

## APXVBLL3LL26AB\_43-C-I20

## APXVBLL3LL26AB\_43-C-I20S

### Features

- 2 ports / 1 cross pol system in low band (698-960 MHz), 65°
- 4 ports / 2 cross pol systems in high band (1710-2690 MHz), 65°
- 2 ports + 2 ports, each 33° beam based on 1 cross pol system (1710-2690 MHz) separated by 60°
- 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	(2x) 1710-2690		(2x) 1710-2690	
	Array	<div><div></div> R1</div>	<div><div></div> Y1</div>	<div><div></div> Y2</div>	<div><div></div> Y3</div>	<div><div></div> Y4</div>
	Connector	1-2	3-4	5-6	7-8	9-10
		10 PORTS				
	Polarization	XPOL				
	Azimuth Beamwidth (avg)	65°	65°	33°	65°	33°
	Electrical Downtilt	2-12°	2-12°			
	Dimensions	2690 x 350 x 200 mm (105.9 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
APXVBLL3LL26AB_43-C-I20	ACU-I20-B5 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	50.5 kg (111.3 lbs)	4.5 kg (9.9 lbs)
APXVBLL3LL26AB_43-C-I20S	ACU-X20-B5 Internal RET for Site Sharing Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	50.5 kg (111.3 lbs)	4.5 kg (9.9 lbs)

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### ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.7 ± 0.6	16 ± 0.6	16.3 ± 0.5
	Max Gain	dBi	16.3	16.6	16.8
Azimuth Beamwidth (3 dB)		degrees	67.8° ± 1.5°	66.4° ± 1.4°	65.2° ± 1.3°
Elevation Beamwidth (3 dB)		degrees	8.7° ± 0.9°	7.8° ± 0.6°	7.1° ± 0.4°
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	21.3	24.6	25.5
First Upper Side Lobe Suppression		dB	14.1	14.2	12.4
Cross Polar Discrimination Over Sector		dB	11.7	10.5	11.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22.6	29.2	27.3
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	16.5 ± 0.8	16.8 ± 0.4	17.2 ± 0.7	17 ± 0.6 16.8 ± 1
	Max Gain	dBi	17.3	17.2	17.9	17.6 17.8
Azimuth Beamwidth (3 dB)		degrees	61.1° ± 4.4°	64.4° ± 4.1°	65.1° ± 4.8°	67.5° ± 5.6° 60.4° ± 4°
Elevation Beamwidth (3 dB)		degrees	8.3° ± 0.7°	7.6° ± 0.7°	7.1° ± 0.6°	6.2° ± 0.2° 5.6° ± 0.4°
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	20.3	21.8	22	23.2 24.2
First Upper Side Lobe Suppression		dB	15.1	14.4	14.8	16 14.1
Cross Polar Discrimination Over Sector		dB	7.8	8.6	8.3	8.3 1.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20.4	19.5	17.7	17.3 18
Maximum Effective Power Per Port		Watts	250 W			
Cross Polar Isolation		dB	26			
Interband Isolation		dB	26			

Specifications follow BASTA guidelines.

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.

## APXVBLL3LL26AB\_43-C-I20

## APXVBLL3LL26AB\_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	17.4 ± 0.8	17.9 ± 0.6	18.2 ± 0.8	18.2 ± 0.7	18.1 ± 0.5
	Max Gain	dBi	18.2	18.5	19.0	18.9	18.6
Azimuth Beamwidth (3 dB)		degrees	33.8° ± 2.8°	31.1° ± 2.3°	29.4° ± 2.7°	24.3° ± 1.7°	23.4° ± 2.4°
Elevation Beamwidth (3 dB)		degrees	8° ± 0.7°	7.4° ± 0.3°	7° ± 0.6°	6.1° ± 0.4°	5.6° ± 0.3°
Beam Center		degrees	±30°	±28°	±25°	±24°	±23°
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	24.1	24.2	25	23.5	23.4
First Upper Side Lobe Suppression		dB	15.8	16.7	16.2	14.6	16.5
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

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	16.2 ± 1.1	16.7 ± 0.7	17.1 ± 0.9	17 ± 0.5	16.7 ± 0.8
	Max Gain	dBi	17.3	17.4	18.0	17.5	17.5
Azimuth Beamwidth (3 dB)		degrees	61.7° ± 4.7°	63.8° ± 3.8°	64.2° ± 5.6°	67.6° ± 6.7°	60.3° ± 4.8°
Elevation Beamwidth (3 dB)		degrees	8.3° ± 0.8°	7.6° ± 0.6°	7.2° ± 0.7°	6.2° ± 0.4°	5.7° ± 0.5°
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	20.6	22.1	22.7	23.5	21.8
First Upper Side Lobe Suppression		dB	17	17.3	17.1	16	16
Cross Polar Discrimination Over Sector		dB	7.5	8.1	8	10.4	1.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.5	17.6	17.1	22.3	18.9
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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## APXVBLL3LL26AB\_43-C-I20

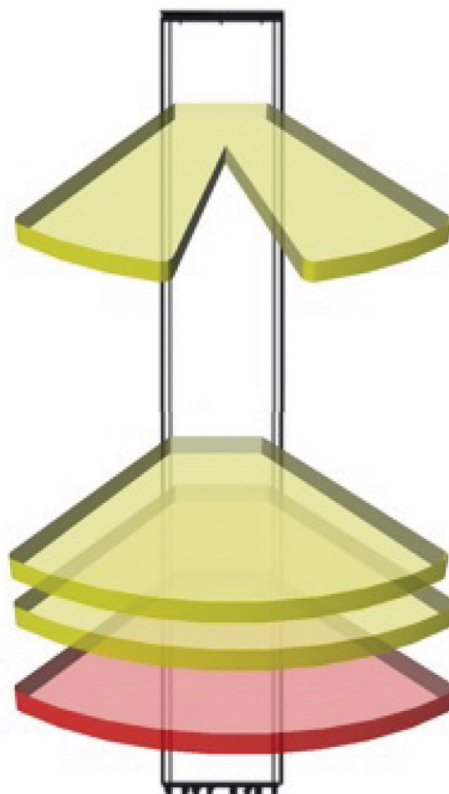
## APXVBLL3LL26AB\_43-C-I20S

### ELECTRICAL SPECIFICATIONS

■ Y4

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	17.4 ± 0.7	17.9 ± 0.5	18.2 ± 0.7	18.4 ± 0.8	18.1 ± 0.5
	Max Gain	dBi	18.1	18.4	18.9	19.2	18.6
Azimuth Beamwidth (3 dB)		degrees	34.6° ± 2.6°	31.1° ± 2.1°	29.4° ± 2.8°	24.2° ± 1.4°	23.6° ± 1.9°
Elevation Beamwidth (3 dB)		degrees	8.1° ± 0.8°	7.3° ± 0.3°	6.9° ± 0.6°	6.2° ± 0.3°	5.5° ± 0.3°
Beam Center		degrees	±30°	±28°	±25°	±24°	±23°
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	23.6	24.1	25.1	23.1	21.7
First Upper Side Lobe Suppression		dB	15.6	17	18.1	15.1	16.3
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

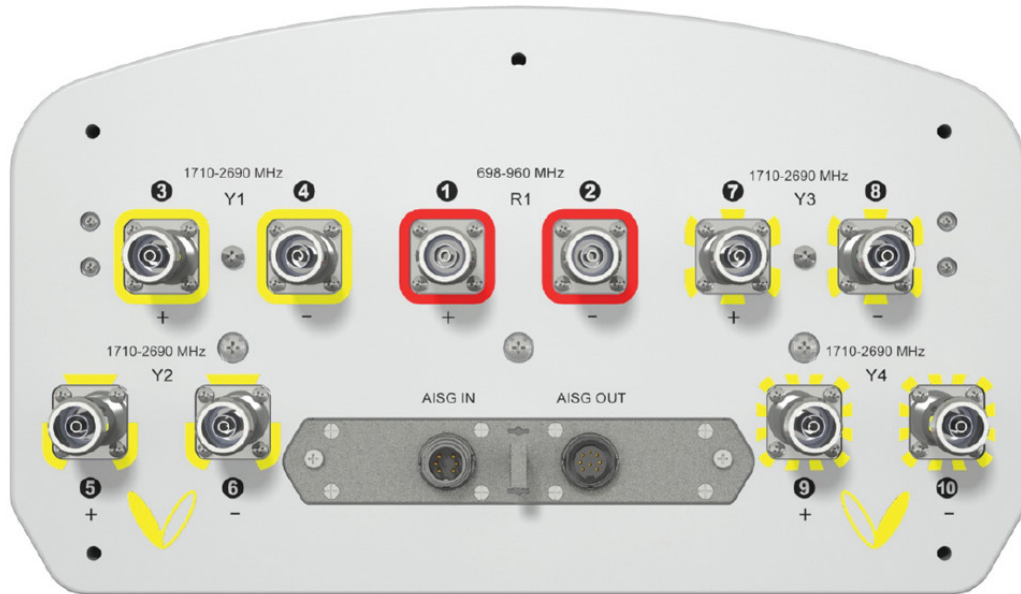
Specifications follow BASTA guidelines.



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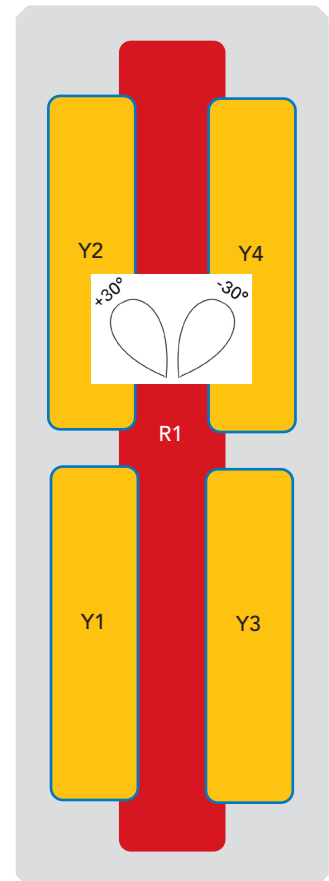
## APXVBLL3LL26AB\_43-C-I20S

### BOTTOM VIEW - LABELING



### ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
<span style="color: red;">■</span> R1	698-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
<span style="color: yellow;">■</span> Y1	1710-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
<span style="color: yellow;">■</span> Y2	1710-2690 MHz	5-6	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2
<span style="color: yellow;">■</span> Y3	1710-2690 MHz	7-8	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxx-Y3
<span style="color: yellow;">■</span> Y4	1710-2690 MHz	9-10	(2x) 4.3-10 Female	Y4	RFxxxxxxxxxx-Y4



The illustration is not shown to scale.

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### MECHANICAL SPECIFICATIONS

Length		mm (in)	2690 (105.9)
Width		mm (in)	350 (13.8)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	39.5 (87.1)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	713 (160)
	Side	N (lbf)	746 (168)
	Rear	N (lbf)	827 (186)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(10x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom Site Sharing: (4x) AISG Connectors (2 Male, 2 Female) at Bottom
Radome Color		---	Light Grey RAL7035
Radome Material		---	Fiberglass
Lightning Protection		---	Direct Ground
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in)	2940 x 445 x 295 (115.7 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

## APXVBLL3LL26AB\_43-C-I20

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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 50-110 mm (2.0-4.3 in) <i>Shipped with antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

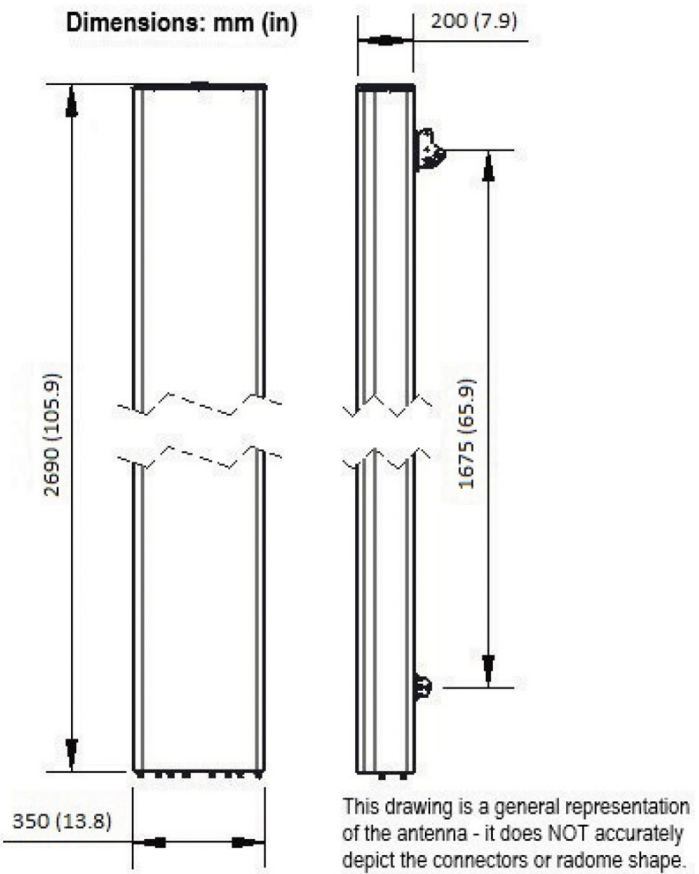
#### INSTALLATION

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](#)