PRODUCT DATASHEET

APXV9TY10AB_43-C-I20

TDD 8T8R Antenna, X-Pol, 1.0m, 3300-3800MHz, 90deg unit beam, Integrated RET

This antenna offers 4 columns (8 Ports) for 3.5GHz beamforming. It is ideal for 5G introduction

FEATURES / BENEFITS

- Beamforming applications in the 3.5GHz band (3300-3800MHz)
- Multiple Individual Beam Control (Unit Beam)
- Single High Powered Beam Option (Broadcast Beam)
- Beam steering flexibility (Service 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 (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Coupling between cal. Port to input port	dB	-26+/-2	
Coupling amplitude accuracy	dB	≤ 1.0	
Coupling phase accuracy	deg	≤ 10	
VSWR	-	≤ 1.5	
Maximum Power	Watt	50	
ISO co-polor	dB	≥ 19	
ISO cross-polor	dB	≥ 24	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Unit Beam (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Gain Typical	dBi	16.9	16.8
Gain Over all Tilts	dBi	16.2+/-0.7	16.2+/-0.6
Azimuth Beamwidth 3dB	Deg	96.9+/-10.9	89.0+/-8.5
Elevation Beamwidth 3dB	Deg	5.7+/-0.6	5.3+/-0.4
Cross Polar Discrimination at Boresight	dB	19.2	18.2
Cross Polar Discrimination over Sector	dB	12.7	12.6
F/B at +/-30deg Total Power	dB	20.8	21.5
First Upper Side Lobe Suppression	dB	16.6	17.9
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

All values nominal unless tolerances provided; information contained in the present datasheet is subject to confirmation at time of ordering.

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Broadcasting Beam (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Gain Typical	dBi	17.6	17.6
Gain Over all Tilts	dBi	17.0 +/- 0.6	17.0 +/- 0.6
Azimuth Beamwidth 3dB	Deg	62.2 +/- 15.3	59.1 +/- 5.7
Elevation Beamwidth 3dB	Deg	6.2 +/- 0.7	5.9 +/- 0.5
Cross Polar Discrimination at Boresight	dB	21.2	25.4
Cross Polar Discrimination over Sector	dB	13.7	13.1
F/B at +/-30deg Total Power	dB	20.6	21.6
First Upper Side Lobe Suppression	dB	12.8	17
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Working Beam (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Gain Typical	dBi	21.3	20.9
Gain Over all Tilts	dBi	20.7 +/- 0.6	20.5 +/- 0.4
Azimuth Beamwidth 3dB	Deg	24.9 +/- 1	23.5 +/- 0.6
Elevation Beamwidth 3dB	Deg	6.1 +/- 0.6	5.9 +/- 0.4
Cross Polar Discrimination at Boresight	dB	23.1	25.6
Cross Polar Discrimination over Sector	dB	8.3	3.6
F/B at +/-30deg Total Power	dB	24.9	23.8
First Upper Side Lobe Suppression	dB	15.6	19.1
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

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MECHANICAL SPECIFICATIONS

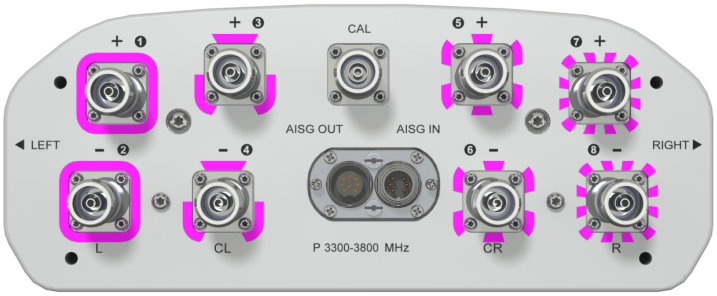
Dimensions - H x W x D	mm (in)	1050 x 295 x 115 (41.3 x 11.6 x 4.5)
Weight (Antenna Only)	kg (lb)	11.9 (26.2)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	1340 x 380 x 210 (52.8 x 15 x 8.3)
Shipping Weight	kg (lb)	19.4 (42.8)
Connector type		8x 4.3-10 female + 2 AISG 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		DC Ground
Survival/Rated Wind Velocity	km/h	200 (150)
Wind Load @Rated Wind Front	N	203
Wind Load @Rated Wind Side	N	139
Wind Load @Rated Wind Rear	N	241

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXV9TY10AB_43-C-I20	Internal RET(ACU-I20-B1)	APM50-B1	50-110mm	19.4 Kg



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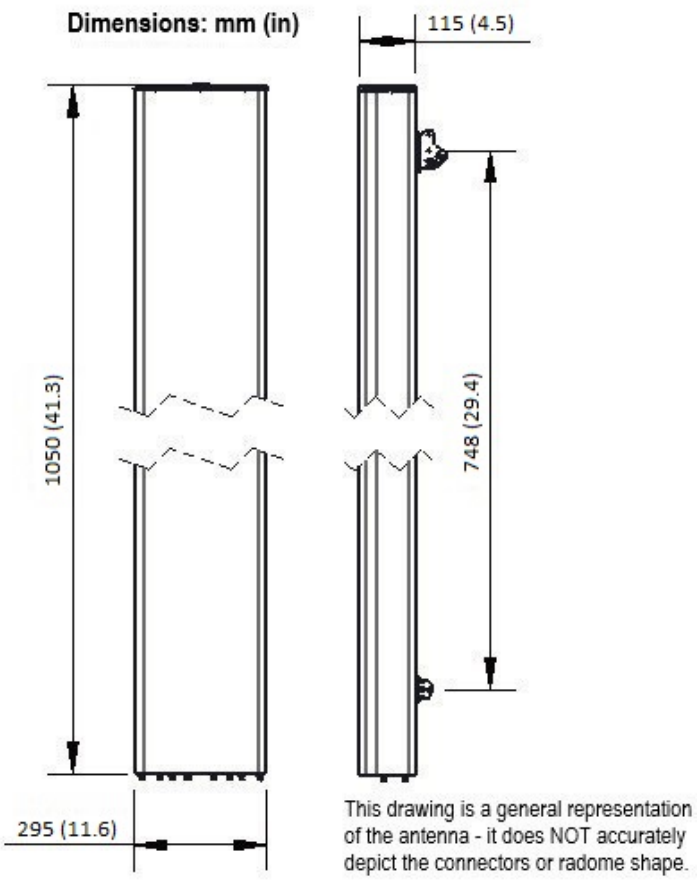

External Document Links

APM50_Series_Installation_Instructions

Notes

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- Horizontal dipole column spacing: 42mm.
- For additional mounting information please click "External Document Links".

- **Radiating patterns:** Request pattern files

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