APXV9TY10AEB_43-C-I20
APXV9TY10AEB_43-A-I20

Features

- Beamforming applications in the 4.2GHz band (3300-4200 MHz)
- 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 replacable 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

PRODUCT OVERVIEW					
	Frequency Range (MHz)	TDD 8T8R			
		(4x) 3300-4200			
	Array	■ P1	■ P2	■ P3	■ P4
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	90° Unit Beam			
	Electrical Downtilt	2-12°			
	Dimensions	1050 x 295 x 115 mm (41.3 x 11.6 x 4.5 in)			

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
APXV9TY10AEB_43-C-I20	ACU-I20-B1 RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3)	19.0 kg (41.9 lbs)	4.5 kg (9.9 lbs)
APXV9TY10AEB_43-A-I20	ACU-I20-B1 RET Included	APM50-B1N Direct Pipe No Tilt Mounting Kit Included	50-110 mm (2.0-4.3)	17.9 kg (39.5 lbs)	3.4 kg (7.5 lbs)

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ELECTRICAL SPECIFICATIONS		Cal. Board and S Parameter		
Frequency Range	MHz	3300-4200		
	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	degrees	≤ 8°		
VSWR	---	≤ 1.5		
Maximum Power	Watts	50 W		
ISO Co-Polar	dB	≥ 20		
ISO Cross-Polar	dB	≥ 25		

■ P1 ■ P2 ■ P3 ■ P4

ELECTRICAL SPECIFICATIONS			Unit Beam		
Frequency Range		MHz	(4x) 3300-4200		
		MHz	3300-3600	3600-3800	3800-4200
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.2 ± 0.6	15.5 ± 0.6	15.4 ± 0.9
	Max Gain	dBi	15.8	16.1	16.3
Azimuth Beamwidth (3 dB)		degrees	93.5° ± 11.1°	89.1° ± 9.0°	85.3° ± 10.6°
Elevation Beamwidth (3 dB)		degrees	5.7° ± 0.5°	5.4° ± 0.5°	5.2° ± 0.6°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR		---	1.5:1		
Front-to-Back Ratio, Total Power, ± 30°		dB	19.1	18.8	18.6
First Upper Side Lobe		dB	15.0	14.8	16.8
Cross-Pol Over Sector		dB	13.6	12.5	8.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.4	17.5	18.7

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ELECTRICAL SPECIFICATIONS			Broadcasting Beam		
Frequency Range		MHz	3300-4200		
		MHz	3300-3600	3600-3800	3800-4200
Polarization		---	±45°		
Gain	Over all Tilts	dBi	17.3 ± 0.5	17.6 ± 0.7	16.7 ± 1.1
	Max Gain	dBi	17.8	18.3	17.8
Azimuth Beamwidth (3 dB)		degrees	55.1° ± 6.3°	55.5° ± 4.7°	55.3° ± 4.2°
Elevation Beamwidth (3 dB)		degrees	5.6° ± 0.5°	5.3° ± 0.4°	5.2° ± 0.7°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR		---	1.5:1		
Front-to-Back Ratio, Total Power, ± 30°		dB	22.3	21.7	19.7
First Upper Side Lobe		dB	14.6	12.3	14.8

ELECTRICAL SPECIFICATIONS			Working Beam		
Frequency Range		MHz	3300-4200		
		MHz	3300-3600	3600-3800	3800-4200
Polarization		---	±45°		
Gain	Over all Tilts	dBi	20.4 ± 0.4	20.1 ± 0.7	19.8 ± 0.9
	Max Gain	dBi	20.8	20.8	20.7
Azimuth Beamwidth (3 dB)		degrees	26.0° ± 1.4°	24.1° ± 0.9°	22.2° ± 1.5°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR		---	1.5:1		
Front-to-Back Ratio, Total Power, ± 30°		dB	28.5	25.9	24.6

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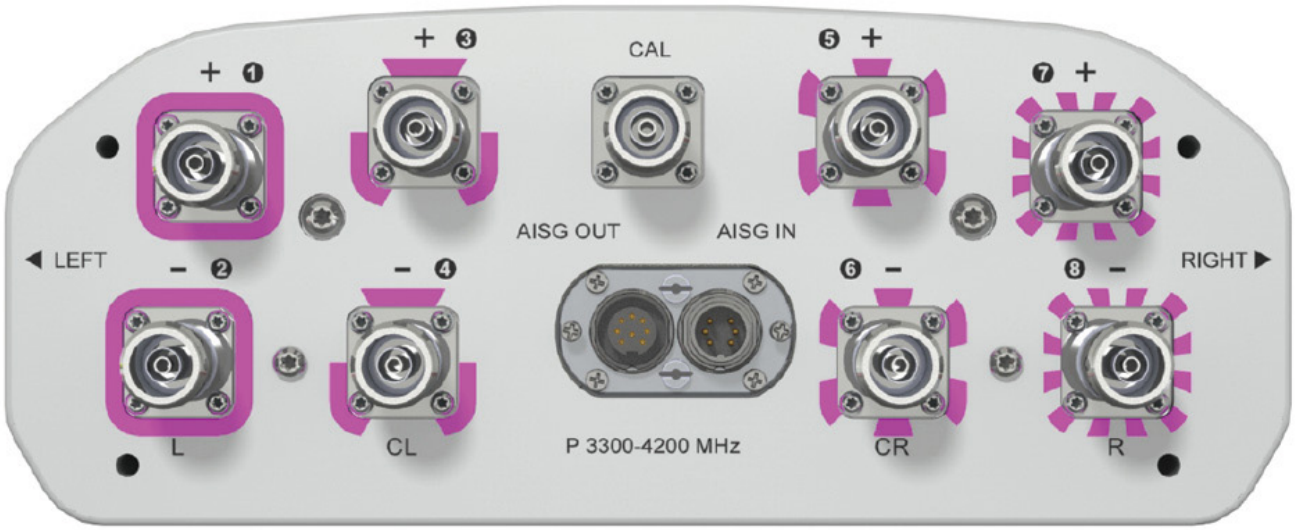
BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
P1	3300-4200 MHz	1-2	(2x) 4.3-10 Female	P1	RFxxxxxxxxxx-P1
P2	3300-4200 MHz	3-4	(2x) 4.3-10 Female		
P3	3300-4200 MHz	5-6	(2x) 4.3-10 Female		
P4	3300-4200 MHz	7-8	(2x) 4.3-10 Female		

The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length		mm (in)	1050 (41.3)
Width		mm (in)	295 (11.6)
Depth		mm (in)	115 (4.5)
Net Weight - Antenna Only		kg (lbs)	11.9 (26.2)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	203 (46)
	Side	N (lbf)	139 (31)
	Rear	N (lbf)	241 (54)
	Maximum	N (lbf)	379 (85)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(8x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom
Radome Color		---	Light Grey RAL7035
Radome Material		---	Fiberglass
Lightning Protection		---	DC Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in)	1340 x 380 x 210 (52.8 x 15.0 x 8.3)

ENVIRONMENTAL SPECIFICATIONS

Environmental Standard	---	ETS 300 019
Operating Temperature	degrees	-40° to +60° C (-40° to +140° F)
Product Environmental Compliance	---	Product is RoHS Compliant

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ACCESSORIES Accessories may be ordered separately unless otherwise indicated.

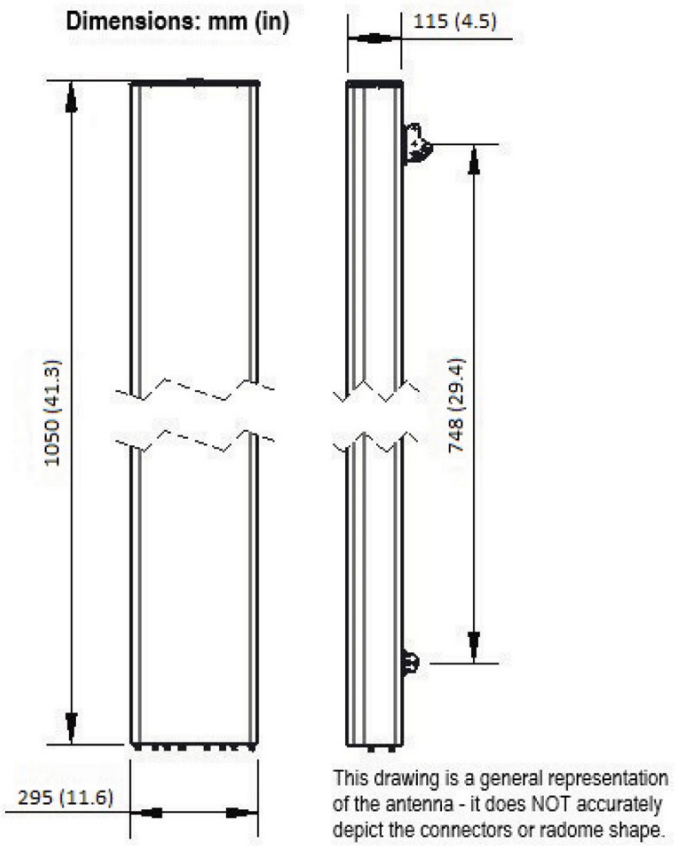
ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) *Refer to ordering options*	APM50-B1	4.5 kg (9.9 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) *Refer to ordering options*	APM50-B1N	3.4 kg (7.5 lbs)

INSTALLATION Please read all installation notes before installing product.

	Always attach the antenna using all mounting points.
	Do not install antenna with the connectors facing upwards.

EXTERNAL DOCUMENT LINKS

APM50 Mounting Kit Series Installation Instructions



NOTES

Specifications follow BASTA guidelines.

Horizontal dipole column spacing: 42mm.

For additional mounting information, please check **External Document Links**.

For Radiating Patterns: Request pattern files