P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

Features

- 4 ports / 2 cross pol systems in low band (694-960 MHz)
- 8 ports / 4 cross pol systems in very wide high band (1427-2690 MHz)
- Integrated and field replaceable SRET, site sharing support
- Optional with Site Sharing feature (Model name suffix -I0, -I0N)
- Optional with Direct Pipe No Tilt mounting hardware (Model name suffix -J0N, -I0N)
- Compliant with AISG v2.0 and 3GPP
- Optimized radome for low windload

PRODUCT OVERVIEW							
	Frequency Range (MHz)	(2x) 694-960		(4x) 1427-2690			
	Array	R1	R2	Y1	Y2	Y3	Y4
	Connector	1-2	3-4	5-6	7-8	9-10	11-12
		12 PORTS					
	Polarization	XPOL					
	Azimuth Beamwidth (avg)	65°		65°			
	Electrical Downtilt	2-12°		2-12°			
	Dimensions	2749 x 369 x 206 mm (108.2 x 14.5 x 8.1 in)					

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
P2-BB4U26-J0	ACU-X20N Internal RET Included	APM40-2 Beam Tilt Kit Included	60-120 mm (2.4-4.7 in)	51.3 kg (113.1 lbs)	3.9 kg (8.6 lbs)
P2-BB4U26-J0N	ACU-X20N Internal RET Included	APM40-1 Direct Pipe No Tilt Mounting Kit Included	60-120 mm (2.4-4.7 in)	50.6 kg (111.5 lbs)	3.2 kg (7 lbs)
P2-BB4U26-I0	ACU-X20 Internal RET for Site Sharing Included	APM40-2 Beam Tilt Kit Included	60-120 mm (2.4-4.7 in)	51.3 kg (113.1 lbs)	3.9 kg (8.6 lbs)
P2-BB4U26-I0N	ACU-X20 Internal RET for Site Sharing Included	APM40-1 Direct Pipe No Tilt Mounting Kit Included	60-120 mm (2.4-4.7 in)	50.6 kg (111.5 lbs)	3.2 kg (7 lbs)

P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

ELECTRICAL SPECIFICATIONS

			■ R1		
Frequency Range		MHz	694-960		
		MHz	694-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.1 ± 0.6	15.5 ± 0.5	16.1 ± 0.5
	Max Gain	dBi	15.7	16.0	16.6
Azimuth Beamwidth (3 dB)		degrees	67.3° ± 8.9°	63.9° ± 7°	55.8° ± 5.2°
Elevation Beamwidth (3 dB)		degrees	8.7° ± 0.7°	7.9° ± 0.5°	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	19.5	22.4	22.8
First Upper Side Lobe Suppression		dB	17.2	19	17.2
Cross Polar Discrimination Over Sector		dB	10.5	9.5	8.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20.8	21	22.9
Maximum Effective Power Per Port		Watts	300 W		
Cross Polar Isolation		dB	25		
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	15.1 ± 0.4	15.6 ± 0.5	16.2 ± 0.4
	Max Gain	dBi	15.5	16.1	16.6
Azimuth Beamwidth (3 dB)		degrees	68.6° ± 9.5°	64.3° ± 7.5°	55.9° ± 5.4°
Elevation Beamwidth (3 dB)		degrees	8.7° ± 0.6°	8.0° ± 0.5°	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	19.6	22.8	23.1
First Upper Side Lobe Suppression		dB	17.8	20.2	19.7
Cross Polar Discrimination Over Sector		dB	11	10	8.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.5	20.8	21.5
Maximum Effective Power Per Port		Watts	300 W		
Cross Polar Isolation		dB	25		
Interband Isolation		dB	25		

Specifications follow BASTA guidelines.

P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

ELECTRICAL SPECIFICATIONS

■ **Y1**

Frequency Range		MHz	1427-2690				
		MHz	1427-1518	1695-1880	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15.3 ± 0.6	16.1 ± 0.8	17.3 ± 1.0	18 ± 0.5	18 ± 0.6
	Max Gain	dBi	15.9	16.9	18.3	18.5	18.6
Azimuth Beamwidth (3 dB)		degrees	63.1° ± 5.4°	62.1° ± 6.0°	60.8° ± 6.4°	52.3° ± 2.2°	53.1° ± 5.6°
Elevation Beamwidth (3 dB)		degrees	8.9° ± 0.8°	7.8° ± 0.8°	6.8° ± 0.7°	5.7° ± 0.4°	5.3° ± 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	23.4	22.8	24	22.7	20.3
First Upper Side Lobe Suppression		dB	14.8	14.4	15	18	17.5
Cross Polar Discrimination Over Sector		dB	8.3	4.5	4.8	1.1	1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.5	16.8	15.1	15.1	18.9
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	1427-2690				
		MHz	1427-1518	1695-1880	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15.5 ± 0.4	16 ± 0.8	16.9 ± 0.8	17.4 ± 0.4	17.6 ± 0.6
	Max Gain	dBi	15.9	16.8	17.7	17.8	18.2
Azimuth Beamwidth (3 dB)		degrees	62.2° ± 4.6°	63.3° ± 4.3°	59.4° ± 6.6°	53.4° ± 2.8°	56° ± 8.2°
Elevation Beamwidth (3 dB)		degrees	8.6° ± 0.6°	7.7° ± 0.6°	6.8° ± 0.8°	5.8° ± 0.3°	5.4° ± 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	21.4	22.4	21.6	21.9	20.3
First Upper Side Lobe Suppression		dB	18.9	19.3	17	16.1	16.1
Cross Polar Discrimination Over Sector		dB	10.2	6.6	3.6	0.5	0.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	16.4	18.2	18.1	19	17.4
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

Specifications follow BASTA guidelines.

P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

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	15.4 ± 0.5	16 ± 1.1	17.4 ± 0.9	17.9 ± 0.6	18 ± 0.6
	Max Gain	dBi	15.9	17.1	18.3	18.5	18.6
Azimuth Beamwidth (3 dB)		degrees	64.7° ± 4.5°	65.7° ± 5.5°	59.7° ± 5.8°	52.9° ± 3.4°	52.6° ± 6.2°
Elevation Beamwidth (3 dB)		degrees	9.1° ± 0.7°	7.8° ± 0.7°	6.7° ± 0.6°	5.6° ± 0.4°	5.4° ± 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	22	22.2	23.2	24.2	22.1
First Upper Side Lobe Suppression		dB	15.6	15.7	15.2	17.8	18.6
Cross Polar Discrimination Over Sector		dB	9.1	4.9	3.3	1.2	0.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.2	14.3	17.1	15.6	20.2
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

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	15.3 ± 0.5	15.8 ± 0.9	16.8 ± 0.8	17.3 ± 0.5	17.6 ± 0.6
	Max Gain	dBi	15.8	16.7	17.6	17.8	18.2
Azimuth Beamwidth (3 dB)		degrees	63.6° ± 3.5°	63.5° ± 4.8°	58.8° ± 5.5°	54.1° ± 2.9°	56.2° ± 7.6°
Elevation Beamwidth (3 dB)		degrees	8.9° ± 0.8°	7.8° ± 0.6°	6.8° ± 0.8°	5.7° ± 0.3°	5.3° ± 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	19.3	22	23.4	21.5	20.9
First Upper Side Lobe Suppression		dB	19.1	19.7	16.5	16.4	16
Cross Polar Discrimination Over Sector		dB	8.8	5.9	4.5	0.9	0.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.6	17.8	19.4	18.8	18.8
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

Specifications follow BASTA guidelines.

P2-BB4U26-J0

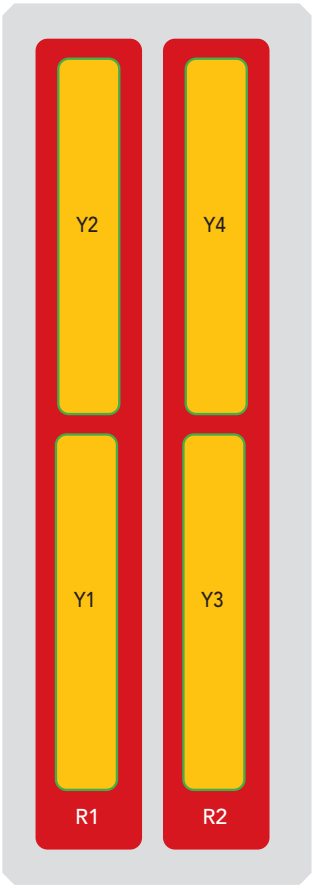
P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

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	RFxxxxxxxxxxx-R1
R2	694-960 MHz	3-4	(2x) 4.3-10 Female	R2	RFxxxxxxxxxxx-R2
Y1	1427-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxxx-Y1
Y2	1427-2690 MHz	7-8	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxxx-Y2
Y3	1427-2690 MHz	9-10	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxxx-Y3
Y4	1427-2690 MHz	11-12	(2x) 4.3-10 Female	Y4	RFxxxxxxxxxxx-Y4

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



The illustration is not shown to scale.

P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

MECHANICAL SPECIFICATIONS

Length		mm (in)	2749 (108.2)
Width		mm (in)	369 (14.5)
Depth		mm (in)	206 (8.1)
Net Weight - Antenna Only		kg (lbs)	41.3 (91)
Wind Load Rated at 150 km/h (93 mph)	Frontal, Resultant	N (lbf)	487 (109)
	Side, Resultant	N (lbf)	604 (136)
	Rear, Resultant	N (lbf)	618 (139)
	Maximum, Resultant	N (lbf)	990 (223)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	220 (150)
Connector Type		--	(12x) 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)	2982 x 442 x 340 (117.4 x 17.4 x 13.4)

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

P2-BB4U26-J0

P2-BB4U26-J0N, P2-BB4U26-I0, P2-BB4U26-I0N

ACCESSORIES Accessories may be ordered separately unless otherwise indicated.

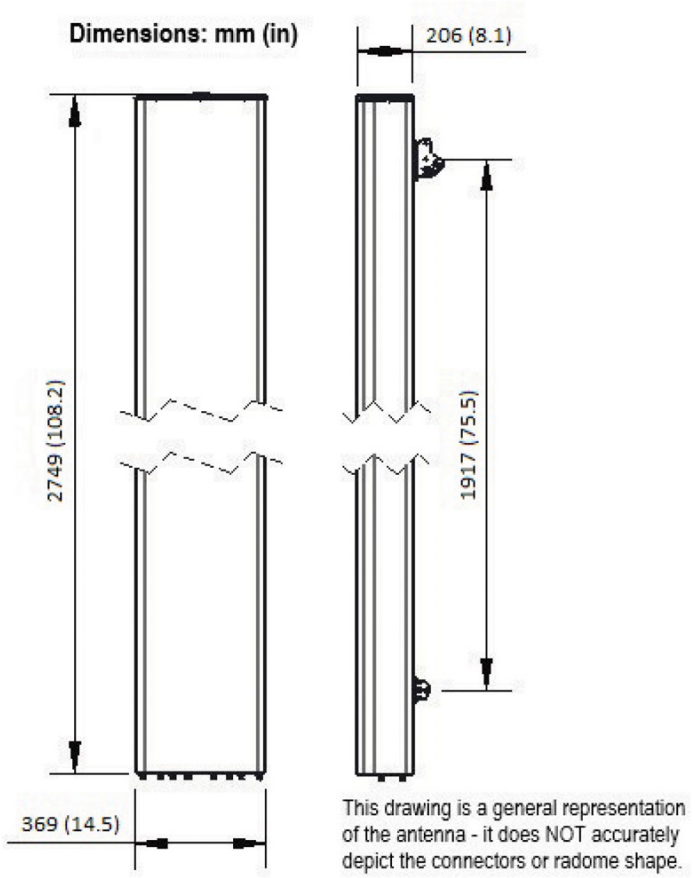
ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 60-120 mm (2.4-4.7 in) *Refer to ordering options*	APM40-2	3.9 kg (8.6 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 60-120 mm (2.4-4.7 in) *Refer to ordering options*	APM40-1	3.2 kg (7 lbs)

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

APM40 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