



FEATURES / BENEFITS

- 2 ports / 1 cross pol system in low band (698-960MHz)
- 8 ports / 4 cross pol systems in high band (1710-2690MHz)
- 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	14.4	14.7	15.1
Gain Over all Tilts	dBi	14 +/- 0.4	14.3 +/- 0.4	14.6 +/- 0.5
Azimuth Beamwidth 3dB	Deg	67.7 +/- 1.5	65.7 +/- 1.9	64.8 +/- 2.6
Elevation Beamwidth 3dB	Deg	18 +/- 1.5	16.1 +/- 1.2	14.7 +/- 1
Cross Polar Discrimination at Boresight	dB	21.7	20.2	21
Cross Polar Discrimination over Sector	dB	10.1	7.8	7.8
F/B at +/-30deg Total Power	dB	23.7	23.7	20.8
First Upper Side Lobe Suppression	dB	21.5	18.2	12.3
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	-153		
Maximum Effective Power per Port	Watt	500		



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	14.2	14.4	14.6	14.8	15
Gain Over all Tilts	dBi	13.6 +/- 0.6	14.2 +/- 0.2	14.3 +/- 0.3	13.9 +/- 0.9	14.3 +/- 0.7
Azimuth Beamwidth 3dB	Deg	63.4 +/- 4.3	64.5 +/- 4.3	64.6 +/- 3.3	64.2 +/- 2.7	60.9 +/- 4
Elevation Beamwidth 3dB	Deg	13.4 +/- 0.6	12.3 +/- 0.8	11.7 +/- 0.8	10.6 +/- 0.7	9.6 +/- 0.8
Cross Polar Discrimination at Boresight	dB	19.7	22.4	16.9	9.9	11.4
Cross Polar Discrimination over Sector	dB	11	8.9	7.8	6	4.9
F/B at +/-30deg Total Power	dB	21.9	22.7	23.2	22.4	20.5
First Upper Side Lobe Suppression	dB	12.5	13.1	12.3	10.6	10.8
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	-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	14.3	14.8	14.8	15	15.8
Gain Over all Tilts	dBi	13.7 +/- 0.6	14.3 +/- 0.5	14.3 +/- 0.5	14.4 +/- 0.6	15 +/- 0.8
Azimuth Beamwidth 3dB	Deg	69.3 +/- 8.5	68.5 +/- 4.1	66.4 +/- 6	62.8 +/- 3.8	58.5 +/- 4.7
Elevation Beamwidth 3dB	Deg	12.9 +/- 0.5	12.2 +/- 0.7	11.7 +/- 0.7	10.4 +/- 0.8	9.6 +/- 0.6
Cross Polar Discrimination at Boresight	dB	20.4	22.2	21.1	15.3	15.5
Cross Polar Discrimination over Sector	dB	11.2	8.3	8.6	10	6.6
F/B at +/-30deg Total Power	dB	22.1	22.5	22.9	23.4	23.2
First Upper Side Lobe Suppression	dB	14.8	14.5	13.3	13.5	12.5
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	-153				
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	14.3	14.6	14.7	15	15.4
Gain Over all Tilts	dBi	13.7 +/- 0.6	14.2 +/- 0.4	14.3 +/- 0.4	14.2 +/- 0.8	14.7 +/- 0.7
Azimuth Beamwidth 3dB	Deg	62.8 +/- 4.6	63.9 +/- 4.2	64.1 +/- 3.5	64.1 +/- 3.5	59.7 +/- 3.7
Elevation Beamwidth 3dB	Deg	13.4 +/- 1	12.3 +/- 0.6	11.8 +/- 0.8	10.5 +/- 0.6	9.5 +/- 0.9
Cross Polar Discrimination at Boresight	dB	23.1	23.2	17.7	11.4	12.9
Cross Polar Discrimination over Sector	dB	9.1	8.4	9.2	7.2	6.4
F/B at +/-30deg Total Power	dB	20.8	22.3	23	23.8	20.7
First Upper Side Lobe Suppression	dB	13.7	14.7	14.2	11.6	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	-153				
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	14.4	14.7	14.7	15	15.5
Gain Over all Tilts	dBi	13.8 +/- 0.6	14.4 +/- 0.3	14.4 +/- 0.3	14.3 +/- 0.7	14.7 +/- 0.8
Azimuth Beamwidth 3dB	Deg	68.8 +/- 8.5	67.7 +/- 2.1	65.6 +/- 5.4	62.4 +/- 2.9	58.7 +/- 4.4
Elevation Beamwidth 3dB	Deg	12.9 +/- 0.7	12.2 +/- 0.6	11.6 +/- 0.7	10.5 +/- 0.7	9.6 +/- 0.7
Cross Polar Discrimination at Boresight	dB	25.6	24.9	18.8	13	12.3
Cross Polar Discrimination over Sector	dB	9.6	9.5	9.3	9.6	7.2
F/B at +/-30deg Total Power	dB	21.1	20.9	21.1	22.4	20.6
First Upper Side Lobe Suppression	dB	13.8	13.8	12.3	13.1	13.5
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	-153				
Maximum Effective Power per Port	Watt	250				



ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

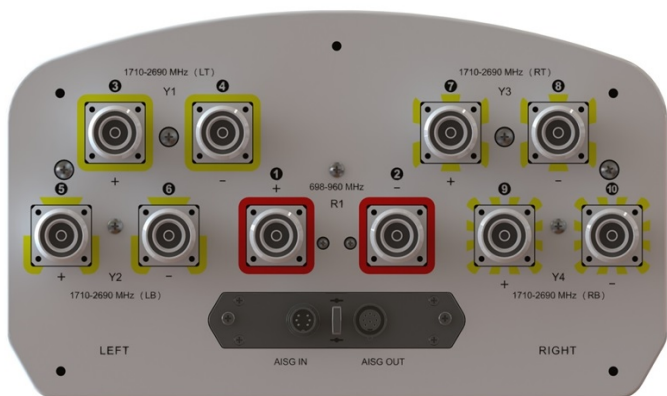
Dimensions - H x W x D	mm (in)	1495 x 350 x 200 (58.9 x 13.8 x 7.9)
Weight (Antenna Only)	kg (lb)	20.9 (46.1)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	1770 x 425 x 275 (69.7 x 16.7 x 10.8)
Shipping Weight	kg (lb)	29.2 (64.4)
Connector type		10 x 7/16 female/bottom + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		Fiberglass / Light Grey RAL7035

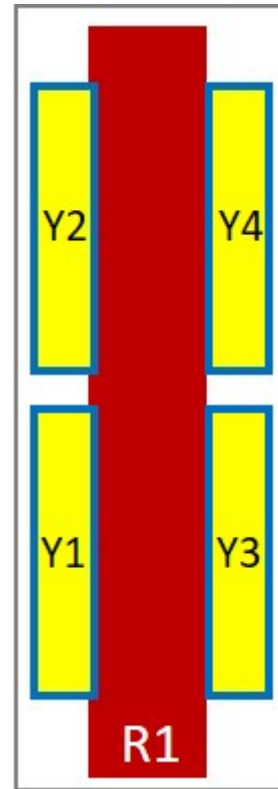
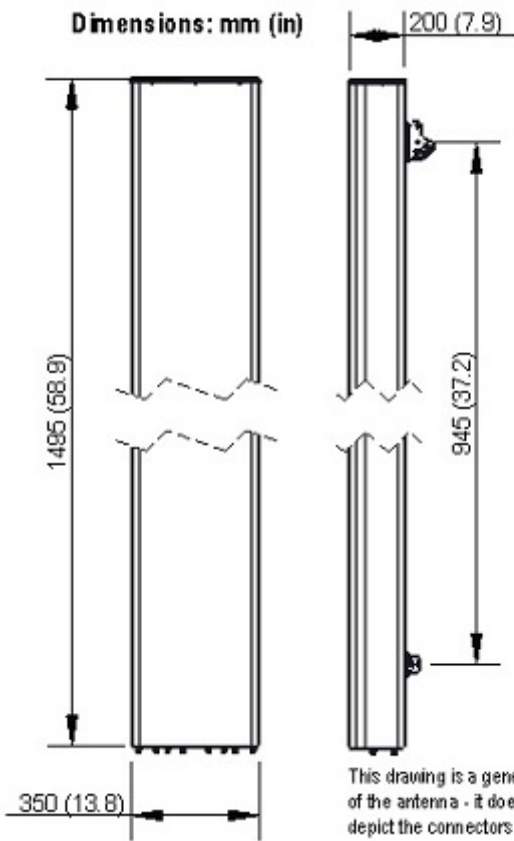
TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		Direct Ground
Survival/Rated Wind Velocity	km/h	200 (150)
Wind Load @Rated Wind Front	N	661
Wind Load @Rated Wind Side	N	378
Wind Load @Rated Wind Rear	N	760

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVB4L15B-C-I20	Internal RET (ACU-I20-B5)	APM50-B1	50-110mm	29.2 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](#)