

APXV9TY10AB_43-C-I20

Features

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

- Beamforming applications in the 3.5GHz band (3300-3800 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
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	TDD 8T8R			
		3300-3800			
	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
APXV9TY10AB_43-C-I20	ACU-I20-B1 Integrated RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3)	19.4 kg (43 lbs)



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ELECTRICAL SPECIFICATIONS

Cal. Board and S Parameter

Frequency Range	MHz	3300-3800	
	MHz	3300-3600	3600-3800
Coupling Between Cal. Port to Input Port	dB	-26 ± 2	
Coupling Amplitude Accuracy	dB	≤ 1.0	
Coupling Phase Accuracy	degrees	≤ 10°	
VSWR	---	≤ 1.5	
Maximum Power	Watts	50 W	
ISO Co-Polar	dB	≥ 19	
ISO Cross-Polar	dB	≥ 24	

ELECTRICAL SPECIFICATIONS

■ P1 ■ P2 ■ P3 ■ P4
Unit Beam

Frequency Range	MHz	(4x) 3300-3800		
	MHz	3300-3600	3600-3800	
Polarization	---	±45°		
Gain	Over all Tilts	dBi	16.3 ± 0.6	16.2 ± 0.6
	Max Gain	dBi	16.9	16.8
Azimuth Beamwidth (3 dB)	degrees	88.6° ± 9.5°	84.8° ± 8.1°	
Elevation Beamwidth (3 dB)	degrees	5.7° ± 0.4°	5.4° ± 0.3°	
Electrical Downtilt	degrees	2-12°		
Impedance	Ohms	50Ω		
VSWR	---	1.5:1		
Front-to-Back Ratio, Total Power, ± 30°	dB	21.6	21.5	
First Upper Side Lobe	dB	16.9	14.6	
Cross-Pol Over Sector	dB	12.0	11.7	
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)	dB	18.0	16.8	

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ELECTRICAL SPECIFICATIONS

Broadcasting Beam

Frequency Range		MHz	3300-3800	
		MHz	3300-3600	3600-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	17.0 ± 0.6	17.0 ± 0.6
	Max Gain	dBi	17.6	17.6
Azimuth Beamwidth (3 dB)		degrees	62.2° ± 15.3°	59.1° ± 5.7°
Elevation Beamwidth (3 dB)		degrees	6.2° ± 0.7°	5.9° ± 0.5°
Electrical Downtilt		degrees	2-12°	
Impedance		Ohms	50Ω	
VSWR		---	1.5:1	
Front-to-Back Ratio, Total Power, ± 30°		dB	20.6	21.6
First Upper Side Lobe		dB	12.8	17.0
Cross-Pol Over Sector		dB	13.7	13.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21.2	25.4

ELECTRICAL SPECIFICATIONS

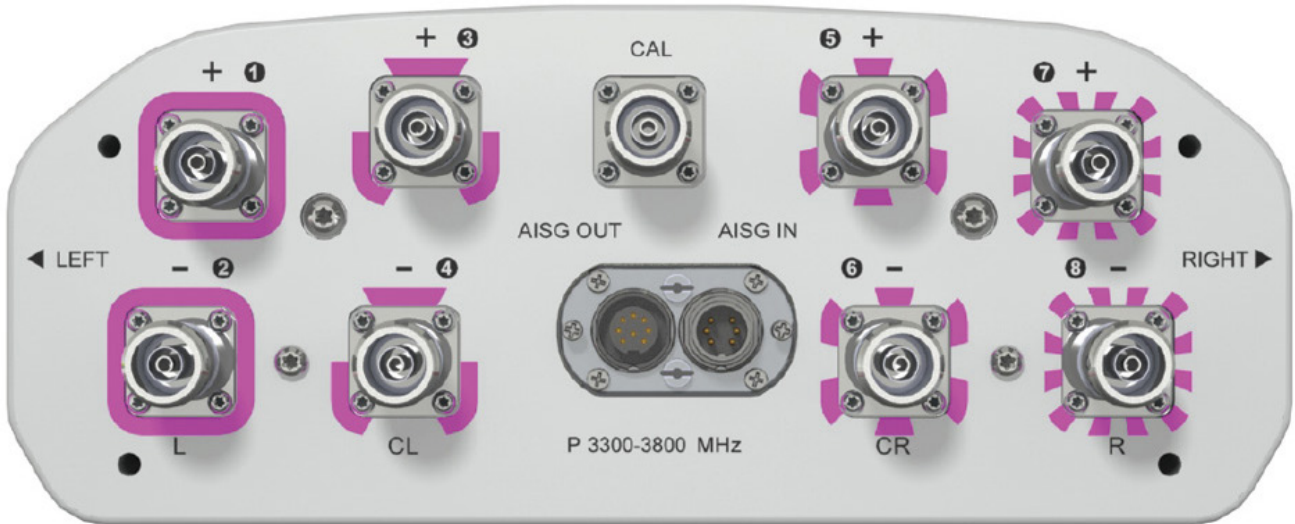
Working Beam

Frequency Range		MHz	3300-3800	
		MHz	3300-3600	3600-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	20.7 ± 0.6	20.5 ± 0.4
	Max Gain	dBi	21.3	20.9
Azimuth Beamwidth (3 dB)		degrees	24.9° ± 1.0°	23.5° ± 0.6°
Elevation Beamwidth (3 dB)		degrees	6.1° ± 0.6°	5.9° ± 0.4°
Electrical Downtilt		degrees	2-12°	
Impedance		Ohms	50Ω	
VSWR		---	1.5:1	
Front-to-Back Ratio, Total Power, ± 30°		dB	24.9	23.8
First Upper Side Lobe		dB	15.6	19.1
Cross-Pol Over Sector		dB	8.3	3.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	23.1	25.6

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BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ P1	3300-3800 MHz	1-2	(2x) 4.3-10 Female	P1	RFxxxxxxxxxx-2P1
■ P2	3300-3800 MHz	3-4	(2x) 4.3-10 Female		
■ P3	3300-3800 MHz	5-6	(2x) 4.3-10 Female		
■ P4	3300-3800 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)
Net Weight - Mounting Hardware Only	kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 203 (46)
	Side	N (lbf) 139 (31)
	Rear	N (lbf) 241 (54)
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)
	Shipping Weight	kg (lbs) 19.4 (42.8)

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) <i>Shipped with antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

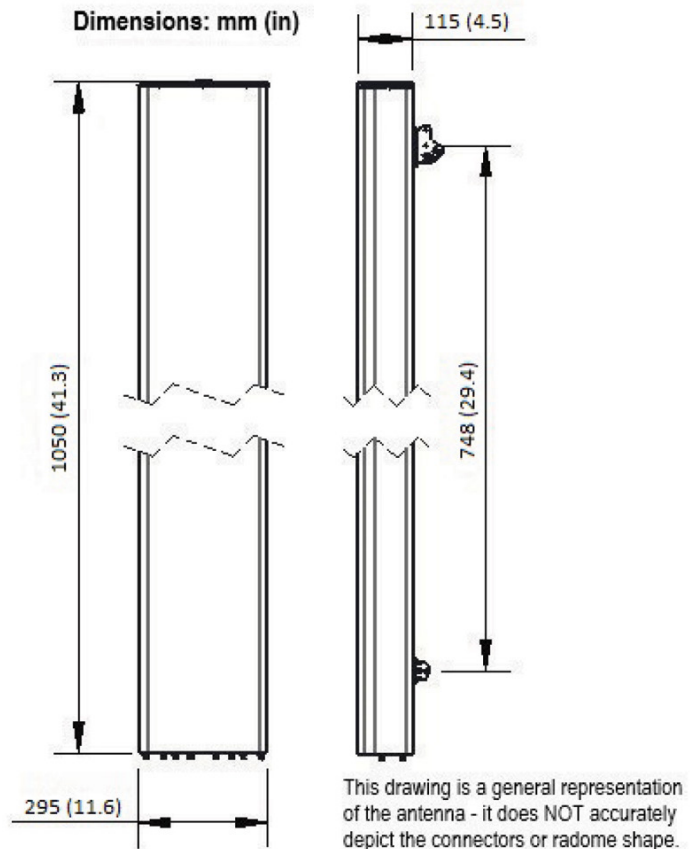
INSTALLATION Please read all installation notes before installing product.



- 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](#)

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