



APXVTM15AB_MQ-C-I20

TDD 8T8R beamforming Antenna, 1.5m, 2300-2690MHz, 90deg unit beam, 17.3/19.1/22.5 dBi, 2-12deg, Integrated RET, MQ4/MQ5 connectors

FEATURES / BENEFITS

- Multiple Individual Beam Control (Unit Beam)
- High Powered Beam Option (Broadcast Beam)
- Calibration Port functionality for precise steering performance
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG V2.0 and 3GPP



Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Cal. board and S parameter (2300-2690 MHz) [Y1]	
Frequency Band	MHz	2300-2490	2490-2690
Coupling between cal. Port to input port	dB	-26+/-2	
Coupling amplitude accuracy	dB	≤ 0.9	
Coupling phase accuracy	deg	≤ 7	
VSWR	-	≤ 1.5	
Maximum Power	Watt	50	
ISO co-polor @ 2-6 deg tilt	dB	≥ 19	
ISO co-polor @ 7-12 deg tilt	dB	≥ 25	
ISO cross-polor @ 2-6 deg tilt	dB	≥ 24	
ISO cross-polor @ 7-12 deg tilt	dB	≥ 25	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Unit Beam (2300-2690 MHz) [Y1]	
Frequency Band	MHz	2300-2490	2490-2690
Gain Typical	dBi	17.3	17.2
Gain Over all Tilts	dBi	16.8 +/- 0.5	16.7 +/- 0.5
Azimuth Beamwidth 3dB	Deg	95 +/- 6.1	91.2 +/- 9.6
Elevation Beamwidth 3dB	Deg	5 +/- 0.1	4.1 +/- 0.5
Cross Polar Discrimination at Boresight	dB	16	15
Cross Polar Discrimination over Sector	dB	9	9
F/B at +/-30deg Total Power	dB	17	17
First Upper Side Lobe Suppression	dB	22	20
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	



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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Broad casting Beam (2300-2690 MHz) [Y1]	
Frequency Band	MHz	2300-2490	2490-2690
Gain Typical	dBi	18.5	19.1
Gain Over all Tilts	dBi	17.9 +/- 0.6	17.7 +/- 1.4
Azimuth Beamwidth 3dB	Deg	67.8 +/- 3	59.6 +/- 5.2
Elevation Beamwidth 3dB	Deg	4.8 +/- 0.2	4.3 +/- 0.4
Cross Polar Discrimination at Boresight	dB	28.5	14
Cross Polar Discrimination over Sector	dB	7.6	8
F/B at +/-30deg Total Power	dB	22	21.6
First Upper Side Lobe Suppression	dB	18.8	13.3
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Working Beam (2300-2690 MHz) [Y1]	
Frequency Band	MHz	2300-2490	2490-2690
Gain Typical	dBi	20.8	22.5
Gain Over all Tilts	dBi	20.1 +/- 0.7	21.7 +/- 0.8
Azimuth Beamwidth 3dB	Deg	23.1 +/- 0.7	20.9 +/- 0.7
Elevation Beamwidth 3dB	Deg	4.8 +/- 0.1	4.4 +/- 0.3
Cross Polar Discrimination at Boresight	dB	21.3	17.5
Cross Polar Discrimination over Sector	dB	1.8	1.9
F/B at +/-30deg Total Power	dB	26.6	26.5
First Upper Side Lobe Suppression	dB	23.4	17.3
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	1498 x 350 x 200 (59 x 13.8 x 7.9)
Weight (Antenna Only)	kg (lb)	19 (41.9)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	1750 x 445 x 295 (69 x 17.5 x 11.6)
Shipping Weight	kg (lb)	29 (63.9)
Connector type		2x Cluster conenctors MQ4/MQ5 + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		Fiber Glass / Light Grey RAL7035



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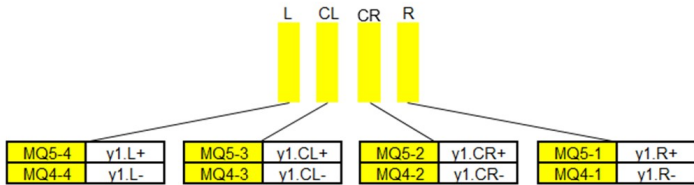
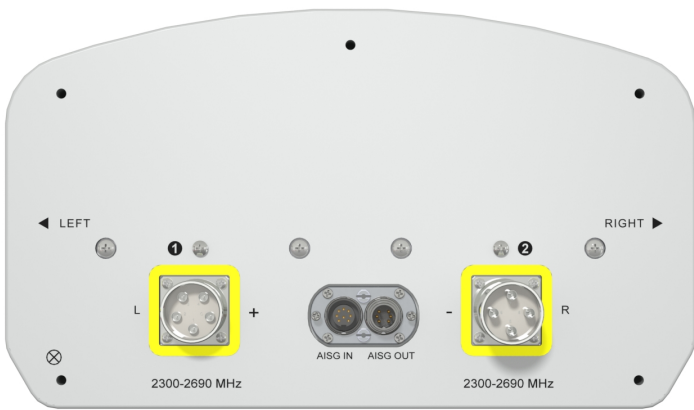
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TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		DC Ground
Survival/Rated Wind Velocity	km/h	200 (150)
Wind Load @Rated Wind Front	N	333
Wind Load @Rated Wind Side	N	318
Wind Load @Rated Wind Rear	N	386

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXVTM15AB_MQ-C-I20	Internal RET included	APM50-B1	50-110mm	29 kg

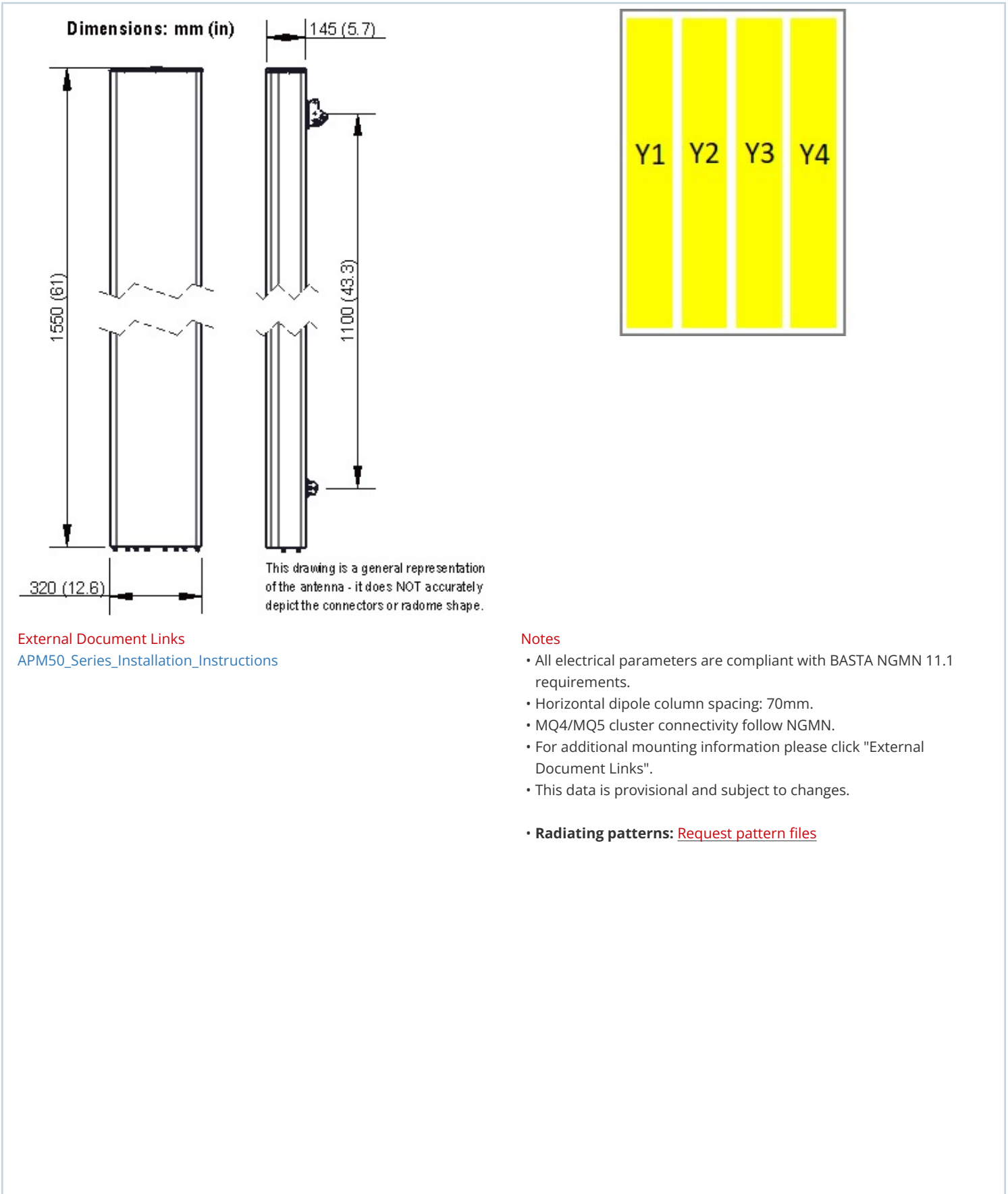


Physical array & port mapping according to AISG naming convention:
Left - Center Left - Center Right -Right (seen from front of antenna)



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External Document Links

[APM50_Series_Installation_Instructions](#)

Notes

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- Horizontal dipole column spacing: 70mm.
- MQ4/MQ5 cluster connectivity follow NGMN.
- For additional mounting information please click "External Document Links".
- This data is provisional and subject to changes.
- **Radiating patterns:** [Request pattern files](#)