Amphenol ANTENNA SOLUTIONS

8-Port Panel Antenna

(1x) 698-960 | (3x) 1710-2690 MHz

65° | 1950 mm | INTEGRATED RET | SITE SHARING OPTIONAL

APXVB3L20B_43-C-I20

APXVB3L20B_43-C-I20S

Features

- 2 ports / 1 cross pol system in low band (698-960 MHz)
- 6 ports / 3 cross pol systems in high band (1710-2690 MHz)
- Integrated and field replaceable SRET
- Optional with Site Sharing feature (Model name suffix -I20S)
- Compliant with AISG v2.0 and 3GPP

PRODUCT OVERVIEW					
	Frequency Range (MHz)	(1x) 698-960	(3x) 1710-2690		
	Array	R1	Y1	Y2	Y3
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°	65°		
	Electrical Downtilt	2-12°	2-11°		
	Dimensions	1950 x 350 x 200 mm (76.8 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	MOUNTING HARDWARE WEIGHT
APXVB3L20B_43-C-I20	ACU-I20-B4 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	31.5 kg (69.4 lbs)	4.5 kg (9.9 lbs)
APXVB3L20B_43-C-I20S	ACU-X20-B4 Internal RET for Site Sharing Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	31.5 kg (69.4 lbs)	4.5 kg (9.9 lbs)

3GPP A GLOBAL INITIATIVE

AISG Antenna Interface Standards Group

APXVB3L20B_43-C-I20
APXVB3L20B_43-C-I20S

ELECTRICAL SPECIFICATIONS			R1		
Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.4 ± 0.6	16.0 ± 0.6	16.6 ± 0.3
	Max Gain	dBi	16.0	16.6	16.9
Azimuth Beamwidth (3 dB)		degrees	67.9° ± 1.6°	66.5° ± 1.7°	65.6° ± 0.6°
Elevation Beamwidth (3 dB)		degrees	11.9° ± 0.9°	10.6° ± 0.7°	9.3° ± 0.6°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)		
Front-to-Back Ratio, Total Power, ± 30°		dB	24.4	25.1	25.7
First Upper Side Lobe Suppression		dB	15.0	17.1	16.1
Cross Polar Discrimination Over Sector		dB	11.3	10.2	10.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	27.1	26.8	24.6
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS			Y1				
Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15.2 ± 0.6	15.8 ± 0.3	15.9 ± 0.3	15.0 ± 0.8	15.8 ± 0.6
	Max Gain	dBi	15.8	16.1	16.2	15.8	16.4
Azimuth Beamwidth (3 dB)		degrees	62.5° ± 4.4°	65.5° ± 4.1°	65.2° ± 4.6°	67.4° ± 6.1°	61.3° ± 2.7°
Elevation Beamwidth (3 dB)		degrees	9.9° ± 0.6°	9.1° ± 0.4°	8.6° ± 0.6°	7.8° ± 0.7°	7.3° ± 0.4°
Electrical Downtilt		degrees	2-11°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	19.8	21.5	20.6	19.6	20.5
First Upper Side Lobe Suppression		dB	13.1	11.9	12.0	12.0	14.3
Cross Polar Discrimination Over Sector		dB	10.5	10.1	7.3	8.5	5.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.8	22.1	22.0	14.2	15.5
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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APXVB3L20B_43-C-I20
APXVB3L20B_43-C-I20S

ELECTRICAL SPECIFICATIONS — Y2

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	14.9 ± 0.5	15.6 ± 0.4	15.8 ± 0.5	14.7 ± 0.8	15.6 ± 0.6
	Max Gain	dBi	15.4	16.0	16.3	15.5	16.2
Azimuth Beamwidth (3 dB)		degrees	62° ± 7.9°	67.5° ± 4.7°	66.6° ± 6.3°	71.1° ± 5°	62.1° ± 3°
Elevation Beamwidth (3 dB)		degrees	10.2° ± 0.7°	9.3° ± 0.5°	8.8° ± 0.6°	7.9° ± 0.5°	7.5° ± 0.6°
Electrical Downtilt		degrees	2-11°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	20.3	21.1	21	18.7	20.3
First Upper Side Lobe Suppression		dB	14.3	13.6	13.3	10.8	14.3
Cross Polar Discrimination Over Sector		dB	10.3	9.7	8.2	6.3	3.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21.8	23.9	17.5	13.5	12.7
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

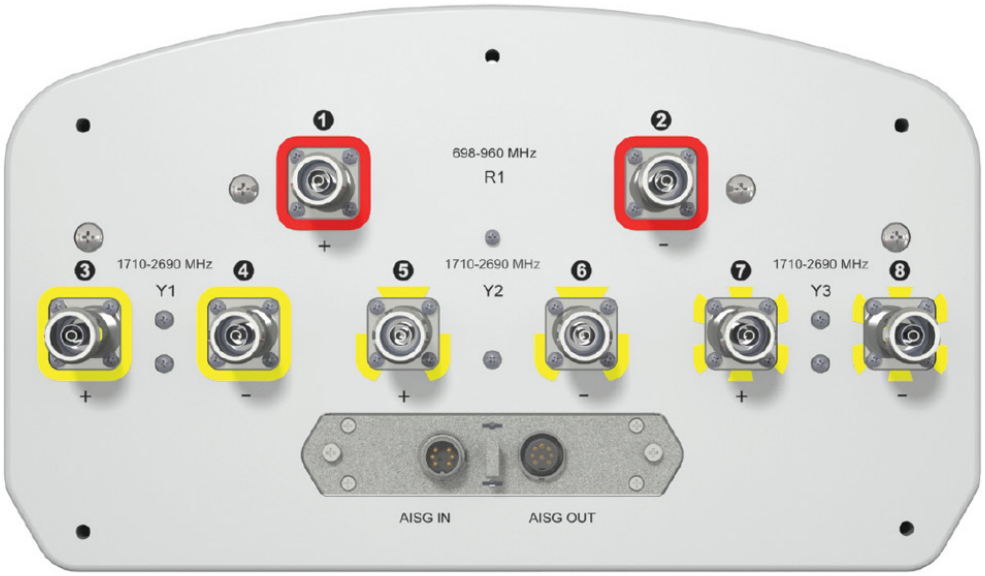
ELECTRICAL SPECIFICATIONS — Y3

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15.1 ± 0.7	15.9 ± 0.3	15.9 ± 0.3	14.9 ± 0.6	15.7 ± 0.7
	Max Gain	dBi	15.8	16.2	16.2	15.5	16.4
Azimuth Beamwidth (3 dB)		degrees	61° ± 2.5°	63.4° ± 4.5°	63.8° ± 6.4°	67.3° ± 5.4°	61.4° ± 3.1°
Elevation Beamwidth (3 dB)		degrees	10° ± 0.6°	9.2° ± 0.5°	8.7° ± 0.7°	7.8° ± 0.6°	7.3° ± 0.4°
Electrical Downtilt		degrees	2-11°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	19.8	21.6	21.7	19.1	19.2
First Upper Side Lobe Suppression		dB	12.6	12	11.9	10.6	12.7
Cross Polar Discrimination Over Sector		dB	9.2	9.5	5.7	7	6.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20	19	18.3	15	15.3
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

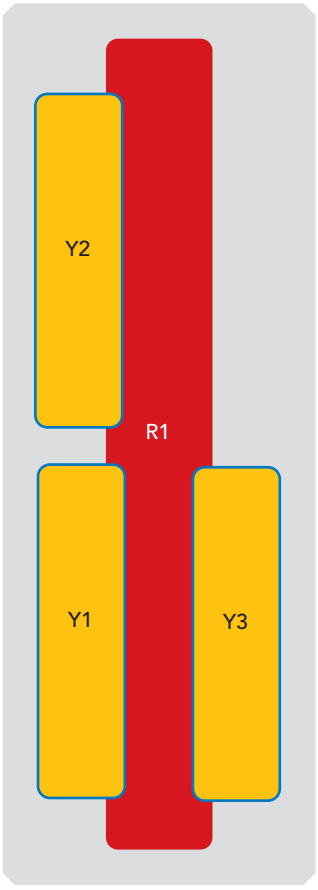
APXVB3L20B_43-C-I20
APXVB3L20B_43-C-I20S

BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
R1	698-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxxx-R1
Y1	1710-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxxx-Y1
Y2	1710-2690 MHz	5-6	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxxx-Y2
Y3	1710-2690 MHz	7-8	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxxx-Y3



The illustration is not shown to scale.

APXVB3L20B_43-C-I20
APXVB3L20B_43-C-I20S

MECHANICAL SPECIFICATIONS

Length		mm (in)	1950 (76.8)
Width		mm (in)	350 (13.8)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	22.5 (49.6)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	842 (189)
	Side	N (lbf)	481(108)
	Rear	N (lbf)	1025 (230)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(8x) 4.3-10 Female, (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)	2200 x 445 x 295 (86.6 x 17.5 x 11.6)

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

APXVB3L20B_43-C-I20
APXVB3L20B_43-C-I20S

ACCESSORIES Accessories may be ordered separately unless otherwise indicated.

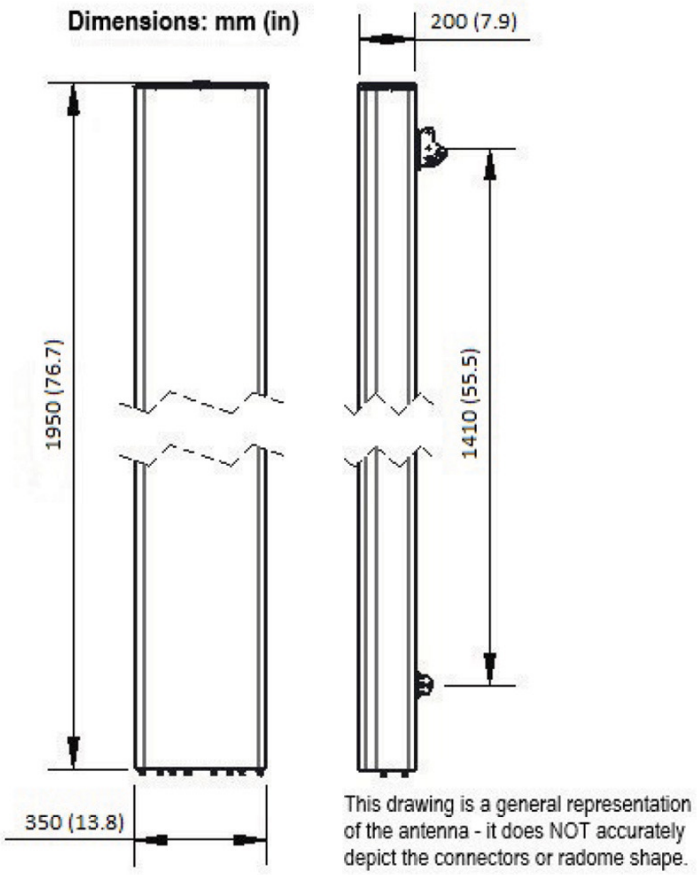
ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) *Shipped with antenna*	APM50-B1	4.5 kg (9.9 lbs)

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