

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	≤ 0.7	
Coupling phase accuracy	deg	≤ 5	
VSWR	-	≤ 1.5	
Maximum Power	Watt	50	
ISO co-polor @2-6 deg tilt	dB	≥ 20	
ISO co-polor @7-12 deg tilt	dB	≥ 25	
ISO cross-polor @2-6 deg tilt	dB	≥ 25	
ISO cross-polor @7-12 deg tilt	dB	≥ 27	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Unit Beam (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Gain Typical	dBi	16.1	16.9
Gain Over all Tilts	dBi	15.6 +/- 0.5	15.9 +/- 1
Azimuth Beamwidth 3dB	Deg	70.6 +/- 10.9	64 +/- 7.5
Elevation Beamwidth 3dB	Deg	6.1 +/- 0.5	6 +/- 0.4
Cross Polar Discrimination at Boresight	dB	21	20
Cross Polar Discrimination over Sector	dB	8	7
F/B at +/-30deg Total Power	dB	18	19
First Upper Side Lobe Suppression	dB	17	19
Electrical Downtilt	Deg	2 to 12	
VSWR	-	1.5	

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Broadcasting Beam (3300-3800 MHz)	
Frequency Band	MHz	3300-3600	3600-3800
Gain Typical	dBi	16.9	16.6
Gain Over all Tilts	dBi	15.9 +/- 1	16.1 +/- 0.5
Azimuth Beamwidth 3dB	Deg	67 +/- 5.9	57.5 +/- 6.3
Elevation Beamwidth 3dB	Deg	6.1 +/- 0.5	5.9 +/- 0.5
F/B at +/-30deg Total Power	dB	20	21
First Upper Side Lobe Suppression	dB	17.4	19
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	20.8 +/- 0.5	20.4 +/- 0.5
Azimuth Beamwidth 3dB	Deg	19.8 +/- 0.5	18.7 +/- 0.5
Elevation Beamwidth 3dB	Deg	6.1 +/- 0.5	5.9 +/- 0.5
F/B at +/-30deg Total Power	dB	23	24
First Upper Side Lobe Suppression	dB	18.6	20
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)	1000 x 295 x 115 (39.4 x 11.6 x 4.5)
Weight (Antenna Only)	kg (lb)	10.5 (23.1)
Weight (Mounting Hardware only)	kg (lb)	4.5 (9.9)
Packing size- HxWxD	mm (in)	1280 x 380 x 210 (50.4 x 15 x 8.3)
Shipping Weight	kg (lb)	19 (41.9)
Connector type		2x Cluster connectors MQ4/MQ5 + 2 AISG connectors (1 male, 1 female)
Radome Material / Color		ASA / 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	218
Wind Load @Rated Wind Side	N	224
Wind Load @Rated Wind Rear	N	253

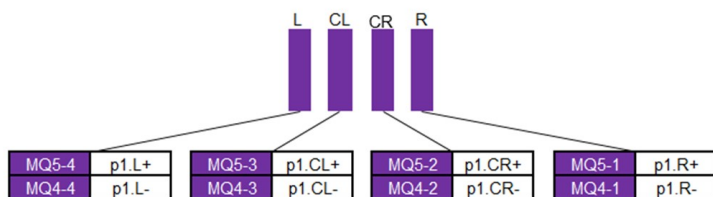
ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight
APXVTY10AB_MQ-C-I20	Internal RET(ACU-I20-B1)	APM50-B1	50-110mm	19.0 Kg

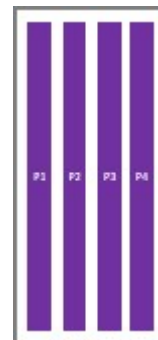
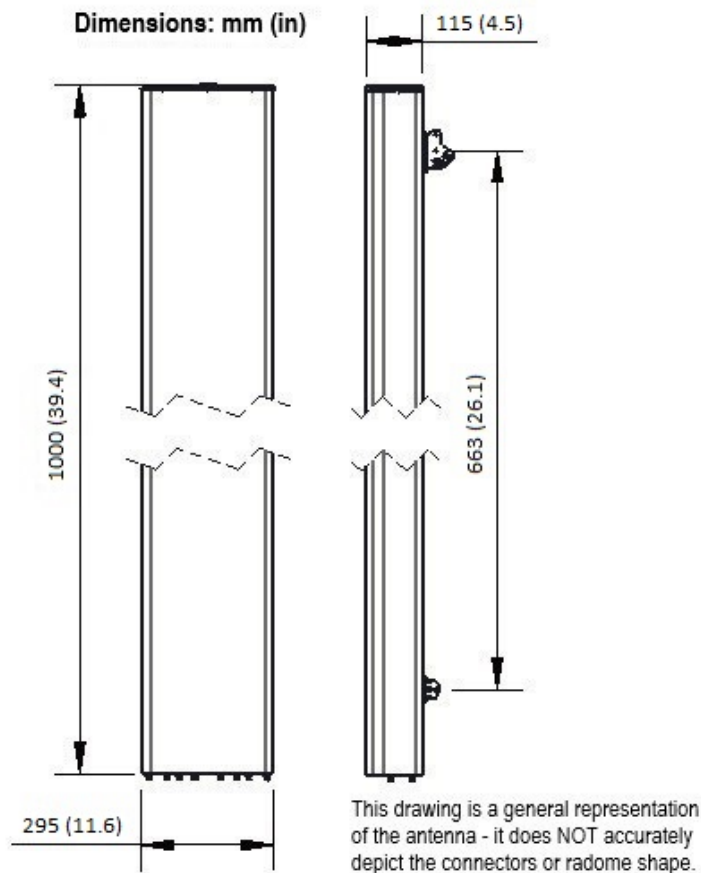


APXVTY10AB_MQ-C-I20

TDD 8T8R Antenna, X-Pol, 1.0m, 3300-3800MHz, 65deg unit beam, Integrated RET, MQ4/MQ5 connectors



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



External Document Links

[APM50_Series_Installation_Instructions](#)

Notes

- All electrical parameters are compliant with BASTA NGMN 11.1 requirements.
- Horizontal dipole column spacing: 55mm.
- MQ4/MQ5 cluster connectivity follow NGMN.
- For additional mounting information please click "External Document Links".
- **Radiating patterns:** [Request pattern files](#)