

## APXVB34L26AB\_43-C-I20

### APXVB34L26AB\_43-C-I20S



### Features

- Hybrid twin beam antenna
- 2 ports / 1 cross pol system in low band (698-960 MHz), 65°
- 4 ports + 4 ports, each 33° beam based on 2 cross pol systems (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

<b>PRODUCT OVERVIEW</b>	Frequency Range (MHz)	(1x) 698-960	(4x) 1710-2690			
	Array	■ R1	■ Y1	■ Y2	■ Y3	■ Y4
	Connector	1-2	3-4	5-6	7-8	9-10
		10 PORTS				
	Polarization	XPOL				
	Azimuth Beamwidth (avg)	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
APXVB34L26AB_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)
APXVB34L26AB_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	15.8 ± 1.0	16.3 ± 0.8	16.4 ± 0.6
	Max Gain	dBi	16.8	17.1	17.0
Azimuth Beamwidth (3 dB)		degrees	68.4° ± 2.2°	64.6° ± 3.7°	62.3° ± 1.9°
Elevation Beamwidth (3 dB)		degrees	8.8° ± 0.9°	7.8° ± 0.8°	7.0° ± 0.4°
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	19.5	19.5	20.4
First Upper Side Lobe Suppression		dB	18.5	13.7	14.8
Cross Polar Discrimination Over Sector		dB	5	2.5	5.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.8	20.3	21.9
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	17.3 ± 0.7	18.1 ± 0.4	18.5 ± 0.7	18.5 ± 0.8	18.1 ± 0.6
	Max Gain	dBi	18.0	18.5	19.2	19.3	18.7
Azimuth Beamwidth (3 dB)		degrees	32.7° ± 2.6°	30.4° ± 2°	28.7° ± 2.9°	24.1° ± 1.2°	23.2° ± 2.3°
Elevation Beamwidth (3 dB)		degrees	7.9° ± 0.6°	7.3° ± 0.3°	6.9° ± 0.6°	6° ± 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	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	21	23	23.8	21.5	21.5
First Upper Side Lobe Suppression		dB	14.5	16.2	16.3	16.3	17.3
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

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### 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	16.9 ± 0.7	17.7 ± 0.4	18.2 ± 0.9	18.2 ± 0.9	18.2 ± 0.6
	Max Gain	dBi	17.6	18.1	19.1	19.1	18.8
Azimuth Beamwidth (3 dB)		degrees	32.9° ± 3.2°	30.5° ± 1.8°	28.9° ± 2.9°	24.9° ± 2.2°	23.3° ± 1.3°
Elevation Beamwidth (3 dB)		degrees	8.1° ± 0.7°	7.5° ± 0.3°	7° ± 0.7°	6.1° ± 0.3°	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	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	22.3	22.3	23.4	21.6	21.4
First Upper Side Lobe Suppression		dB	17	18.6	18.1	17.4	17.5
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

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### 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	17.5 ± 0.5	18.1 ± 0.4	18.6 ± 0.8	19 ± 0.7	18.3 ± 0.6
	Max Gain	dBi	18.0	18.5	19.4	19.7	18.9
Azimuth Beamwidth (3 dB)		degrees	32.3° ± 3°	30.3° ± 1.6°	28.5° ± 2.7°	24.4° ± 1.9°	23.7° ± 1.8°
Elevation Beamwidth (3 dB)		degrees	7.9° ± 0.5°	7.4° ± 0.3°	6.9° ± 0.6°	6° ± 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	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	22.7	23.9	24.8	22.8	20.1
First Upper Side Lobe Suppression		dB	15.9	15.8	15.8	14.4	16.2
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

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## APXVB34L26AB\_43-C-I20

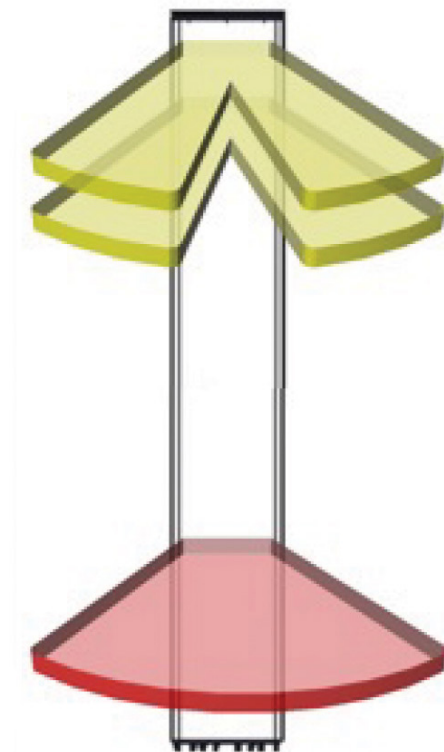
### APXVB34L26AB\_43-C-I20S

#### 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	16.9 ± 0.7	17.6 ± 0.4	18.2 ± 0.9	18.5 ± 0.8	18.1 ± 0.7
	Max Gain	dBi	17.6	18.0	19.1	19.3	18.8
Azimuth Beamwidth (3 dB)		degrees	32.7° ± 2.6°	30.2° ± 0.8°	28.7° ± 2.2°	24.4° ± 1.6°	23.4° ± 1.5°
Elevation Beamwidth (3 dB)		degrees	7.8° ± 0.4°	7.3° ± 0.2°	6.9° ± 0.5°	6° ± 0.2°	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	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	21.1	22.9	23.6	23.4	21.8
First Upper Side Lobe Suppression		dB	17.5	18.9	18.8	16.1	17.6
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				
Beam Isolation		dB	13				

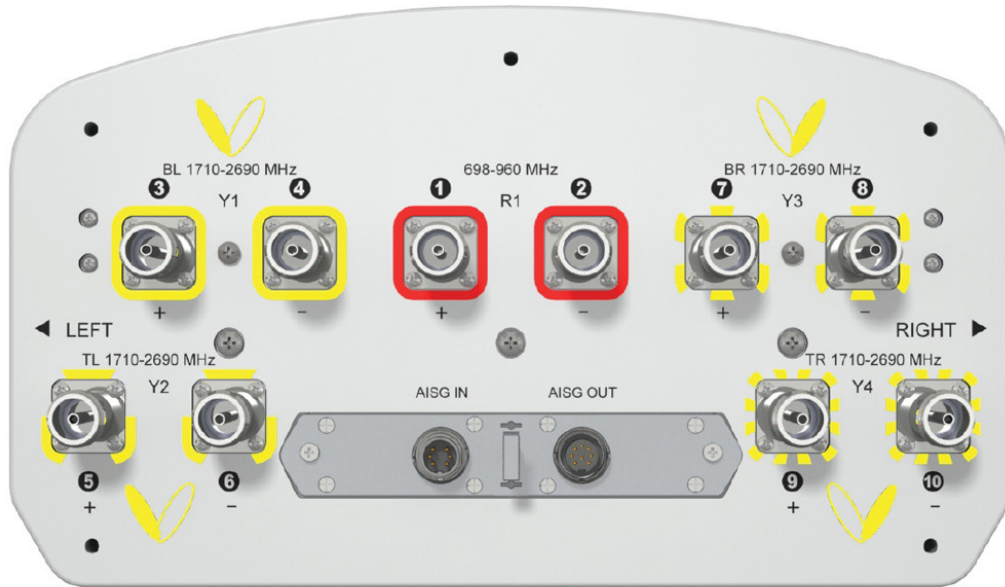
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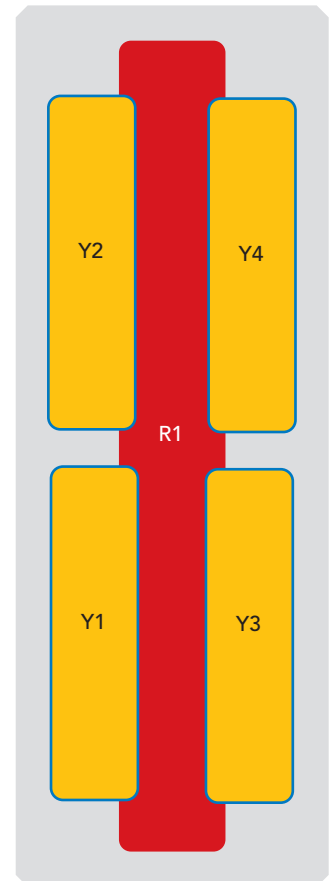
## APXVB34L26AB\_43-C-I20 APXVB34L26AB\_43-C-I20S

### 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	km/h (mph)	200 (124)
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

## APXVB34L26AB\_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.

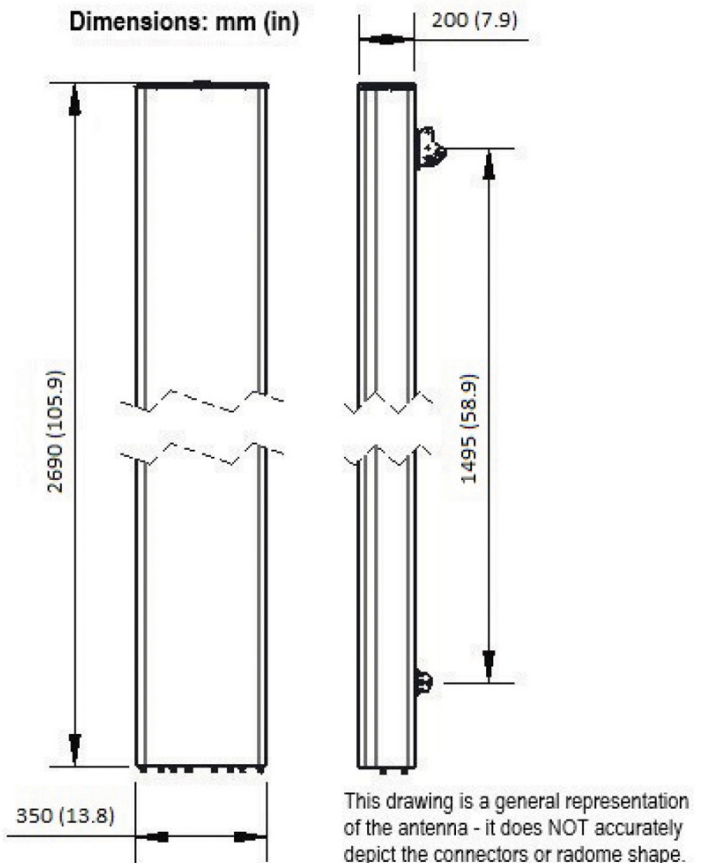


Always attach the antenna using all mounting points.

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](#)