
Wind Load @Rated Wind Side	N	332
Wind Load @Rated Wind Rear	N	1018

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVBB4L15B_43-C-I20	Internal RET (ACU-I20-B6)	APM50-B1	50-110mm	42.5 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](#)