

65°

590 mm

FIXED TILT

APXBLLYY05B_43-CT2

APXBLLYY05B_43-AT2

Features

- 4 ports / 2 cross pol systems in low band (698-960 MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- 4 ports / 2 cross pol systems in high band (3300-3800 MHz)
- Supporting 4x4 MIMO
- Fixed Tilt
- Optional with Direct Pipe No Tilt mounting hardware (Model name suffix -AT2)



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 698-960		(2x) 1710-2690		(2x) 3300-3800 MHz	
	Array	<div></div> R1	<div></div> R2	<div></div> Y1	<div></div> Y2	<div></div> P1	<div></div> P2
	Connector	1-2	3-4	5-6	7-8	9-10	11-12
		12 PORTS					
	Polarization	XPOL					
	Azimuth Beamwidth (avg)	65°		65°		65°	
	Electrical Downtilt	2°		2°		2°	
	Dimensions	590 x 499 x 199 mm (23.2 x 19.6 x 7.8 in)					

ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
APXBLLYY05B_43-CT2	Fixed Tilt	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	19.2 kg (42.3 lbs)	4.5 kg (9.9 lbs)
APXBLLYY05B_43-AT2	Fixed Tilt	APM50-B1N Direct Pipe No Tilt Mounting Kit Included	50-110 mm (2.0-4.3 in)	18.1 kg (39.9 lbs)	3.4 kg (7.5 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	9.4 ± 0.5	10.1 ± 0.1	10.4 ± 0.5
	Max Gain	dBi	9.9	10.2	10.9
Azimuth Beamwidth (3 dB)		degrees	81° ± 4.3°	74.9° ± 7.9°	72.8° ± 4.3°
Elevation Beamwidth (3 dB)		degrees	44° ± 2°	40.9° ± 3.5°	39.4° ± 1.7°
Electrical Downtilt		degrees	2°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150		
Front-to-Back Ratio, Total Power, ± 30°		dB	18	17.6	16
First Upper Side Lobe Suppression		dB	12	8.4	7
Cross Polar Discrimination Over Sector		dB	10.3	6.4	10
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.7	19	19.9
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	25		
Interband Isolation		dB	25		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ R2

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	9.7 ± 0.5	10.1 ± 0.1	10.5 ± 0.5
	Max Gain	dBi	10.2	10.2	11.0
Azimuth Beamwidth (3 dB)		degrees	81.1° ± 5.3°	76.9° ± 6.5°	72.8° ± 4.3°
Elevation Beamwidth (3 dB)		degrees	45.6° ± 3.5°	41.8° ± 3.1°	39.5° ± 1.6°
Electrical Downtilt		degrees	2°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150		
Front-to-Back Ratio, Total Power, ± 30°		dB	17.7	19	17.8
First Upper Side Lobe Suppression		dB	12	9	7.7
Cross Polar Discrimination Over Sector		dB	8	8	7.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.6	19	20.8
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	25		
Interband Isolation		dB	25		

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APXBBLLYY05B_43-CT2

APXBBLLYY05B_43-AT2

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	10.9 ± 0.2	10.9 ± 0.4	11.1 ± 0.7	10.6 ± 0.6	11.7 ± 0.6
	Max Gain	dBi	11.1	11.3	11.8	11.2	12.3
Azimuth Beamwidth (3 dB)		degrees	57.5° ± 4.3°	55.3° ± 1.9°	58.7° ± 7.1°	81.5° ± 5.9°	67.8° ± 8.9°
Elevation Beamwidth (3 dB)		degrees	36° ± 2.2°	34.5° ± 1.8°	33.2° ± 2.5°	34.3° ± 2.9°	24.4° ± 2.3°
Electrical Downtilt		degrees	2°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150				
Front-to-Back Ratio, Total Power, ± 30°		dB	18.2	18.3	19.2	19.9	18.9
First Upper Side Lobe Suppression		dB	11	9.9	9.4	6.8	6
Cross Polar Discrimination Over Sector		dB	7.9	10.1	8	9.2	2.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20.2	21	17	13.9	14
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

Specifications follow BASTA guidelines.

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	11.0 ± 0.1	11.0 ± 0.2	11.2 ± 0.5	10.9 ± 0.5	12.0 ± 0.5
	Max Gain	dBi	11.1	11.2	11.7	11.4	12.5
Azimuth Beamwidth (3 dB)		degrees	57.8° ± 3°	55.6° ± 1.4°	59.6° ± 7.1°	73.4° ± 11.5°	68.7° ± 7.7°
Elevation Beamwidth (3 dB)		degrees	35.8° ± 2.3°	34.5° ± 2.3°	33.2° ± 3.1°	34.2° ± 1.8°	24.6° ± 2.4°
Electrical Downtilt		degrees	2°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150				
Front-to-Back Ratio, Total Power, ± 30°		dB	19.8	21.1	21	20.9	20.9
First Upper Side Lobe Suppression		dB	10.3	9	9.2	7.3	6.4
Cross Polar Discrimination Over Sector		dB	9.3	9.1	6.1	6.5	7.8
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22	20.1	18.5	15	16
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

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APXBBLLYY05B_43-CT2

APXBBLLYY05B_43-AT2

ELECTRICAL SPECIFICATIONS

P1

Frequency Range		MHz	3300-3800	
		MHz	3300-3500	3500-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	12 ± 0.1	12.1 ± 0.2
	Max Gain	dBi	12.1	12.3
Azimuth Beamwidth (3 dB)		degrees	57.1° ± 10.1°	49.2° ± 18.7°
Elevation Beamwidth (3 dB)		degrees	27.7° ± 3.8°	25.1° ± 1.4°
Electrical Downtilt		degrees	2°	
Impedance		Ohms	50Ω	
VSWR (Return Loss)		---	1.5:1 (-14 dB)	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150	
Front-to-Back Ratio, Total Power, ± 30°		dB	21.4	20
First Upper Side Lobe Suppression		dB	10.2	7.6
Cross Polar Discrimination Over Sector		dB	4.3	7.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.9	18.7
Maximum Effective Power Per Port		Watts	200 W	
Cross Polar Isolation		dB	25	
Interband Isolation		dB	25	

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

P2

Frequency Range		MHz	3300-3800	
		MHz	3300-3500	3500-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	12 ± 0.2	11.9 ± 0.4
	Max Gain	dBi	12.2	12.3
Azimuth Beamwidth (3 dB)		degrees	70° ± 48.6°	54.1° ± 16.2°
Elevation Beamwidth (3 dB)		degrees	26.7° ± 3.4°	25.1° ± 3.5°
Electrical Downtilt		degrees	2°	
Impedance		Ohms	50Ω	
VSWR (Return Loss)		---	1.5:1 (-14 dB)	
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150	
Front-to-Back Ratio, Total Power, ± 30°		dB	20.8	21
First Upper Side Lobe Suppression		dB	12.7	11
Cross Polar Discrimination Over Sector		dB	7.8	4.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	14.6	13
Maximum Effective Power Per Port		Watts	200 W	
Cross Polar Isolation		dB	25	
Interband Isolation		dB	25	

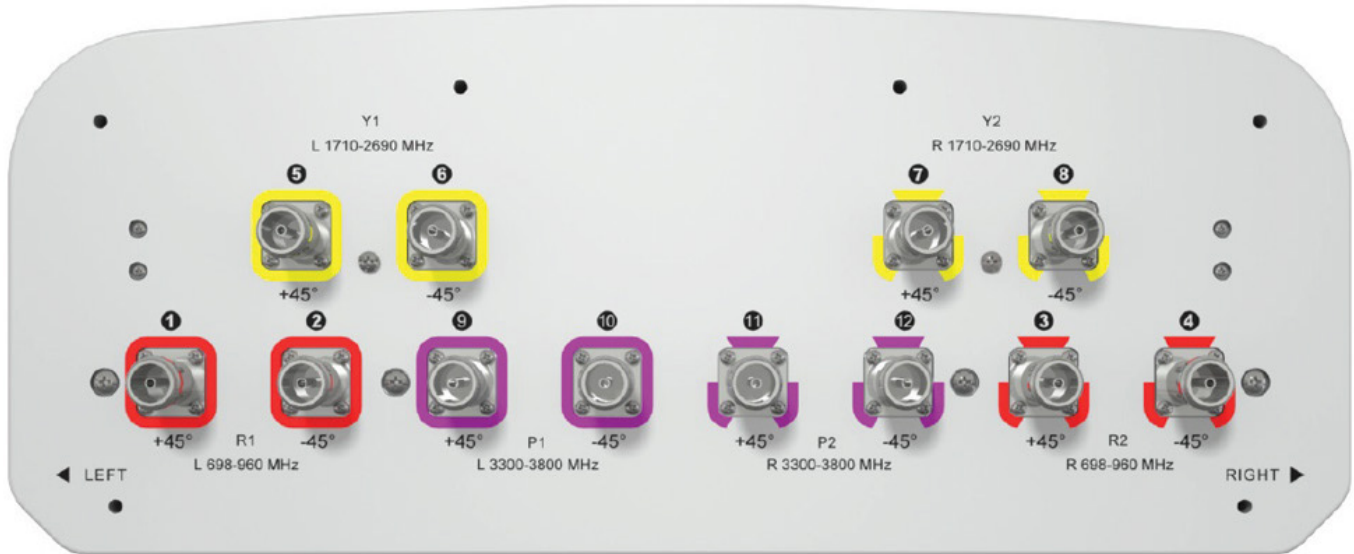
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APXBBLLYY05B_43-CT2

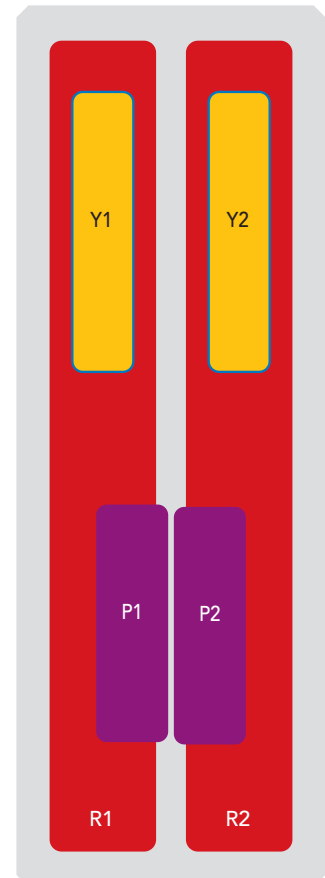
APXBBLLYY05B_43-AT2

BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE
■ R1	698-960 MHz	1-2	(2x) 4.3-10 Female
■ R2	698-960 MHz	3-4	(2x) 4.3-10 Female
■ Y1	1710-2690 MHz	5-6	(2x) 4.3-10 Female
■ Y2	1710-2690 MHz	7-8	(2x) 4.3-10 Female
■ P1	3300-3800 MHz	9-10	(2x) 4.3-10 Female
■ P2	3300-3800 MHz	11-12	(2x) 4.3-10 Female



The illustration is not shown to scale.

65°

590 mm

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MECHANICAL SPECIFICATIONS

Length		mm (in)	590 (23.2)
Width		mm (in)	499 (19.6)
Depth		mm (in)	199 (7.8)
Net Weight - Antenna Only		kg (lbs)	11.2 (24.7)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	198 (45)
	Side	N (lbf)	157 (35)
	Rear	N (lbf)	235 (53)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(12x) 4.3-10 Female at Bottom
Radome Color		---	Light Grey
Radome Material		---	Fiberglass
Lightning Protection		---	DC Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in)	845 x 595 x 295 (33.3 x 23.4 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

APXBBLLYY05B_43-CT2

APXBBLLYY05B_43-AT2

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>Refer to ordering options</i>	APM50-B1	4.5 kg (9.9 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) <i>Refer to ordering options</i>	APM50-B1N	3.4 kg (7.5 lbs)

INSTALLATION

Please read all installation notes before installing product.

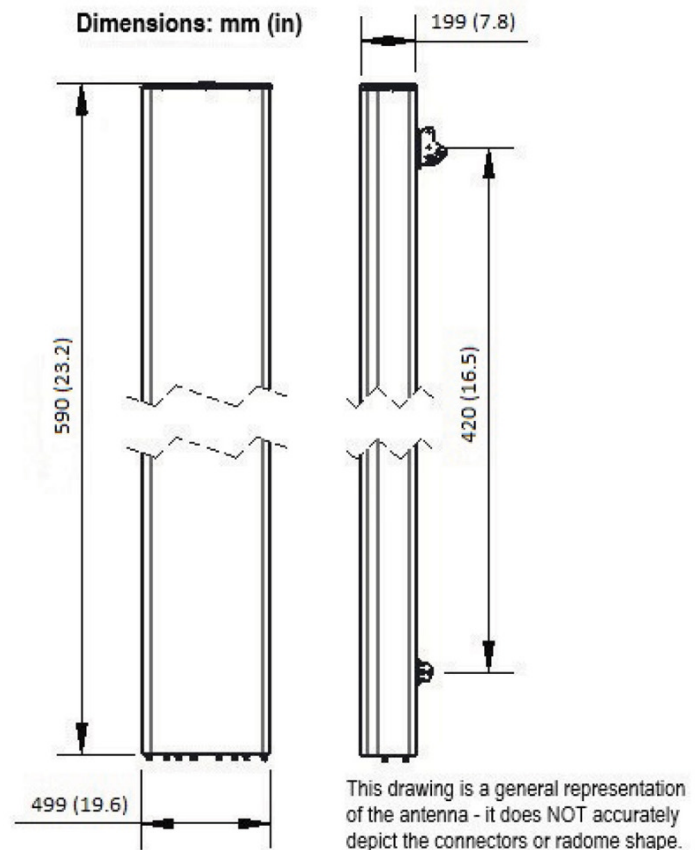


Always attach the antenna using all mounting points.

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](#)