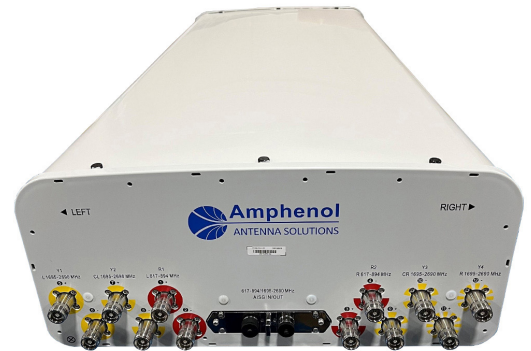


APXVAA4L18N_43-U-I20

APXVAA4L18N_43-V-I20

Features

- Narrow 499 mm radome for reduced windloading and easier zoning
- MIMO 4x4 in low-band and mid-band x2 (L/CL and RC/R)
- Integrated and field replaceable mRET
- ACU model number: ACU-X20-N3
- Compliant with AISG v2.0 and 3GPP
- Mechanical downtilt kit included
- Optional with Direct Pipe No Tilt mounting hardware (Model name suffix -V-I20)



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 617-894		(4x) 1695-2690			
	Array	■ R1	■ R2	■ Y1	■ Y2	■ Y3	■ Y4
	Connector	1-2	3-4	5-6	7-8	9-10	11-12
		4 PORTS		8 PORTS			
	Polarization	XPOL			XPOL		
	Azimuth Beamwidth (avg)	65°			65°		
	Electrical Downtilt	2-12°			2-12°		
	Dimensions	1823 x 499 x 215 mm (71.8 x 19.7 x 8.5 in)					

ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
APXVAA4L18N_43-U-I20	ACU-X20-N3 Field Replaceable RET Included	APM40-5E Beam Tilt Kit and APM40-E10T (included)	60-120 mm (2.4-4.7 in)	45.7 kg (101 lbs)	8.5 kg (19 lbs)
APXVAA4L18N_43-V-I20	ACU-X20-N3 Field Replaceable RET Included	APM40-1E Direct Pipe No Tilt and APM40-E10T (included)	60-120 mm (2.4-4.7 in)	43.5 kg (96 lbs)	6.3 kg (14 lbs)



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ELECTRICAL SPECIFICATIONS

■ R1 ■ R2

Frequency Range		MHz	(2x) 617-894		
		MHz	617-698	698-806	806-894
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.1 ± 0.7	14.6 ± 0.8	14.4 ± 0.5
	Max Gain	dBi	14.8	15.4	14.9
Azimuth Beamwidth (3 dB)		degrees	71° ± 8°	66° ± 8°	67° ± 8°
Elevation Beamwidth (3 dB)		degrees	14.1° ± 1.0°	12.9° ± 1.0°	11.4° ± 1.0°
Electrical Downtilt		degrees	2-12°		
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	17	19	20
Front-to-Back at 180° Copolar		dB	30	28	29
Upper Side Lobe Suppression, Peak to +20°		dB	21	22	21
First Upper Side Lobe		dB	19	21	22
Cross-Pol Over Sector		dB	9	6	3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17	19	18
Maximum Effective Power Per Port		Watts	300 W		
Cross Polar Isolation		dB	25	25	25
Interband Isolation		dB	20	20	20

ELECTRICAL SPECIFICATIONS

■ Y1 ■ Y2 ■ Y3 ■ Y4

Frequency Range		MHz	(4x) 1695-2690				
		MHz	1695-1880	1850-1990	1920-2200	2200-2500	2500-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.8 ± 0.9	17.4 ± 0.4	17.9 ± 0.7	18.0 ± 0.6	17.6 ± 0.7
	Max Gain	dBi	17.7	17.8	18.6	18.6	18.3
Azimuth Beamwidth (3 dB)		degrees	69° ± 9°	67° ± 6°	60° ± 8°	53° ± 8°	55° ± 5°
Elevation Beamwidth (3 dB)		degrees	5.8° ± 0.4°	5.4° ± 0.3°	4.9° ± 0.4°	4.4° ± 0.3°	4.2° ± 0.3°
Electrical Downtilt		degrees	2-12°				
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	22	22	22	22	22
Front-to-Back at 180° Copolar		dB	28	28	28	29	30
Upper Side Lobe Suppression, Peak to +20°		dB	15	16	16	15	11
First Upper Side Lobe		dB	19	20	19	19	20
Cross-Pol Over Sector		dB	7	5	2	1	2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19	18	17	18	16
Maximum Effective Power Per Port		Watts	300 W				
Cross Polar Isolation		dB	25	25	25	25	25
Interband Isolation		dB	20	20	20	20	20

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RET ACTUATOR

Frequency	MHz	617-894	1695-2690
Model Number	---	ACU-X20-N3	
Number of RET Actuators	---	1	
RET ID	---	R1	Y1 and Y2
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 AISG Male and One AISG Female	
Field Replaceable Unit	---	Yes	
Location	---	Semi-internal	

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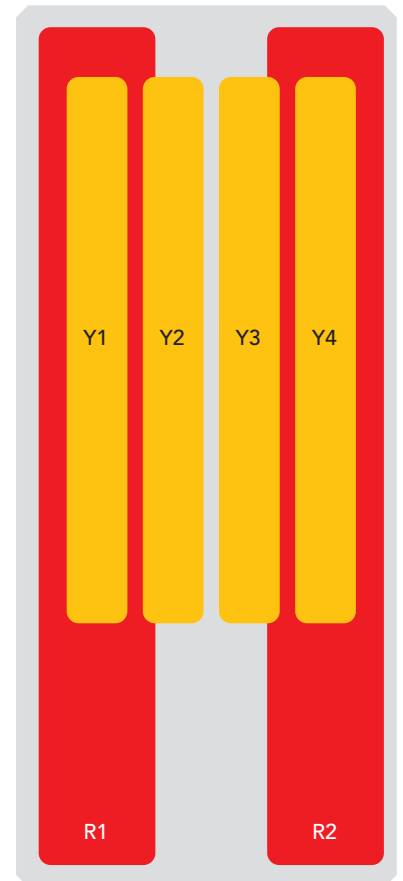
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BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	617-894 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-2R1
■ R2	617-894 MHz	3-4	(2x) 4.3-10 Female		
■ Y1	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-2Y1
■ Y2	1695-2700 MHz	7-8	(2x) 4.3-10 Female		
■ Y3	1695-2690 MHz	9-10	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-2Y2
■ Y4	1695-2690 MHz	11-12	(2x) 4.3-10 Female		



The illustration is not shown to scale.

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APXVAA4L18N_43-V-I20

MECHANICAL SPECIFICATIONS

Length	mm (in)	1823 (71.8)
Width	mm (in)	499 (19.7)
Depth	mm (in)	215 (8.5)
Net Weight - Antenna Only	kg (lbs)	31 (69)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 609 (137)
	Side	N (lbf) 572 (129)
	Rear	N (lbf) 707 (159)
	Maximum	N (lbf) 1186 (267)
Survival Wind Speed	km/h (mph)	240 (150)
Connector Type	--	(12x) 4.3-10 Female at Bottom
Radome Color	---	Light Grey RAL7035
Radome Material	---	ASA
Lightning Protection	---	Direct Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in) 2030 x 560 x 285 (79.9 x 22 x 11.2)

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 and Interface Bracket for Pole Diameter 60-120 mm (2.4-4.7 in) <i>Refer to ordering options</i>	APM40-5E and APM40-E10T	8.5 kg (19 lbs)
Direct Pipe No Tilt Bracket Kit and Interface Bracket for Pole Diameter 60-120 mm (2.4-4.7 in) <i>Refer to ordering options</i>	APM40-1E and APM40-E10T	6.3 kg (14 lbs)

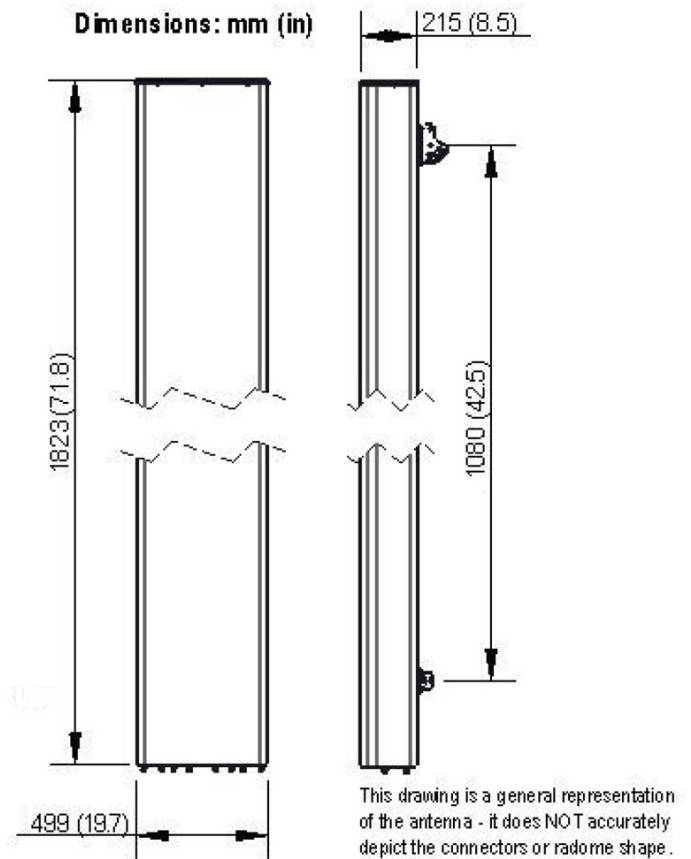
INSTALLATION Please read all installation notes before installing product.



- 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](#)



NOTES

- Specifications follow BASTA guidelines.
- For additional mounting information, please check **External Document Links**.
- For Radiating Patterns: [Request pattern files](#)

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