PRODUCT DATASHEET

APXV9TY10AEB_43-C-I20, -A-I20

TDD 8T8R Antenna, X-Pol, 1.0m, 3300-4200MHz, 90deg unit beam, Integrated RET

FEATURES / BENEFITS

- Beamforming applications in the 4.2GHz band (3300-4200MHz)
- 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
- Optional with Direct Pipe no tilt mounting hardware (Model name Suffix -A-I20)
- Compliant with AISG V2.0 and 3GPP

Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Cal.board and S parameter (3300-4200 MHz)		
Frequency Band	MHz	3300-3600	3600-3800	3800-4200
Coupling between cal. Port to input port	dB	-26+/-2		
Coupling amplitude accuracy	dB	≤ 0.8		
Coupling phase accuracy	deg	≤ 8		
VSWR	-	≤ 1.5		
Maximum Power	Watt	50		
ISO co-polor	dB	20		
ISO cross-polor	dB	25		

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Unit Beam (3300-4200 MHz)		
Frequency Band	MHz	3300-3600	3600-3800	3800-4200
Gain Typical	dBi	15.8	16.1	16.3
Gain Over all Tilts	dBi	15.2 +/- 0.6	15.5 +/- 0.6	15.4 +/- 0.9
Azimuth Beamwidth 3dB	Deg	93.5 +/- 11.1	89.1 +/- 9	85.3 +/- 10.6
Elevation Beamwidth 3dB	Deg	5.7 +/- 0.5	5.4 +/- 0.5	5.2 +/- 0.6
Cross Polar Discrimination at Boresight	dB	18.4	17.5	18.7
Cross Polar Discrimination over Sector	dB	13.6	12.5	8.2
F/B at +/-30deg Total Power	dB	19.1	18.8	18.6
First Upper Side Lobe Suppression	dB	15	14.8	16.8
Electrical Downtilt	Deg	2 to 12		
VSWR	-	1.5		

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ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Broadcasting Beam (3300-4200 MHz)		
Frequency Band	MHz	3300-3600	3600-3800	3800-4200
Gain Typical	dBi	17.8	18.3	17.8
Gain Over all Tilts	dBi	17.3 +/- 0.5	17.6 +/- 0.7	16.7 +/- 1.1
Azimuth Beamwidth 3dB	Deg	55.1 +/- 6.3	55.5 +/- 4.7	55.3 +/- 4.2
Elevation Beamwidth 3dB	Deg	5.6 +/- 0.5	5.3 +/- 0.4	5.2 +/- 0.7
F/B at +/-30deg Total Power	dB	22.3	21.7	19.7
First Upper Side Lobe Suppression	dB	14.6	12.3	14.8
Electrical Downtilt	Deg	2 to 12		
VSWR	-	1.5		

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Radiation Parameter - Working Beam (3300-4200 MHz)		
Frequency Band	MHz	3300-3600	3600-3800	3800-4200
Gain Typical	dBi	20.8	20.8	20.7
Gain Over all Tilts	dBi	20.4 +/- 0.4	20.1 +/- 0.7	19.8 +/- 0.9
Azimuth Beamwidth 3dB	Deg	26 +/- 1.4	24.1 +/- 0.9	22.2 +/- 1.5
F/B at +/-30deg Total Power	dB	28.5	25.9	24.6
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)	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

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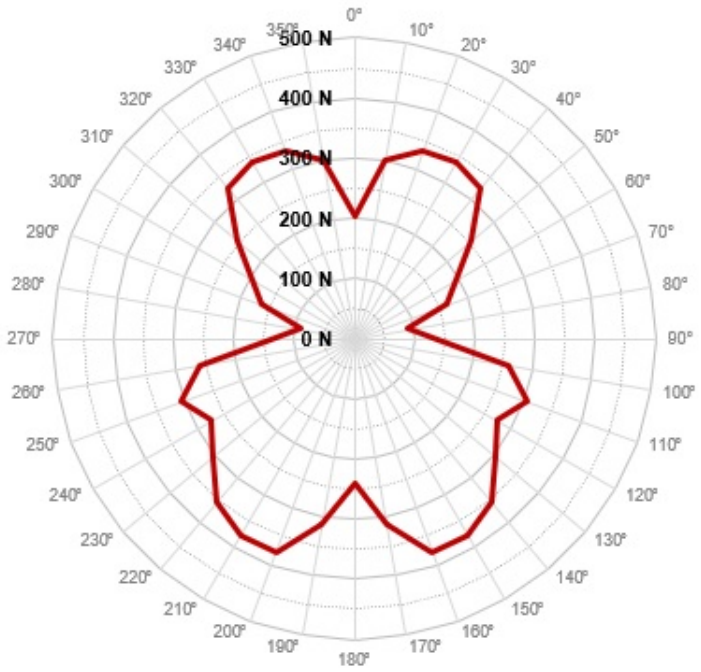
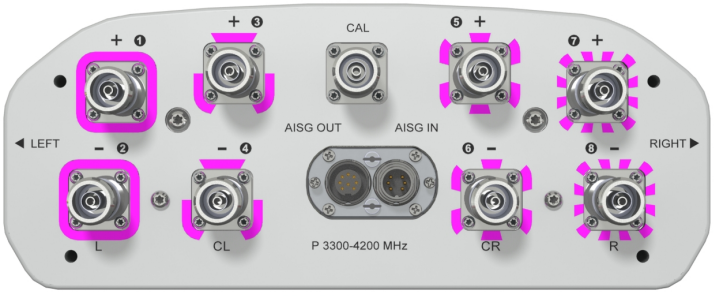
ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Shipping Weight kg(lb)	Mounting Hardware Weight kg(lb)
APXV9TY10AEB_43-C-I20	Internal RET(ACU-I20-B1)	APM50-B1	50-110mm	19.0 (41.9)	4.5 (9.9)
APXV9TY10AEB_43-A-I20	Internal RET(ACU-I20-B1)	APM50-B1N (Direct Pipe no tilt)	50-110mm	17.9 (39.5)	3.4 (7.5)



Rated Wind Speed, Km/h	150
Wind Load Frontal, Resultant, N	203
Wind Load Side, Resultant, N	139
Wind Load Rear, Resultant, N	241
Maximum Wind Load, Resultant, N	379
Maximum Wind Load, Drag Force, N	342



Port	Array	Frequency	RET	AISG RET UID
1	P1	3300-4200 MHz	P1	RFxxxxxxxxxx-P1
2				
3				
4				
5				
6				
7				
8				

NOTE: RET motors will tilt one at a time, not simultaneously

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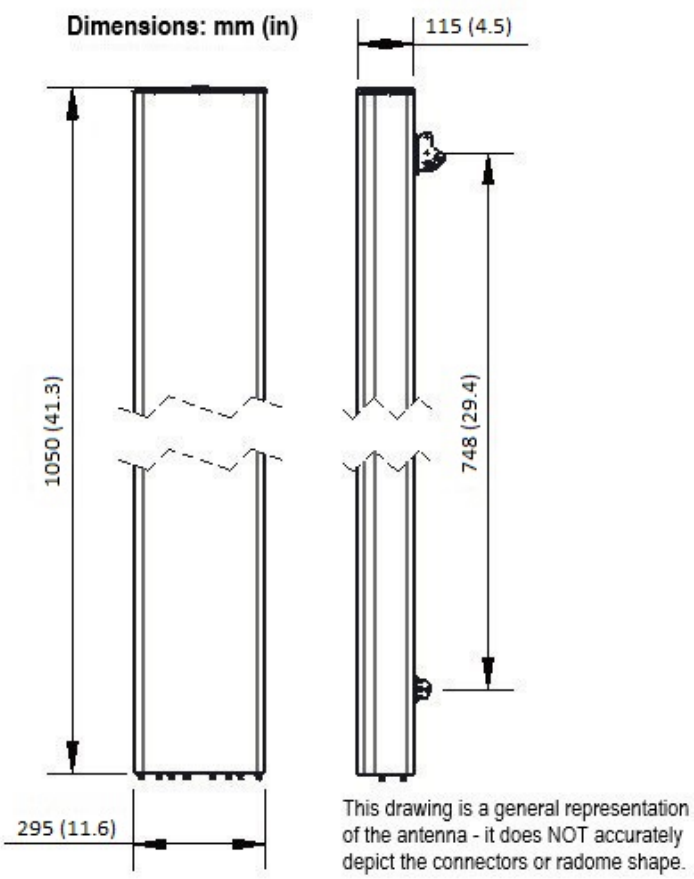

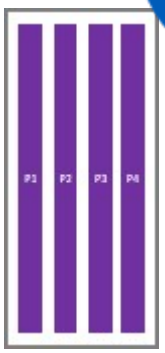

External Document Links

APM50_Series_Installation_Instructions

Notes

- All electrical parameters are compliant with BASTA NGMN 12 requirements.
- Horizontal dipole column spacing: 42mm.
- For additional mounting information please click "External Document Links".

- **Radiating patterns:** Request pattern files