

65°

2498 mm

INTEGRATED RET

SITE SHARING OPTIONAL

APXVBLL26H2_43-C-I20

APXVBLL26H2_43-A-I20, APXVBLL26H2_43-C-I20S, APXVBLL26H2_43-A-I20S

Features

- 4 ports / 2 cross pol systems in low band (690-960 MHz)
- 4 ports / 2 cross pol systems in high band (1695-2690 MHz)
- Supports 4x4 MIMO in low band and high band
- Integrated and field replaceable SRET
- Optional with Site Sharing feature (Model name suffix -C-I20S, -A-I20S)
- Optional with Direct Pipe No Tilt mounting hardware (Model name suffix -A-I20, -A-I20S)
- Compliant with AISG v2.0 and 3GPP
- Optimized radome for low windload



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 690-960		(2x) 1695-2690	
	Array	■ R1	■ R2	■ Y1	■ Y2
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°		65°	
	Electrical Downtilt	2-12°		2-12°	
	Dimensions	2498 x 469 x 205 mm (98.3 x 18.5 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
APXVBLL26H2_43-C-I20	ACU-I20-H12J Internal RET Included	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	48.2 kg (106.3 lbs)	9 kg (19.8 lbs)
APXVBLL26H2_43-A-I20	ACU-I20-H12J Internal RET Included	APM50-HSN Direct Pipe No Tilt Mounting Kit Included	50-125 mm (2.0-4.9 in)	45.2 kg (99.6 lbs)	6 kg (13.2 lbs)
APXVBLL26H2_43-C-I20S	ACU-X20H Internal RET for Site Sharing Included	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	48.3 kg (106.5 lbs)	9 kg (19.8 lbs)
APXVBLL26H2_43-A-I20S	ACU-X20H Internal RET for Site Sharing Included	APM50-HSN Direct Pipe No Tilt Mounting Kit Included	50-125 mm (2.0-4.9 in)	45.3 kg (99.9 lbs)	6 kg (13.2 lbs)



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ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	690-960		
		MHz	690-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	16.2 ± 0.5	16.4 ± 0.4	16.5 ± 0.4
	Max Gain	dBi	16.7	16.8	16.9
Azimuth Beamwidth (3 dB)		degrees	67.1° ± 6.1°	64.6° ± 5.3°	65.5° ± 5.6°
Elevation Beamwidth (3 dB)		degrees	8.6° ± 0.6°	8° ± 0.5°	7.3° ± 0.5°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-153		
Front-to-Back Ratio, Total Power, ± 30°		dB	19.1	22.1	23
First Upper Side Lobe Suppression		dB	14.9	16.8	16
Cross Polar Discrimination Over Sector		dB	13	10.5	8.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.5	25.6	27.5
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ R2

Frequency Range		MHz	690-960		
		MHz	690-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	16.1 ± 0.3	16.2 ± 0.3	16.3 ± 0.4
	Max Gain	dBi	16.4	16.5	16.7
Azimuth Beamwidth (3 dB)		degrees	67° ± 4.8°	64.1° ± 4.7°	65.5° ± 6.1°
Elevation Beamwidth (3 dB)		degrees	8.4° ± 0.4°	7.9° ± 0.4°	7.3° ± 0.5°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-153		
Front-to-Back Ratio, Total Power, ± 30°		dB	19.9	22.5	22.4
First Upper Side Lobe Suppression		dB	16	17.7	14.9
Cross Polar Discrimination Over Sector		dB	13.2	10.5	9.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	27.1	29.8	25.9
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

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ELECTRICAL SPECIFICATIONS

■ Y1

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.4 ± 0.8	17.3 ± 0.4	17.8 ± 0.8	17.2 ± 0.6	17 ± 0.5
	Max Gain	dBi	17.2	17.7	18.6	17.8	17.5
Azimuth Beamwidth (3 dB)		degrees	68.3° ± 5°	62.1° ± 4.7°	61.7° ± 4.5°	60.3° ± 5.9°	59.9° ± 5.1°
Elevation Beamwidth (3 dB)		degrees	6.4° ± 0.4°	6° ± 0.2°	5.8° ± 0.4°	5.3° ± 0.4°	4.8° ± 0.3°
Electrical Downtilt		degrees	2-12°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-153				
Front-to-Back Ratio, Total Power, ± 30°		dB	25.8	25.4	25.8	26.4	26.9
First Upper Side Lobe Suppression		dB	14.9	17.7	17.2	17.4	18.3
Cross Polar Discrimination Over Sector		dB	5.1	6.4	3	1.3	0.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.3	18.2	15.6	11.7	17.2
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ Y2

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.5 ± 0.8	17.4 ± 0.4	17.9 ± 0.7	17.2 ± 0.6	17 ± 0.7
	Max Gain	dBi	17.3	17.8	18.6	17.8	17.7
Azimuth Beamwidth (3 dB)		degrees	67.8° ± 5.1°	62° ± 3.7°	61.8° ± 3.6°	61.1° ± 6.7°	59.3° ± 5°
Elevation Beamwidth (3 dB)		degrees	6.4° ± 0.4°	5.9° ± 0.2°	5.8° ± 0.3°	5.2° ± 0.4°	4.8° ± 0.3°
Electrical Downtilt		degrees	2-12°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-153				
Front-to-Back Ratio, Total Power, ± 30°		dB	26.5	24.5	25.4	26.6	27.3
First Upper Side Lobe Suppression		dB	13.1	17.3	16.9	18.3	18.9
Cross Polar Discrimination Over Sector		dB	4.5	7	3.2	1.7	0.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.7	20.1	16.4	12.2	17.9
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	28				

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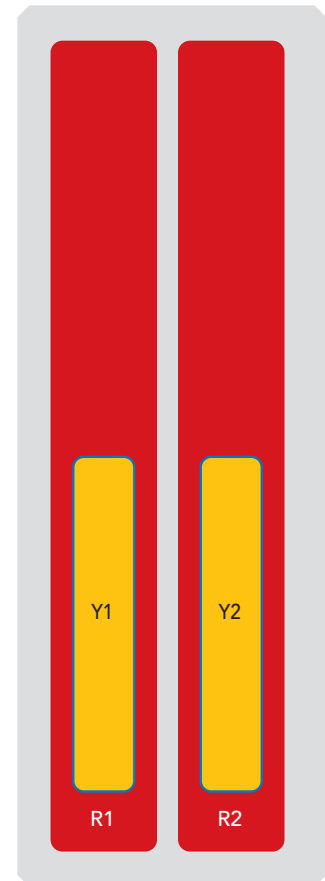
BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	690-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
■ R2	690-960 MHz	3-4	(2x) 4.3-10 Female	R2	RFxxxxxxxxxx-R2
■ Y1	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	1695-2690 MHz	7-8	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2

NOTE: RET motors will tilt one at a time, not simultaneously



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length	mm (in)	2498 (98.3)
Width	mm (in)	469 (18.5)
Depth	mm (in)	205 (8.5)
Net Weight - Antenna Only	kg (lbs)	32.2 (71)
Wind Load Rated at 150 km/h (93 mph)	Frontal, Resultant	N (lbf) 693 (156)
	Side, Resultant	N (lbf) 720 (162)
	Rear, Resultant	N (lbf) 723 (163)
	Maximum, Resultant	N (lbf) 1153 (259)
	Maximum, Drag Force	N (lbf) 916 (206)
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 Site Sharing: (4x) AISG Connectors (2 Male, 2 Female) at Bottom
Radome Color	---	Light Grey RAL7035
Radome Material	---	Fiberglass
Lightning Protection	---	Direct Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in) 2698 x 544 x 330 (106.2 x 21.4 x 13)

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 50-125 mm (2.0-4.9 in) <i>Refer to ordering options</i>	APM50-HS	9 kg (19.8 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 50-125 mm (2.0-4.9 in) <i>Refer to ordering options</i>	APM50-HSN	6 kg (13.2 lbs)

INSTALLATION

Please read all installation notes before installing product.

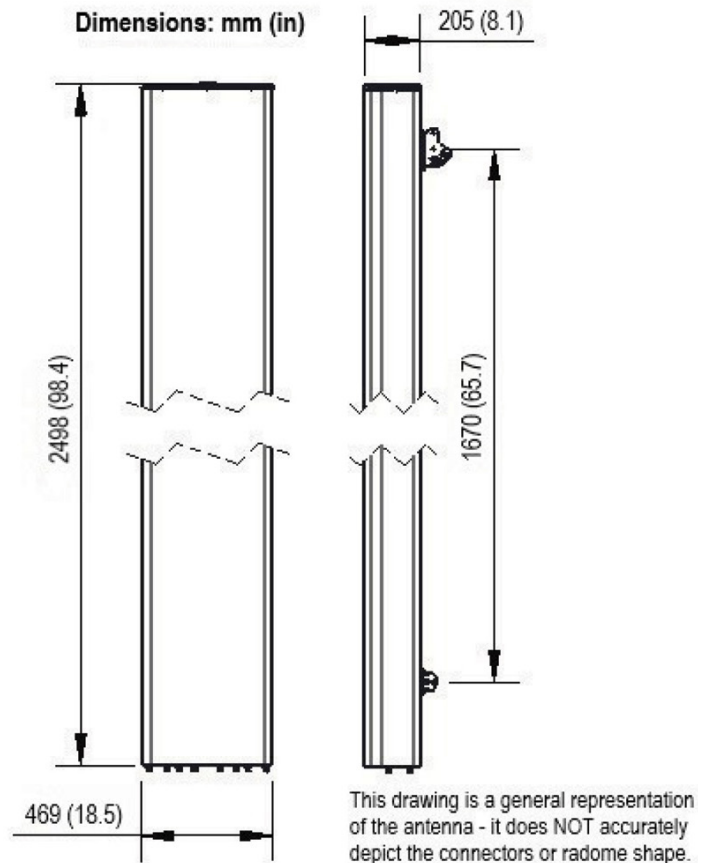


Always attach the antenna using all mounting points.

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](#)