

P3-BBUU4L26-N0

P3-BBUU4L26-S0

Features

- 4 ports / 2 cross pol systems in low band (694-960 MHz)
- 4 ports / 2 cross pol systems in high band (1427-2690 MHz)
- 8 ports / 4 cross pol systems in high band (1695-2690 MHz)
- Supports 4x4 MIMO
- Integrated and field replaceable SRET
- ACU HW version: HRL200608H1.00
- Compliant with AISG v2.0 and 3GPP
- Optimized radome for low windload



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 694-960		(2x) 1427-2690		(4x) 1695-2690			
	Array	<div></div> R1	<div></div> R2	<div></div> Y3	<div></div> Y4	<div></div> Y1	<div></div> Y2	<div></div> Y5	<div></div> Y6
	Connector	1-2	3-4	9-10	11-12	5-6	7-8	13-14	15-16
		16 PORTS							
	Polarization	XPOL							
	Azimuth Beamwidth (avg)	65°		65°		65°			
	Electrical Downtilt	2-12°		2-12°		2-12°			
	Dimensions	2750 x 469 x 205 mm (108.3 x 18.5 x 8.1 in)							

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
P3-BBUU4L26-N0 (Material Code: 500xxxxx)	ACU-I20-H12K Internal RET Included	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	58.4 kg (128.7 lbs)
P3-BBUU4L26-S0 (Material Code: 50016117)	ACU-X20 Internal RET Included Dynamic Site Sharing Mode	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	58.4 kg (128.7 lbs)
P3-BBUU4L26-S0 (Material Code: 50016477)	ACU-X20 Internal RET Included Static Site Sharing Mode	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	58.4 kg (128.7 lbs)

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ELECTRICAL SPECIFICATIONS

R1

Frequency Range		MHz	694-960		
		MHz	694-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.3 ± 0.4	15.7 ± 0.4	16.2 ± 0.6
	Max Gain	dBi	15.7	16.1	16.8
Azimuth Beamwidth (3 dB)		degrees	79.6° ± 9.7°	69.1° ± 13.7°	58.2° ± 6.3°
Elevation Beamwidth (3 dB)		degrees	9.3° ± 0.9°	8.2° ± 0.7°	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	20.5	21.9	22.5
First Upper Side Lobe Suppression		dB	17.1	17.4	15.6
Cross Polar Discrimination Over Sector		dB	11.7	8.8	7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.8	24.9	25
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	25		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

R2

Frequency Range		MHz	694-960		
		MHz	694-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.5 ± 0.3	15.7 ± 0.3	15.9 ± 0.3
	Max Gain	dBi	15.8	16	16.2
Azimuth Beamwidth (3 dB)		degrees	71° ± 6.1°	63.9° ± 7.4°	58.8° ± 7.1°
Elevation Beamwidth (3 dB)		degrees	8.7° ± 0.4°	8° ± 0.6°	7.3° ± 0.4°
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	21.4	22.2
First Upper Side Lobe Suppression		dB	13.9	16.7	17.7
Cross Polar Discrimination Over Sector		dB	10.3	8.2	6.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.6	30.9	25.6
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	25		

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P3-BBUU4L26-S0

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	16.5 ± 0.6	17 ± 0.6	17.4 ± 0.9	17.4 ± 0.5	17.7 ± 0.6
	Max Gain	dBi	17.1	17.6	18.3	17.9	18.3
Azimuth Beamwidth (3 dB)		degrees	67.2° ± 6.6°	61.9° ± 7°	57.6° ± 6.2°	60.8° ± 6.7°	59.2° ± 8°
Elevation Beamwidth (3 dB)		degrees	6.7° ± 0.5°	6.1° ± 0.3°	5.8° ± 0.4°	5.3° ± 0.3°	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	21	19.4	20.4	20.8	21.2
First Upper Side Lobe Suppression		dB	18.2	17.9	18.1	18.8	20.2
Cross Polar Discrimination Over Sector		dB	7.6	5.6	2.6	5	1.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.7	25.2	17	15.8	17.7
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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	16.2 ± 0.8	16.7 ± 0.4	17.1 ± 0.7	17.1 ± 0.3	17.7 ± 0.5
	Max Gain	dBi	17	17.1	17.8	17.4	18.2
Azimuth Beamwidth (3 dB)		degrees	69.4° ± 7.7°	62.8° ± 5.3°	57.7° ± 6.5°	60.9° ± 4.6°	59.2° ± 5.7°
Elevation Beamwidth (3 dB)		degrees	6.6° ± 0.5°	6.1° ± 0.3°	5.7° ± 0.4°	5.3° ± 0.2°	4.8° ± 0.4°
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	19.2	21.9	22.5	23.6	23
First Upper Side Lobe Suppression		dB	16.9	17.8	17.9	19.1	19.8
Cross Polar Discrimination Over Sector		dB	6.1	2.7	1.2	4.1	1.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.7	19.7	19.3	20.9	23.1
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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ELECTRICAL SPECIFICATIONS

Y3

Frequency Range		MHz	1427-2690				
		MHz	1427-1518	1695-1880	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15.8 ± 0.6	17.3 ± 0.7	17.8 ± 0.8	17.5 ± 0.4	17.3 ± 0.5
	Max Gain	dBi	16.4	18	18.6	17.9	17.8
Azimuth Beamwidth (3 dB)		degrees	54.3° ± 6°	56.4° ± 7.3°	60.1° ± 6.2°	61.8° ± 2.9°	61.6° ± 6.6°
Elevation Beamwidth (3 dB)		degrees	8.4° ± 0.5°	6.8° ± 0.4°	6° ± 0.4°	5.4° ± 0.2°	5° ± 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	20.4	26	26.8	27.4	27.2
First Upper Side Lobe Suppression		dB	16.4	15.4	15	15.3	12.9
Cross Polar Discrimination Over Sector		dB	8.3	12.8	6.6	0.5	0.7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20.9	18.9	16.3	21.5	20.5
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

Y4

Frequency Range		MHz	1427-2690				
		MHz	1427-1518	1695-1880	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16 ± 0.3	16.9 ± 0.8	17.5 ± 0.6	17.2 ± 0.4	17 ± 0.4
	Max Gain	dBi	16.3	17.7	18.1	17.6	17.4
Azimuth Beamwidth (3 dB)		degrees	55.3° ± 3.1°	62.3° ± 9.3°	58.3° ± 4.2°	61.5° ± 3.2°	64.7° ± 4.1°
Elevation Beamwidth (3 dB)		degrees	8° ± 0.4°	6.6° ± 0.4°	5.9° ± 0.3°	5.4° ± 0.2°	5.1° ± 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	22.2	27.3	27.7	26.4	26.3
First Upper Side Lobe Suppression		dB	13	15.8	16.5	15.3	15.2
Cross Polar Discrimination Over Sector		dB	10.2	14	7.8	0.6	0.7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	23.1	20.5	18.8	22.1	22.9
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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ELECTRICAL SPECIFICATIONS

Y5

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 ± 0.5	17.1 ± 0.5	17.4 ± 0.7	17.3 ± 0.3	17.7 ± 0.4
	Max Gain	dBi	16.9	17.6	18.1	17.6	18.1
Azimuth Beamwidth (3 dB)		degrees	69.3° ± 5.6°	63° ± 7.8°	58.1° ± 6.5°	64.6° ± 7.5°	60.3° ± 6.1°
Elevation Beamwidth (3 dB)		degrees	6.8° ± 0.4°	6.3° ± 0.4°	5.8° ± 0.5°	5.3° ± 0.3°	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	22.2	22.7	22.4	20.5	22.1
First Upper Side Lobe Suppression		dB	18	16.3	15.3	18.5	19.3
Cross Polar Discrimination Over Sector		dB	8.5	6.9	1.8	3	1.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	26.7	24.1	18.5	17.1	17.4
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

Y6

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.2 ± 0.6	16.7 ± 0.6	17.1 ± 0.7	17.1 ± 0.3	17.7 ± 0.5
	Max Gain	dBi	16.8	17.3	17.8	17.4	18.2
Azimuth Beamwidth (3 dB)		degrees	70.9° ± 5.5°	63.8° ± 5.4°	58° ± 7.3°	61.7° ± 3.7°	59.7° ± 4.1°
Elevation Beamwidth (3 dB)		degrees	6.6° ± 0.5°	6.1° ± 0.3°	5.7° ± 0.4°	5.3° ± 0.2°	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	20.5	22	22.1	22.9	23.5
First Upper Side Lobe Suppression		dB	16.1	16.2	17.9	18.3	21.1
Cross Polar Discrimination Over Sector		dB	7.8	6	1.8	4.5	0.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21.1	21.7	22.8	28.9	25
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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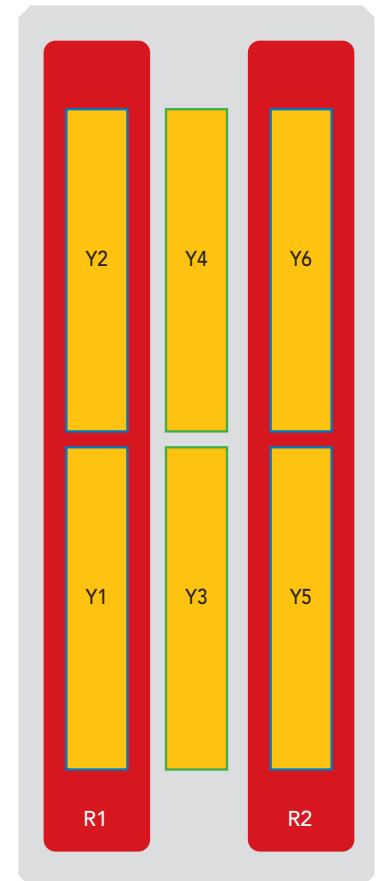
BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	694-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
■ R2	694-960 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
■ Y3	1427-2690 MHz	9-10	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxx-Y3
■ Y4	1427-2690 MHz	11-12	(2x) 4.3-10 Female	Y4	RFxxxxxxxxxx-Y4
■ Y5	1695-2690 MHz	13-14	(2x) 4.3-10 Female	Y5	RFxxxxxxxxxx-Y5
■ Y6	1695-2690 MHz	15-16	(2x) 4.3-10 Female	Y6	RFxxxxxxxxxx-Y6

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)	2750 (108.3)
Width		mm (in)	469 (18.5)
Depth		mm (in)	205 (8.1)
Net Weight - Antenna Only		kg (lbs)	42 (92.6)
Net Weight - Mounting Hardware Only		kg (lbs)	9 (19.8)
Wind Load Rated at 150 km/h (93 mph)	Frontal, Resultant	N (lbf)	763 (172)
	Side, Resultant	N (lbf)	792 (178)
	Rear, Resultant	N (lbf)	795 (179)
	Maximum, Resultant	N (lbf)	1269 (285)
	Maximum, Drag Force	N (lbf)	1009 (227)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(16x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom
Radome Color		---	Light Grey
Radome Material		---	Fiberglass
Lightning Protection		---	DC Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in)	2930 x 544 x 330 (115.4 x 21.4 x 13)
	Shipping Weight	kg (lbs)	58.4 (128.7)

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)

INSTALLATION

Please read all installation notes before installing product.

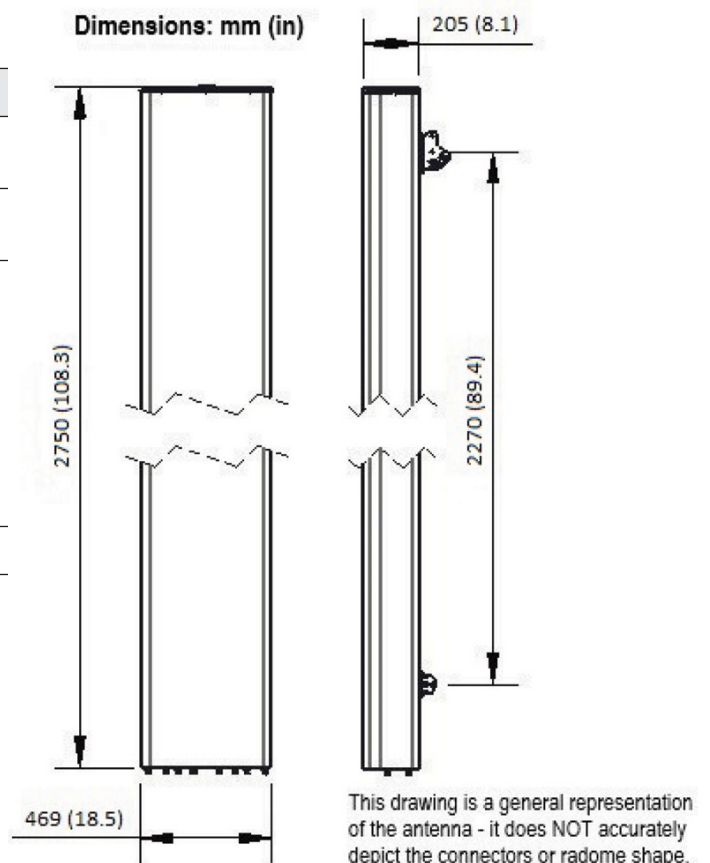


Always attach the antenna using all mounting points.

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](#)