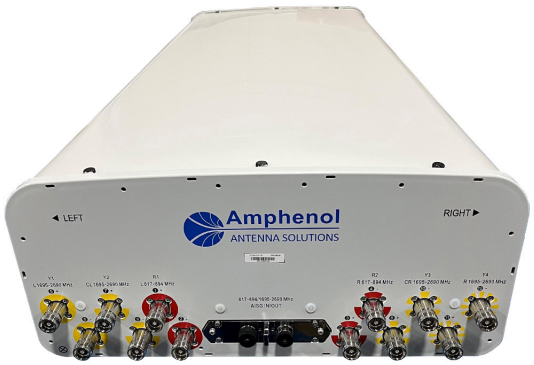
APXVAA4L24N_43-U-I20
APXVAA4L24N_43-V-I20



Features

- Narrow 499 mm radome for reduced windloading and easier zoning
- MIMO 4x4 in low-band and mid-band x2 (L/LC 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	2432 x 499 x 215 mm (95.8 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
APXVAA4L24N_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)	53.7 kg (118 lbs)	8.5 kg (19 lbs)
APXVAA4L24N_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)	51.5 kg (113 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	15.1 ± 0.7	15.5 ± 0.9	15.1 ± 0.6
	Max Gain	dBi	15.8	16.4	15.7
Azimuth Beamwidth (3 dB)		degrees	66° ± 5°	63° ± 6°	61° ± 9°
Elevation Beamwidth (3 dB)		degrees	10.2° ± 0.6°	9.4° ± 0.8°	8.5° ± 0.6°
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	18	18
Front-to-Back at 180° Copolar		dB	29	28	26
Upper Side Lobe Suppression, Peak to +20°		dB	17	17	14
First Upper Side Lobe		dB	17	17	17
Cross-Pol Over Sector		dB	8	6	4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19	20	20
Maximum Effective Power Per Port		Watts	300 W		
Cross Polar Isolation		dB	25	25	25
Interband Isolation		dB	22	24	22

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 ± 0.8	17.3 ± 0.5	18.2 ± 1.0	17.9 ± 0.7	17.7 ± 0.7
	Max Gain	dBi	17.6	17.8	19.2	18.6	18.4
Azimuth Beamwidth (3 dB)		degrees	69° ± 7°	67° ± 5°	59° ± 8°	54° ± 8°	55° ± 5°
Elevation Beamwidth (3 dB)		degrees	6.2° ± 0.5°	5.8° ± 0.3°	5.2° ± 0.4°	4.7° ± 0.3°	4.6° ± 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	24	25	24	23	23
Front-to-Back at 180° Copolar		dB	31	31	31	32	30
Upper Side Lobe Suppression, Peak to +20°		dB	17	18	19	14	12
First Upper Side Lobe		dB	20	20	21	22	21
Cross-Pol Over Sector		dB	7	5	2	1	1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18	17	16	17	16
Maximum Effective Power Per Port		Watts	300 W				
Cross Polar Isolation		dB	25	25	25	25	25
Interband Isolation		dB	25	25	25	25	25

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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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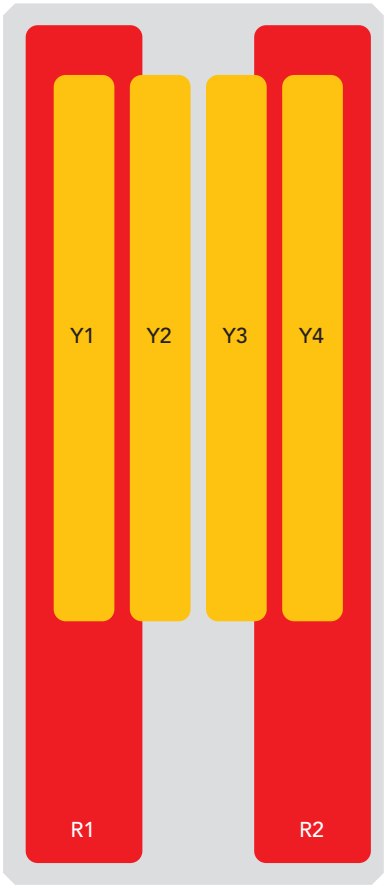
BOTTOM VIEW - LABELING

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
R2	617-894 MHz	3-4	(2x) 4.3-10 Female		
Y1	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxxx-2Y1
Y2	1695-2700 MHz	7-8	(2x) 4.3-10 Female		
Y3	1695-2690 MHz	9-10	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxxx-2Y2
Y4	1695-2690 MHz	11-12	(2x) 4.3-10 Female		



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length		mm (in)	2432 (95.8)
Width		mm (in)	499 (19.7)
Depth		mm (in)	215 (8.5)
Net Weight - Antenna Only		kg (lbs)	37 (81.6)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	816 (183)
	Side	N (lbf)	701 (158)
	Rear	N (lbf)	969 (218)
	Maximum	N (lbf)	1627 (366)
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)	2642 x 560 x 285 (104.0 x 22.0 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.

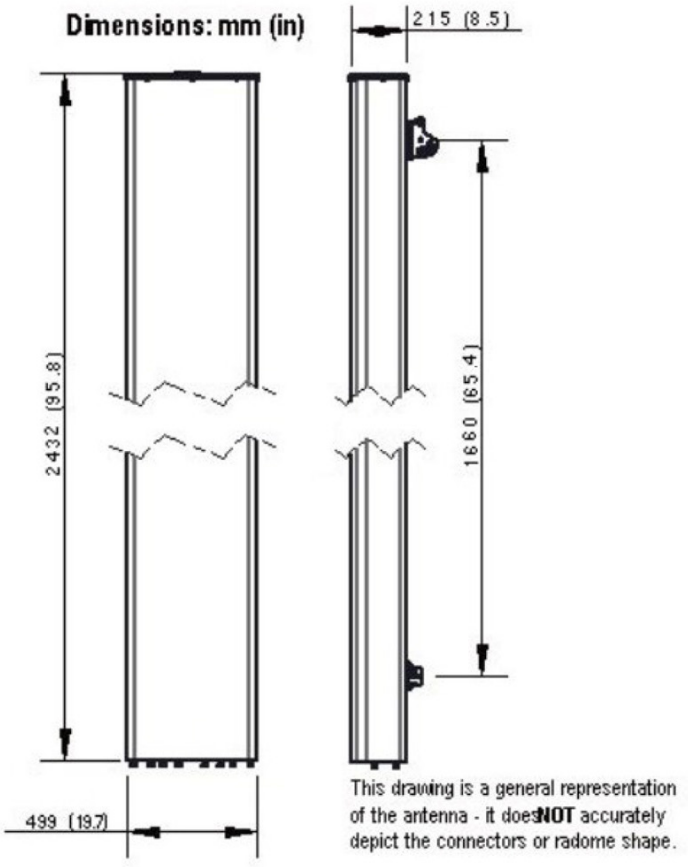
ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit and Interface Bracket for Pole Diameter 60-120 mm (2.4-4.7 in) *Refer to ordering options*	APM40-5E and APM40-E10T	8.5 kg (19 lbs)
Direct Pipe No Tilt Bracket Kit and Interface Bracket for Pole Diameter 60-120 mm (2.4-4.7 in) *Refer to ordering options*	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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