

APXVA13X_43-C-A20



Features

This antenna provides a two port platform for advanced use in 600MHz, 700MHz, and 800MHz deployment scenarios in a high quality package design built to withstand harsh environments.

- Narrow 12-inch radome for difficult zoning sites
- Superior elevation performance across the entire electrical downtilt range
- High gain performance for optimum site coverage, reduced power and signal integrity
- ACU-A20-SR field replaceable (integrated) AISG RET motor

PRODUCT OVERVIEW	Frequency Range (MHz)	617-894
	Array	■ R1
	Connector	1-2
		2 PORTS
	Polarization	XPOL
	Azimuth Beamwidth (avg)	65°
	Electrical Downtilt	5-18°
	Dimensions	1380 x 303 x 202 mm (54.3 x 11.9 x 8.0 in)

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVA13X_43-C-A20	ACU-A20-SR Semi-Internal Field Replacable RET	APM40-2 Beam Tilt Kit	60-120 mm (2.4-4.7 in)	20 kg (44 lbs)



Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

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ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	617-894		
		MHz	617-698	698-806	806-894
Polarization		---	±45°		
Gain	Over all Tilts	dBi	12.6 ± 0.4	13.3 ± 0.4	13.8 ± 0.3
	Max Gain	dBi	13.0	13.7	14.1
Azimuth Beamwidth (3 dB)		degrees	71° ± 1°	68° ± 2°	63° ± 2°
Elevation Beamwidth (3 dB)		degrees	20.6° ± 1.3°	17.9° ± 1.6°	15.3° ± 0.9°
Electrical Downtilt		degrees	5-18°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation		dBc	-153 (3rd Order for 2x20 W Carriers)		
Front-to-Back Ratio, Total Power, ± 30°		dB	23	24	24
Upper Side Lobe Suppression, Peak to +20°		dB	22	22	17
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21	23	25
Cross Polar Discrimination (XPD) at ± 60°		dB	10	12	8
Maximum Effective Power Per Port		Watts	300 W		
Cross-Polar Isolation		dB	25		

RET ACTUATOR

Frequency		MHz	617-894
Model Number		---	ACU-A20-SR
Number of RET Actuators		---	1
RET ID		---	R1
Input Voltage		Vdc	10-30V
Power Consumption	Idle State, maximum	Watts	0.5W @ 10V, 1.5W @ 30V
	Normal Conditions, maximum	Watts	4W @ 10V, 9W @ 30V
Protocol		---	3GPP / AISG v2.0
Tilt Change Duration		---	Less than 15 seconds, typical (may vary depending on antenna type and outdoor temperature)
Precision		degrees	± 0.1°
Tilt Change Capability		---	18,000 minimum
RET Interface		---	One pair AISG Male and Female
Field Replaceable Unit		---	Yes
Location		---	Semi-internal

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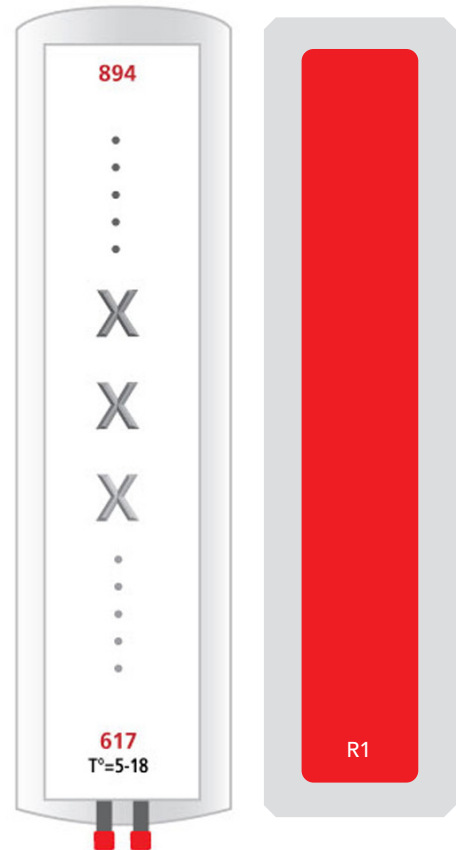
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BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	617-894 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxxx-2R1



The illustrations are not shown to scale.

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MECHANICAL SPECIFICATIONS

Length	mm (in)	1380 (54.3)
Width	mm (in)	303 (11.9)
Depth	mm (in)	202 (8.0)
Net Weight - Antenna Only	kg (lbs)	12.1 (26.7)
Net Weight - Mounting Hardware Only	kg (lbs)	3.9 (8.6)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 553 (124)
	Side	N (lbf) 484 (109)
	Rear	N (lbf) 730 (164)
Survival Wind Speed	km/h (mph)	240 (150)
Connector Type	---	(2x) 4.3-10 Long Neck Female at Bottom (2x) AISG Connectors (1 Male, 1 Female)
Adjustment Mechanism	---	ACU-A20-SR Integrated RET Solution AISG compliant (Field Replaceable), Manual Override, External Tilt Indicator
Radome Color	---	Light Grey RAL7035
Radome Material	---	ASA
Lightning Protection	---	Direct Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in) 1500 x 360 x 360 (59.0 x 14.2 x 14.2)
	Shipping Weight	kg (lbs) 20 (44.1)

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 60-120 mm (2.4-4.7 in) <i>Shipped with antenna</i>	APM40-2	3.9 kg (8.6 lbs)

INSTALLATION

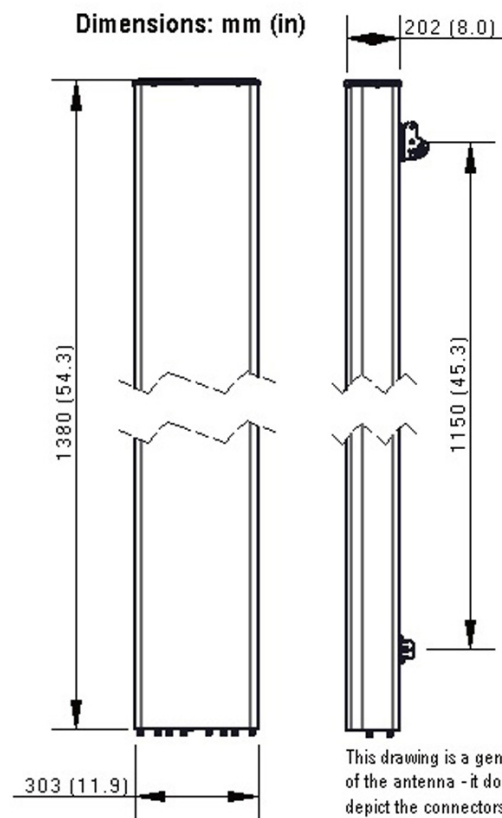
Please read all installation notes before installing product.

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

EXTERNAL DOCUMENT LINKS

[APM40 Mounting Kit Series Installation Instructions](#)

[Manual Overdrive Instructions](#)



NOTES

Specifications follow BASTA guidelines.

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

For Radiating Patterns: [Request pattern files](#)