



**APXVBB4L15H2\_43-C-I20**

12-port X-Pol Antenna, 1.5m, 2x 690-960/4x 1695-2690MHz, 65deg, 16.0/15.3/18.8/19.3/19.1/18.7dBi, 2-12deg, Integrated RET

**FEATURES / BENEFITS**

- 4 ports / 2 cross pol systems in low band (690-960MHz)
- 8 ports / 4 cross pol systems in high band (1695-2690MHz)
- Integrated and field replaceable SRET
- ACU HW Version -HRLS170901H1.00 / SW Version -SRLS190802V1.22
- Compliant with AISG V2.0 and 3GPP



**Technical features**

**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		Low Band Array (690-960 MHz) [R1]		
Frequency Band	MHz	690-806	790-894	880-960
Gain Typical	dBi	15	15.1	16
Gain Over All Tilts	dBi	14.5 +/- 0.5	15 +/- 0.1	15 +/- 1
Azimuth Beamwidth 3dB	Deg	61.1 +/- 7.5	66.7 +/- 7.5	69.2 +/- 6.3
Elevation Beamwidth 3dB	Deg	15.4 +/- 1.5	13.6 +/- 1.1	12.5 +/- 0.8
Cross Polar Discriminationat Boresight	dB	22.5	23.8	23
Cross Polar Discriminationover Sector	dB	11	10	9
F/B at 180deg *	dB	29	30	31
F/B at +/-30deg Total Power	dB	17.7	20	20
First Upper Side Lobe Suppression	dB	16	18	17
Electrical Downtilt	Deg	2 to 12		
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153		
VSWR	-	1.5		
Cross Polar Isolation	dB	25		
Interband Isolation	dB	25		
Maximum Effective Power per Port	Watt	250		



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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		Low Band Array (690-960 MHz) [R2]		
Frequency Band	MHz	690-806	790-894	880-960
Gain Typical	dBi	15	15.2	15.3
Gain Over all Tilts	dBi	14 +/- 1	14.7 +/- 0.5	14.8 +/- 0.5
Azimuth Beamwidth 3dB	Deg	60.7 +/- 6.5	66.6 +/- 6	69.1 +/- 6.9
Elevation Beamwidth 3dB	Deg	15.4 +/- 1.5	13.6 +/- 1.1	12.3 +/- 1
Cross Polar Discrimination at Boresight	dB	23	24	24
Cross Polar Discrimination over Sector	dB	10	9	7.2
F/B at 180deg *	dB	29	30	31
F/B at +/-30deg Total Power	dB	17.7	20	21
First Upper Side Lobe Suppression	dB	15.2	17	16
Electrical Downtilt	Deg	2 to 12		
Cross Polar Isolation	dB	25		
Interband Isolation	dB	25		
VSWR	-	1.5		
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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		HIGH BAND ARRAY (1695-2690 MHZ) [Y1]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.2	17.2	18.6	18.2	18.8
Gain Over all Tilts	dBi	16.7 +/- 0.5	17.1 +/- 0.1	17.7 +/- 0.9	17.7 +/- 0.5	18.2 +/- 0.6
Azimuth Beamwidth 3dB	Deg	65.3 +/- 5	62.2 +/- 2.4	57.9 +/- 4.3	55.9 +/- 1.9	56 +/- 4
Elevation Beamwidth 3dB	Deg	7.5 +/- 0.5	6.7 +/- 0.5	6.1 +/- 0.5	5.5 +/- 0.5	5 +/- 0.1
Cross Polar Discrimination at Boresight	dB	18.5	26.9	22	17.9	23
Cross Polar Discrimination over Sector	dB	5.3	6.4	4.1	2	1
F/B at 180deg *	dB	29	29	29	30	30
F/B at +/-30deg Total Power	dB	24	24.7	24	22.1	23.7
First Upper Side Lobe Suppression	dB	22	20.4	16	11.8	12.7
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				



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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		HIGH BAND ARRAY (1695-2690 MHz) [Y2]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.1	17.1	17.9	18.1	19.3
Gain Over all Tilts	dBi	16.6 +/- 0.5	17 +/- 0.1	17.4 +/- 0.5	18 +/- 0.1	18.8 +/- 0.5
Azimuth Beamwidth 3dB	Deg	73.1 +/- 7	69.9 +/- 3.5	66 +/- 3.4	59.1 +/- 4	62 +/- 4.7
Elevation Beamwidth 3dB	Deg	6.7 +/- 0.5	6.2 +/- 0.5	5.7 +/- 0.5	5 +/- 0.1	5 +/- 0.1
Cross Polar Discrimination at Boresight	dB	24.7	21.2	20	21.7	14
Cross Polar Discrimination over Sector	dB	16	14.8	12	8.9	6
F/B at 180deg *	dB	29	29	29	30	30
F/B at +/-30deg Total Power	dB	26	26	25.9	27	27.9
First Upper Side Lobe Suppression	dB	19.9	19	16.6	20.3	21
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				



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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		High Band Array (1695-2690 MHz) [Y3]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.1	17	18	18.3	19.1
Gain Over All Tilts	dBi	16.6 +/- 0.5	16.9 +/- 0.1	17.5 +/- 0.5	17.8 +/- 0.5	18.6 +/- 0.5
Azimuth Beamwidth 3dB	Deg	71 +/- 6.6	68.8 +/- 5.1	65.2 +/- 4.1	59.7 +/- 3.3	60.6 +/- 5
Elevation Beamwidth 3dB	Deg	6.9 +/- 0.9	6.2 +/- 0.5	5.7 +/- 0.5	5 +/- 0.1	4.8 +/- 0.5
Cross Polar Discrimination at Boresight	dB	20	19.5	18	20.7	15
Cross Polar Discrimination over Sector	dB	14.7	13.7	9	6.8	4
F/B at 180deg *	dB	29	29	29	30	30
F/B at +/-30deg Total Power	dB	26	26.9	27.3	26.8	27.2
First Upper Side Lobe Suppression	dB	15.2	15	14	18.2	19.1
Electrical Downtilt Range	Deg	2 to 12				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
VSWR	-	1.5				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
Maximum Effective Power per Port	Watt	200				



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**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		HIGH BAND ARRAY (1695-2690 MHZ) [Y4]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	16.8	17.2	18.3	18.1	18.7
Gain Over all Tilts	dBi	16.3 +/- 0.5	16.7 +/- 0.5	17.7 +/- 0.6	17.6 +/- 0.5	18.2 +/- 0.5
Azimuth Beamwidth 3dB	Deg	66.5 +/- 7	63.9 +/- 4.5	60.4 +/- 7.3	55.9 +/- 4.8	55.4 +/- 3.7
Elevation Beamwidth 3dB	Deg	7.4 +/- 0.5	6.7 +/- 0.5	6.1 +/- 0.5	5.5 +/- 0.5	5 +/- 0.1
Cross Polar Discrimination at Boresight	dB	19	19.9	19	20.4	19.6
Cross Polar Discrimination over Sector	dB	6.5	8.7	5.5	2	1
F/B at 180deg *	dB	29	29	29	30	30
F/B at +/-30deg Total Power	dB	21.7	22.5	23.4	23.6	25
First Upper Side Lobe Suppression	dB	22	19	16	12.6	12.7
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				

**ELECTRICAL SPECIFICATIONS**

Impedance	Ohm	50
Polarization	Deg	±45°

**MECHANICAL SPECIFICATIONS**

Dimensions - H x W x D	mm (in)	1498 x 560 x 180 (59 x 22 x 7.1)
Weight (Antenna Only)	kg (lb)	31.5 (69.4)
Weight (Mounting Hardware only)	kg (lb)	5.5 (12.1)
Packing size- HxWxD	mm (in)	1698 x 655 x 300 (66.9 x 25.8 x 11.8)
Shipping Weight	kg (lb)	39 (86)
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	775
Wind Load @Rated Wind Side	N	310
Wind Load @Rated Wind Rear	N	865

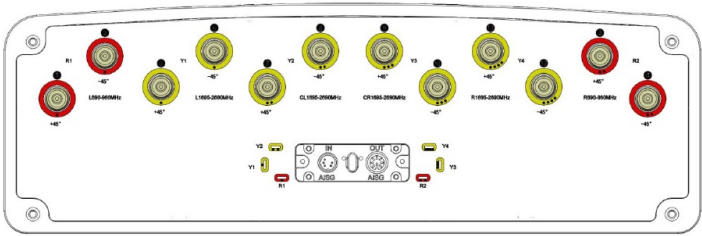


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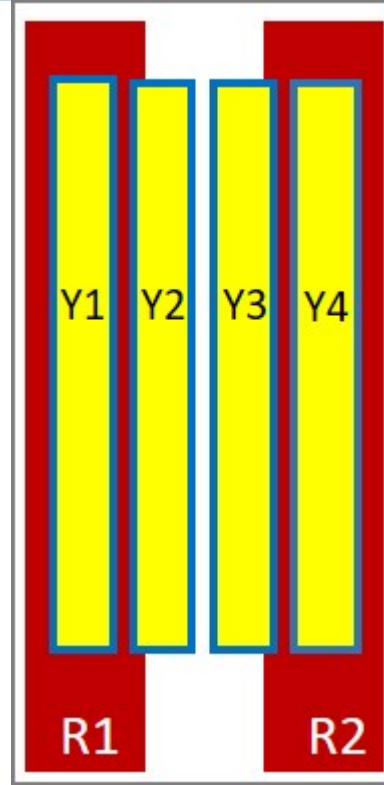
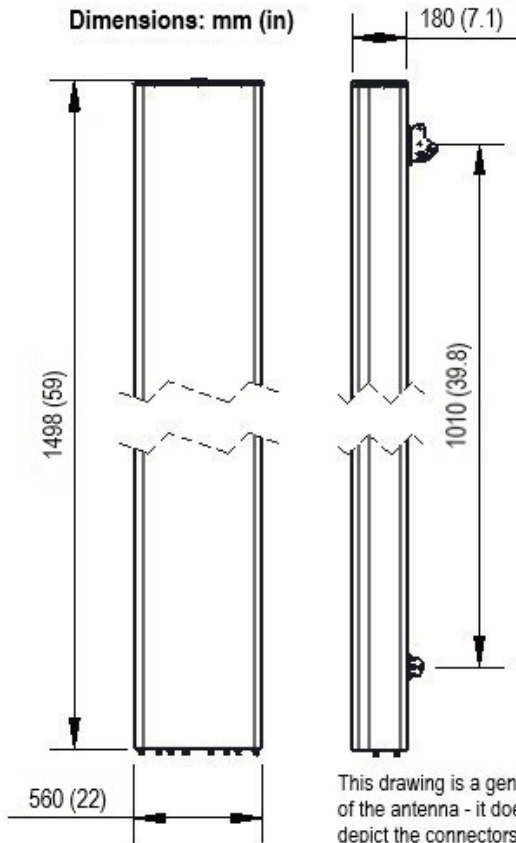
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#### ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVBB4L15H2_43-C-I20	Internal RET(ACU-I20-H12B)	APM50-H2	50-125mm	39 kg



Dimensions: mm (in)



#### 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".
- \* Non BASTA value

• Radiating patterns: [Request pattern files](#)