Amphenol ANTENNA SOLUTIONS

6-Port Panel Antenna

(1x) 698-960 | (2x) 1695-2690 MHz

RF X-TREME™ | 65° | 609 mm | FIXED & VARIABLE TILT

APXVBLL06-C-A20

Features

RF X-TREME™ triple band antenna. This antenna is an ideal choice for triple band site upgrades for high traffic areas. It can be used for multiple bands such as LTE 700, Digital Dividend, CDMA, GSM, DCS, UMT and LTE 2.6.

- Triple band cross-polarized with 3 arrays (6 ports), 1x 698-960 / 2x 1695-2690
- Ultra broadband design for LTE 700, LTE 800 and LTE 2600
- Variable electrical downtilt on high band
- HIgh band left and right tilt together
- Enhanced tilt range - ideal for applications in dense areas
- Enable MIMO 4x4 or 4-way RX diversity - ideal solution for LTE advanced
- Quick and easy to install - reduces installation time and costs

PRODUCT OVERVIEW				
	Frequency Range (MHz)	(1x) 698-960	(2x) 1695-2690	
	Array	R1	Y1	Y2
	Connector	1-2	3-4	5-6
		6 PORTS		
	Polarization	XPOL		
	Azimuth Beamwidth (avg)	65°	65°	65°
	Electrical Downtilt	5°	5-18°	5-18°
	Dimensions	609 x 340 x 200 mm (24.0 x 13.4 x 7.9 in)		

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	WEIGHT
APXVBLL06-C	Manual RET	APM40-6 Beam Tilt Kit Included	50-120 mm (2.0-4.7 in)	11.8 kg (26 lbs)
APXVBLL06-C-A20	External RET Included	APM40-6 Beam Tilt Kit Included	50-120 mm (2.0-4.7 in)	12.3 kg (27.1 lbs)

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ELECTRICAL SPECIFICATIONS

			R1		
Frequency Range		MHz	698-960		
		MHz	698-806	806-896	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	9.8 ± 0.5	10.3 ± 0.2	10.3 ± 0.3
	Max Gain	dBi	10.3	10.5	10.6
Azimuth Beamwidth (3 dB)		degrees	73.9° ± 5.2°	69.9° ± 2.5°	67.4° ± 2.9°
Elevation Beamwidth (3 dB)		degrees	44.6° ± 3.7°	41.1° ± 2.2°	38.8° ± 1.6°
Electrical Downtilt		degrees	5°		
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	19.1	20.1	18.5
Cross Polar Discrimination Over Sector		dB	8.6	4.3	2.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.4	18.2	17.1
Maximum Effective Power Per Port		Watts	200 W		
Cross Polar Isolation		dB	20		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS Left Array

			Y1				
Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2200	2300-2400	2400-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	12.6 ± 0.7	13.3 ± 0.4	13.6 ± 0.5	13.6 ± 0.7	14.0 ± 0.5
	Max Gain	dBi	13.3	13.7	14.1	14.3	14.5
Azimuth Beamwidth (3 dB)		degrees	71° ± 8.4°	66.2° ± 6.1°	62.6° ± 7.9°	62.3° ± 2.6°	62° ± 5.4°
Elevation Beamwidth (3 dB)		degrees	18° ± 1.5°	16.7° ± 0.9°	15.5° ± 1.4°	14.1° ± 1.1°	12.6° ± 1°
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	18.3	19.1	19.6	20.5	21.6
Upper Side Lobe Suppression Peak to +20°		dB	18.8	19.3	18.9	17.6	18.2
Cross Polar Discrimination Over Sector		dB	7	4.3	1.9	2.8	6.7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.9	18.1	17.9	17.3	21.8
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	25				

Specifications follow BASTA guidelines.

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ELECTRICAL SPECIFICATIONS RIght Array ■ **Y2**

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2200	2300-2400	2400-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	12.7 ± 0.7	13.3 ± 0.4	13.5 ± 0.6	13.6 ± 0.7	14.1 ± 0.7
	Max Gain	dBi	13.4	13.7	14.1	14.3	14.8
Azimuth Beamwidth (3 dB)		degrees	69.4° ± 6.6°	65.5° ± 4.9°	62.9° ± 5.2°	63.6° ± 4.4°	61.5° ± 5.6°
Elevation Beamwidth (3 dB)		degrees	17.8° ± 1.3°	16.8° ± 0.9°	15.7° ± 1.5°	14.2° ± 0.9°	12.7° ± 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	17.8	19.6	19.6	19.9	21.6
Upper Side Lobe Suppression Peak to +20°		dB	20	20.3	19.9	17.9	19
Cross Polar Discrimination Over Sector		dB	6.9	4.3	2.7	2.2	7.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.4	18.2	18.8	16.4	20.8
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	25				

Specifications follow BASTA guidelines.

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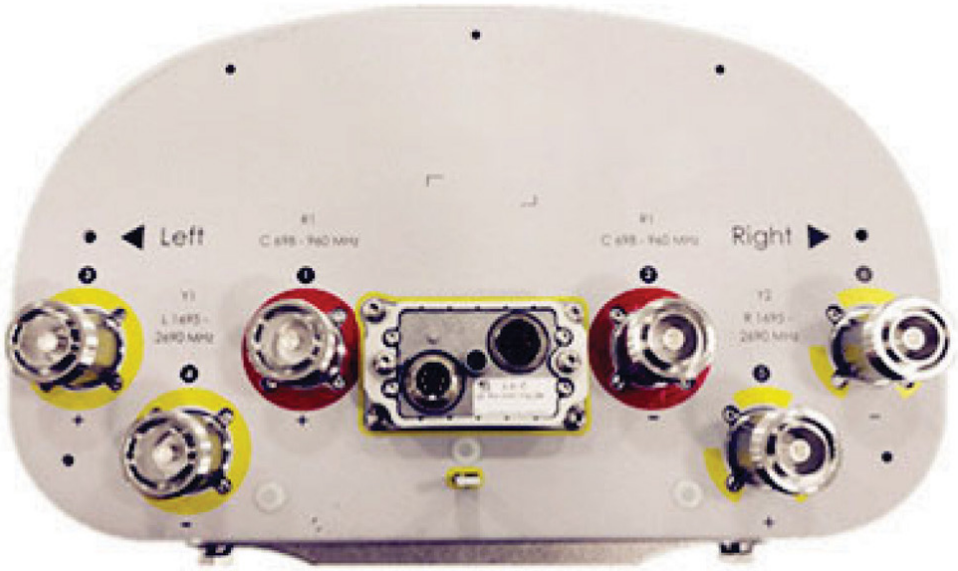
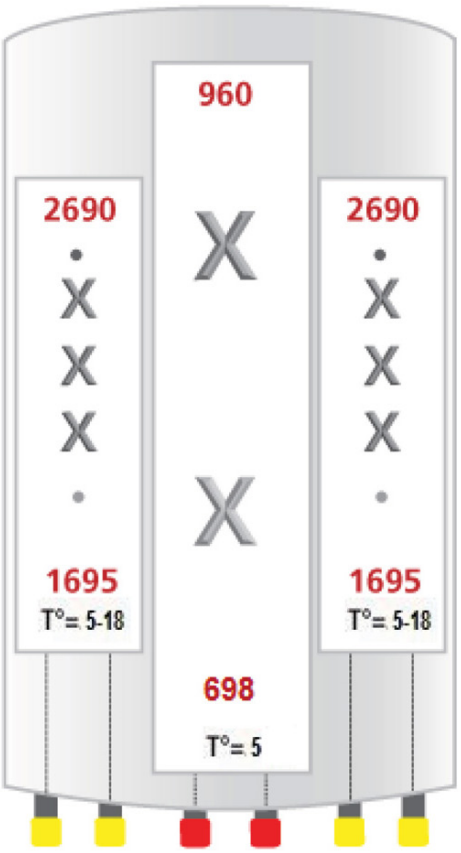
BOTTOM VIEW - LABELING





The illustration is not shown to scale.

APXVBLL06-C-A20

MECHANICAL SPECIFICATIONS

Length		mm (in)	609 (24.0)
Width		mm (in)	340 (13.4)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	8.1 (17.9)
Net Weight - Mounting Hardware Only		kg (lbs)	4.2 (9.3)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	234 (53)
	Side	N (lbf)	151 (34)
	Rear	N (lbf)	253 (57)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	240 (160)
Connector Type		--	(6x) 7-16 Long Neck Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom
Radome Color		---	Light Grey RAL7035
Radome Material		---	ASA
Lightning Protection		---	DC Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in)	710 x 420 x 385 (28.0 x 16.5 x 15.2)
	Shipping Weight	kg (lbs)	14.4 (31.7)

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 50-120 mm (2.0-4.7 in) *Shipped with antenna*	APM40-6	4.2 kg (9.3 lbs)

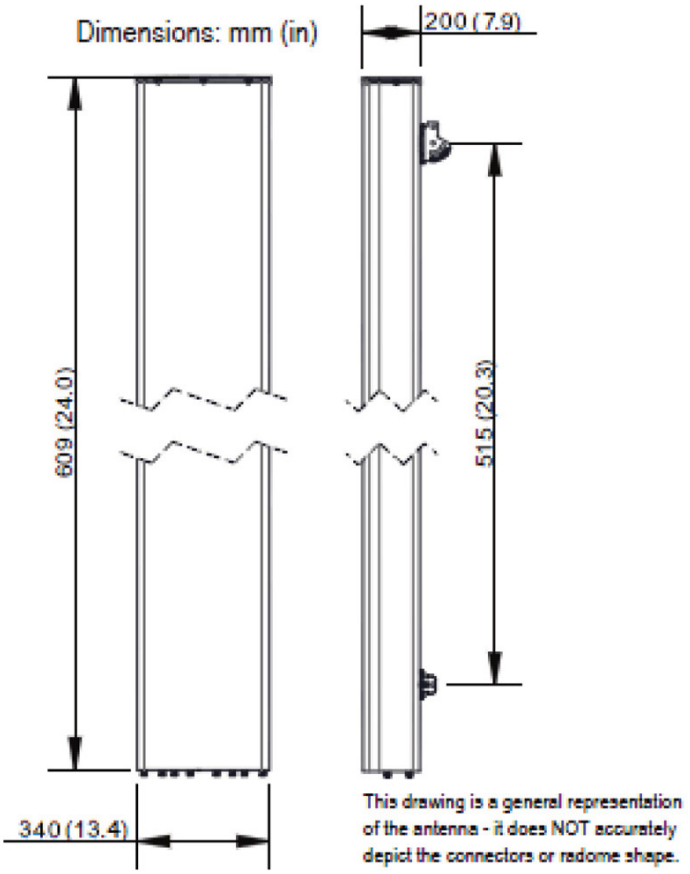
INSTALLATION

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