



APXVBB3U20_43-C-I20

Panel 10-ports antenna, X-Pol, 2m, 694-960/694-960/1427-2690/1427-2690/1427-2690 MHz, 65deg, 15.6/15.5/18.3/18.5/18.3 dBi, RET, 2-12°/2-12°/2-12°/2-12°/2-12°

FEATURES / BENEFITS

10-port Multiband highly flexible platform for advanced use both in low and high band.

- 4 ports / 2 systems in low band ultra-wide band
- 6 ports / 3 systems in high band ultra-wide band
- Slim design



Technical features



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Left Array (694-960 MHz) [R1]		
Frequency Band	Mhz	694-793	790-896	880-960
Gain Typical	dBi	14.7	15.4	15.6
Gain	dBi	14.4+/-0.3	14.9+/-0.5	15.1+/-0.5
VSWR	-	1.5:1		
Return Loss	dB	14		
Cross Polar Isolation	dB	25		
Interband Isolation	dB	24		
3rd Order IMP 2 x 43dBm	dBc	- 153		
Maximum Effective Power per Port	Watts	300		
Azimuth Beamwidth 3dB	Deg	63.7+/-3	59.1+/-6	57.1+/-4.6
Cross Polar Discrimination at Boresight	dB	21.3	21.1	22.1
Cross Polar Discrimination over Sector	dB	6.4	6.6	4.5
Azimuth Beam Squint 3dB	Deg	-2.1+/-2.4	-0.9+/-1.7	0.5+/-4.1
Azimuth Beam Port to Port Tracking @ Sector Edge	dB	1.1	2.1	3.4
Azimuth Beam Roll Off @ Sector Edge	dB	9.3+/-1.3	9.4+/-0.8	9+/-1.6
Sector Power Ratio	-	5.6+/-1	5.7+/-1.3	6.3+/-1.6
F/B at +/-30° Copolar	dB	24.1	26.9	28.6
F/B at +/-30° Total Power	dB	18.9	22.6	22.4
Elevation Beamwidth 3 dB	Deg	10.8+/-0.9	9.3+/-0.8	8.5+/-0.3
Electrical Downtilt	Deg	2 to 12		
First Upper Side Lobe Suppression	dB	16.9	15.8	13.8
Upper Side Lobe Suppression Peak to +20°	dB	16.3	15.7	13.9
Upper Side Lobe Suppression 0 to +20°	dB	15.2	15	13.6
Maximum Upper Side Lobe Level	dB	13.7	11.8	8.5
Null Fill	dB	32.1	31.5	33.6



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Right Array (694-960 MHz) [R2]		
Frequency Band	Mhz	694-793	790 - 896	880 - 960
Gain Typical	dBi	14.6	15.3	15.5
Gain Over All Tilts	dBi	14.3+/-0.3	14.8+/-0.5	15.0+/-0.5
VSWR	-	1.5:1		
Return Loss	dB	14		
Cross Polar Isolation	dB	25		
Interband isolation	dB	24		
3rd Order IMP 2 x 43dBm	dBc	-153		
Maximum Effective Power per Port	Watts	300		
Azimuth Beamwidth 3dB	Deg	63.8+/-4.9	59+/-5.9	57.6+/-4.9
Cross Polar Discrimination at Boresight	dB	21.5	21.3	20.1
Cross Polar Discrimination over Sector	dB	5.9	7.3	3.3
Azimuth Beam Squint 3dB	Deg	1.2+/-2.8	-1.2+/-1.8	-2.8+/-4.7
Azimuth Beam Port to Port Tracking @ Sector Edge	dB	1.6	2.5	4.1
Azimuth Beam Roll Off @ Sector Edge	dB	9.2+/-1.5	9.1+/-1.2	8.7+/-2
Sector Power Ratio	-	5.9+/-1.1	6+/-1.2	6.6+/-1.6
F/B at +/-30 Copolar	dB	25	29.6	28.3
F/B at +/-30 Total Power	dB	19.7	23.4	22.6
Elevation Beamwidth 3 dB	Deg	10.7+/-0.9	9.3+/-0.7	8.5+/-0.3
Electrical Downtilt	Deg	2 to 12		
First Upper Side Lobe Suppression	dB	15	14.6	12.8
Upper Side Lobe Suppression Peak to +20	dB	14.2	14.5	12.9
Upper Side Lobe Suppression 0 to +20	dB	13.7	14.3	12.9
Maximum Upper Side Lobe Level	dB	13.7	12.5	8.3
Null Fill	dB	32.3	31.4	34.9



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Left Array (1427-2690 MHz) [Y1]				
Frequency Band	Mhz	1427 - 1517	1695 - 1880	1850 - 2200	2300 - 2500	2490 - 2690
Gain Typical	dBi	14.7	16.4	18.3	18.0	18.1
Gain Over All Tilts	dBi	14.3+/-0.4	15.8+/-0.6	17.2+/-1.1	17.6+/-0.4	17.8+/-0.3
VSWR	-	1.5:1				
Return Loss	dB	14				
Cross Polar Isolation	dB	25				
Interband isolation	dB	24				
3rd Order IMP 2 x 43dBm	dBc	-153				
Maximum Effective Power per Port	Watts	300				
Azimuth Beamwidth 3dB	Deg	71.3+/-4.3	62.4+/-6.2	54.2+/-4.8	50.1+/-3.3	50.4+/-2.7
Cross Polar Discrimination at Boresight	dB	18	17.9	14.6	14.8	19.9
Cross Polar Discrimination over Sector	dB	7.5	2	0.5	0.7	2.3
Azimuth Beam Squint 3dB	Deg	-0.8+/-1.8	-0.2+/-3.1	-1.3+/-2.2	-1.1+/-4.1	-2.3+/-1.8
Azimuth Beam Port to Port Tracking @ Sector Edge	dB	1.2	3.4	4.0	4.8	7.4
Azimuth Beam Roll Off @ Sector Edge	dB	7.7+/-1.2	10.5+/-2.9	13.6+/-2.7	16+/-3.3	17+/-4.6
Sector Power Ratio	-	7.6+/-1.1	4.4+/-2.6	2+/-1	1+/-0.3	1+/-0.3
F/B at +/-30 Copolar	dB	21.9	22.6	25	26	25
F/B at +/-30 Total Power	dB	20.5	23.8	24.2	25.0	24.8
Elevation Beamwidth 3 dB	Deg	9.6+/-0.6	7.6+/-0.6	6.7+/-0.9	5.7+/-0.3	5.5+/-0.2
Electrical Downtilt	Deg	2 to 12				
First Upper Side Lobe Suppression	dB	15	16.9	20.1	19.4	18.5
Upper Side Lobe Suppression Peak to +20	dB	14.8	15.3	15.5	14.6	14.7
Upper Side Lobe Suppression 0 to +20	dB	14.8	15	14.6	14.2	14
Maximum Upper Side Lobe Level	dB	11.9	12.2	13.2	13.8	12.7
Null Fill	dB	33.2	26.7	27.4	21.8	19.3



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Center Array (1427-2690 MHz) [Y2]				
Frequency Band	Mhz	1427 - 1517	1695 - 1880	1850 - 2200	2300 - 2500	2490 - 2690
Gain Typical	dBi	15.2	17.2	18.1	17.9	18.5
Gain Over All Tilts	dBi	14.8+/-0.4	16.6+/-0.6	17.5+/-0.6	17.6+/-0.3	18+/-0.5
VSWR	-	1.5:1				
Return Loss	dB	14				
Cross Polar Isolation	dB	25				
Interband isolation	dB	24				
3rd Order IMP 2 x 43dBm	dBc	-153				
Maximum Effective Power per Port	Watts	300				
Azimuth Beamwidth 3dB	Deg	69+/-5.5	63.1+/-3.3	64.6+/-4.6	59.4+/-4	53.2+/-2.9
Cross Polar Discrimination at Boresight	dB	20	24.1	21.7	22	17
Cross Polar Discrimination over Sector	dB	13.2	10.8	6.3	0.7	0.9
Azimuth Beam Squint 3dB	Deg	-1.6+/-4.2	-1.5+/-2.2	-1.3+/-2.6	0.6+/-3.8	-1.2+/-2.7
Azimuth Beam Port to Port Tracking @ Sector Edge	dB	2.1	2.3	1.9	5.1	6
Azimuth Beam Roll Off @ Sector Edge	dB	7.8+/-1.4	9.1+/-1.4	10.5+/-1.7	12+/-2.9	13.4+/-4.6
Sector Power Ratio	-	7.4+/-1.5	5.5+/-1.7	3.2+/-1.2	2.3+/-0.4	1.6+/-0.8
F/B at +/-30 Copolar	dB	29.3	27.9	30.9	30.4	32
F/B at +/-30 Total Power	dB	29.3	29.5	31.9	32.3	32.8
Elevation Beamwidth 3 dB	Deg	9.9+/-0.5	7.7+/-0.5	6.7+/-0.7	5.9+/-0.4	5.6+/-0.3
Electrical Downtilt	Deg	2 to 12				
First Upper Side Lobe Suppression	dB	18.6	21.1	20.3	16.5	13.2
Upper Side Lobe Suppression Peak to +20	dB	17.7	17.5	16.4	14.8	13.7
Upper Side Lobe Suppression 0 to +20	dB	17.6	17	15.6	14.8	13.7
Maximum Upper Side Lobe Level	dB	12.9	14.4	15.2	14.6	13.7
Null Fill	dB	31.4	28	28.1	21.1	25.3



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Left Array (1427-2690 MHz) [Y3]				
Frequency Band	Mhz	1427 - 1517	1695 - 1880	1850 - 2200	2300 - 2500	2490 - 2690
Gain Typical	dBi	14.7	16.4	18.1	18.1	17.9
Gain Over All Tilts	dBi	14.3+/-0.4	15.8+/-0.6	17.2+/-1.1	17.6+/-0.5	17.6+/-0.3
VSWR	-	1.5:1				
Return Loss	dB	14				
Cross Polar Isolation	dB	25				
Interband isolation	dB	24				
3rd Order IMP 2 x 43dBm	dBc	-153				
Maximum Effective Power per Port	Watts	300				
Azimuth Beamwidth 3dB	Deg	70.4+/-4.8	61.4+/-5.5	54.8+/-5.8	50.8+/-2.6	51.6+/-2.1
Cross Polar Discrimination at Boresight	dB	18.3	19.7	15.3	16.8	21.3
Cross Polar Discrimination over Sector	dB	5.7	1.6	0.5	0.9	0.7
Azimuth Beam Squint 3dB	Deg	-0.7+/-1.4	-1.4+/-2.1	-1+/-3.2	1.5+/-3.7	-1.7+/-2.6
Azimuth Beam Port to Port Tracking @ Sector Edge	dB	1.1	2.4	3.4	4.5	4.4
Azimuth Beam Roll Off @ Sector Edge	dB	7.8+/-0.8	10.2+/-3	13.7+/-2.4	15.5+/-2.8	15.7+/-3.4
Sector Power Ratio	-	7+/-0.9	4.5+/-2.2	1.9+/-0.9	1.2+/-0.4	1.1+/-0.3
F/B at +/-30 Copolar	dB	24.7	24	24.1	25.9	25.4
F/B at +/-30 Total Power	dB	22.6	25.3	25.2	25.0	24.1
Elevation Beamwidth 3 dB	Deg	9.7+/-0.7	7.5+/-0.5	6.7+/-0.8	5.7+/-0.3	5.4+/-0.2
Electrical Downtilt	Deg	2 to 12				
First Upper Side Lobe Suppression	dB	15	17.2	19.9	20.7	17.7
Upper Side Lobe Suppression Peak to +20	dB	14.4	15.9	14.9	15.1	13.9
Upper Side Lobe Suppression 0 to +20	dB	13.8	15.3	14.4	14.1	12.4
Maximum Upper Side Lobe Level	dB	12	11.7	13.0	13.5	12.1
Null Fill	dB	31.3	27.6	29.5	24	21.4

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	2080 x 483 x 241 (81.9 x 19 x 9.5)
Weight (Antenna Only)	kg (lb)	50 (110.2)
Weight (Mounting Hardware only)	kg (lb)	11.5 (25.4)
Packing size- HxWxD	mm (in)	2240 x 560 x 406 (88.2 x 22 x 16)
Shipping Weight	kg (lb)	71.7 (158.1)
Connector type		10 x 4.3-10 Female at bottom + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		ASA / Light Grey RAL7035



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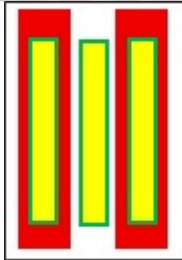
Panel 10-ports antenna, X-Pol, 2m, 694-960/694-960/1427-2690/1427-2690/1427-2690 MHz, 65deg, 15.6/15.5/18.3/18.5/18.3 dBi, RET, 2-12°/2-12°/2-12°/2-12°/2-12°

TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		DC Ground
Survival/Rated Wind Velocity	km/h	200 (160)
Wind Load @Rated Wind Front	N	1208
Wind Load @Rated Wind Side	N	594
Wind Load @Rated Wind Rear	N	1208

ORDERING INFORMATION

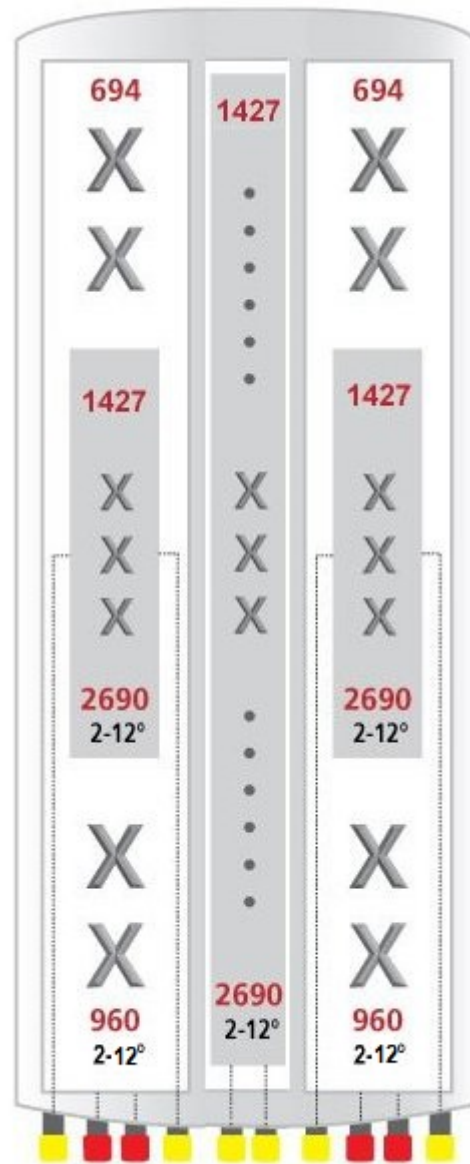
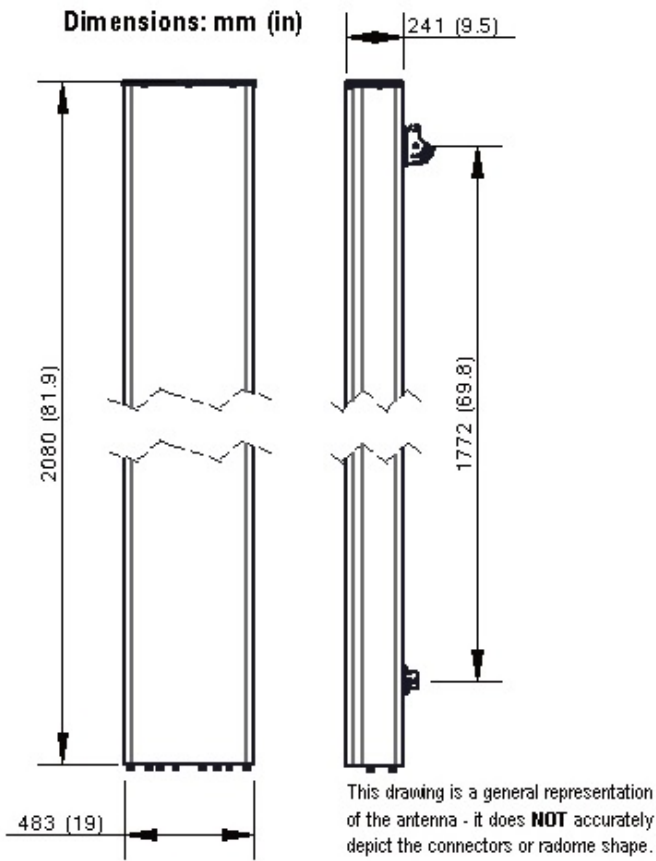
Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight
APXVBB3U20_43-C-I20	Internal RET Included	APM40-5E	60-120mm	71.7 kg





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External Document Links

[APM40_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](#)