APXVTM14AB_N-C-I20

Features

- Multiple individual beam control (Unit Beam)
- High-powered beam option (Broadcast 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

PRODUCT OVERVIEW		TDD			
	Frequency Range (MHz)	(8T8R) 2515-2675			
	Array	Y1			
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
		N-Type Female			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	90° Unit Beam			
	Electrical Downtilt	2-12°			
	Dimensions	1495 x 350 x 200 mm (58.9 x 13.8 x 7.9 in)			

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVTM14AB_N-C-I20	ACU-I20-B1 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	28 kg (61.7 lbs)

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ELECTRICAL SPECIFICATIONS		Y1 Cal. Board and S Parameter
Frequency Range	MHz	2515-2675
Coupling between Cal. Port to Input Port	dB	-26 ± 2
Coupling Amplitude Accuracy	dB	≤ 0.9
Coupling Phase Accuracy	degrees	≤ 7°
VSWR	---	≤ 1.5
Maximum Power	Watts	80 W
ISO Co-Polar at 2-6° Tilt	dB	≥ 19
ISO Co-Polar at 7-12° Tilt	dB	≥ 25
ISO Cross-Polar at 2-6° Tilt	dB	≥ 24
ISO Cross-Polar at 7-12° Tilt	dB	≥ 25

ELECTRICAL SPECIFICATIONS			Y1 Radiation Parameter - Unit Beam
Frequency Range		MHz	2515-2675
Polarization		---	±45°
Gain	Over all Tilts	dBi	16.4 ± 0.4
	Max Gain	dBi	16.8
Azimuth Beamwidth (3 dB)		degrees	73.4° ± 6.3°
Elevation Beamwidth (3 dB)		degrees	5.1° ± 0.3°
Electrical Downtilt		degrees	2-12°
Impedance		Ohms	50Ω
VSWR (Return Loss)		---	1.5:1 (-14 dB)
Front-to-Back Ratio, Total Power, ± 30°		dB	23.4
First Upper Side Lobe Suppression		dB	17.9
Cross-Pol Discrimination Over Sector		7.6	8.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.6

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ELECTRICAL SPECIFICATIONS			Y1 Radiation Parameter - Broadcasting Beam
Frequency Range		MHz	2515-2675
Polarization		---	±45°
Gain	Over all Tilts	dBi	14.1 ± 1.4
	Max Gain	dBi	15.5
Azimuth Beamwidth (3 dB)		degrees	39.6° ± 11.7°
Elevation Beamwidth (3 dB)		degrees	5.3° ± 0.5°
Electrical Downtilt		degrees	2-12°
Impedance		Ohms	50Ω
VSWR (Return Loss)		---	1.5:1 (-14 dB)
Front-to-Back Ratio, Total Power, ± 30°		dB	24.6
First Upper Side Lobe Suppression		dB	15.7

ELECTRICAL SPECIFICATIONS			Y1 Radiation Parameter - Working Beam
Frequency Range		MHz	2515-2675
Polarization		---	±45°
Gain	Over all Tilts	dBi	21.1 ± 0.8
	Max Gain	dBi	21.9
Azimuth Beamwidth (3 dB)		degrees	30.4° ± 5.6°
Elevation Beamwidth (3 dB)		degrees	5.1° ± 0.3°
Electrical Downtilt		degrees	2-12°
Impedance		Ohms	50Ω
VSWR (Return Loss)		---	1.5:1 (-14 dB)
Front-to-Back Ratio, Total Power, ± 30°		dB	29.5
First Upper Side Lobe Suppression		dB	15.5

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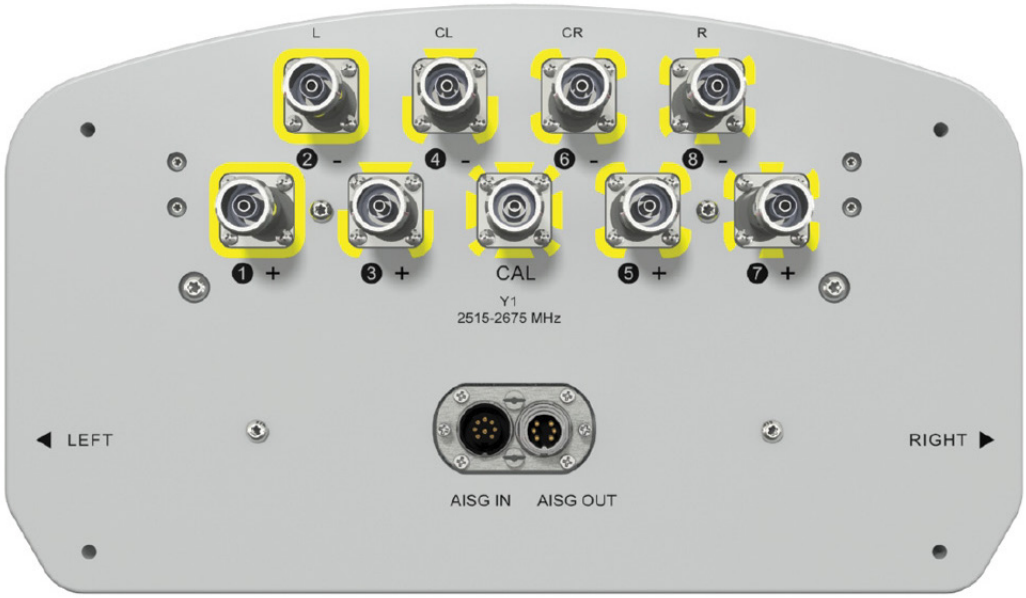
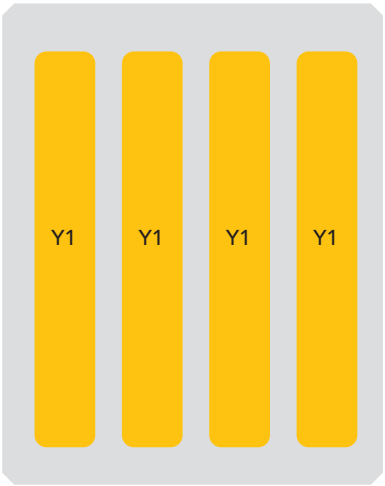
BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
Y1	2515-2675 MHz	1-2	(2x) N-Type Female	Y1	RFxxxxxxxxxxx-Y1
	2515-2675 MHz	3-4	(2x) N-Type Female		
	2515-2675 MHz	5-6	(2x) N-Type Female		
	2515-2675 MHz	7-8	(2x) N-Type Female		



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length		mm (in)	1495 (58.9)
Width		mm (in)	350 (13.8)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	19 (41.9)
Net Weight - Mounting Hardware Only		kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	597 (134)
	Side	N (lbf)	293 (66)
	Rear	N (lbf)	672 (151)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(8x) N-Type Female, (1x) Calibration Board Connector, (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)	1750 x 445 x 295 (68.9 x 17.5 x 11.6)
	Shipping Weight	kg (lbs)	28 (61.7)

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) *Shipped with antenna*	APM50-B1	4.5 kg (9.9 lbs)

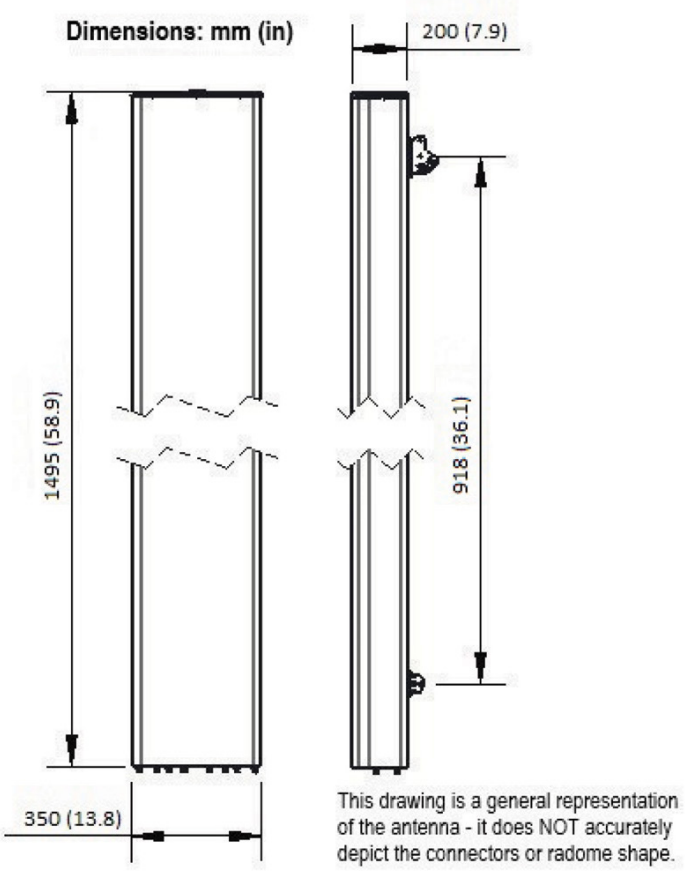
INSTALLATION

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.

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

For Radiating Patterns: Request pattern files