PRODUCT DATASHEET

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

FEATURES / BENEFITS

- 4 ports / 2 cross pol systems in low band (690-960MHz)
- 8 ports / 4 cross pol systems in high band (1695-2690MHz)
- Supporting 4x4 MIMO in low band and high band
- Integrated and field replaceable SRET.
- Dual primary support for antenna sharing.
  - Both dynamic and static site sharing modes are offered as default factory settings (see ordering information for more details).
  - Site sharing mapping is reconfigurable remotely.
- 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.

Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Array (690-960 MHz) [R1]		
Frequency Band	MHz	690 - 806	790 - 894	880 - 960
Gain Typical	dBi	16.9	17.2	17.1
Gain Over all Tilts	dBi	16.6 +/- 0.3	16.8 +/- 0.4	16.8 +/- 0.3
Azimuth Beamwidth 3dB	Deg	66.5 +/- 5.5	63.4 +/- 4.9	64.6 +/- 6.2
Elevation Beamwidth 3dB	Deg	8.3 +/- 0.5	7.8 +/- 0.4	7.2 +/- 0.4
Cross Polar Discrimination at Boresight	dB	26.9	28.3	27.6
Cross Polar Discrimination over Sector	dB	11.6	9.4	7.6
F/B at +/-30deg Total Power	dB	19.4	22.3	23.2
First Upper Side Lobe Suppression	dB	16.1	16.8	17.2
Electrical Downtilt	Deg	2 to 12		
Cross Polar Isolation	dB	26		
Interband Isolation	dB	26		
VSWR	-	1.5		
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153		
Maximum Effective Power per Port	Watt	250		

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Low Band Array (690-960 MHz) [R2]		
Frequency Band	MHz	690 - 806	790 - 894	880 - 960
Gain Typical	dBi	16.7	17.1	17.1
Gain Over all Tilts	dBi	16.4 +/- 0.3	16.7 +/- 0.4	16.7 +/- 0.4
Azimuth Beamwidth 3dB	Deg	65.1 +/- 5.4	61.9 +/- 4	63.3 +/- 5.5
Elevation Beamwidth 3dB	Deg	8.3 +/- 0.4	7.7 +/- 0.4	7.2 +/- 0.4
Cross Polar Discrimination at Boresight	dB	25.5	31.1	26.1
Cross Polar Discrimination over Sector	dB	10.9	9.1	7.7
F/B at +/-30deg Total Power	dB	19.7	22.6	23
First Upper Side Lobe Suppression	dB	15.8	17.3	15.7
Electrical Downtilt	Deg	2 to 12		
Cross Polar Isolation	dB	26		
Interband Isolation	dB	26		
VSWR	-	1.5		
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153		
Maximum Effective Power per Port	Watt	250		

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Arrays at Bottom (1695-2690 MHz) [Y1]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.3	17.7	18.1	17.9	17.8
Gain Over all Tilts	dBi	16.5 +/- 0.8	17.3 +/- 0.4	17.5 +/- 0.6	17.4 +/- 0.5	17.2 +/- 0.6
Azimuth Beamwidth 3dB	Deg	67.8 +/- 6.7	61.9 +/- 5.6	60.6 +/- 6.3	56.7 +/- 5.2	55.4 +/- 6.8
Elevation Beamwidth 3dB	Deg	6.7 +/- 0.6	6.2 +/- 0.2	5.9 +/- 0.5	5.3 +/- 0.3	4.8 +/- 0.2
Cross Polar Discrimination at Boresight	dB	15.3	16.1	16.4	15.7	19.6
Cross Polar Discrimination over Sector	dB	7.5	3.9	3.5	0.6	0.4
F/B at +/-30deg Total Power	dB	21.9	22.3	22.4	23.7	23.6
First Upper Side Lobe Suppression	dB	16.1	15.5	15.4	17.3	17.1
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Arrays at Bottom (1695-2690 MHz) [Y2]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.2	17.5	18	17.3	17.4
Gain Over all Tilts	dBi	16.5 +/- 0.7	17.1 +/- 0.4	17.4 +/- 0.6	16.9 +/- 0.4	16.9 +/- 0.5
Azimuth Beamwidth 3dB	Deg	69.7 +/- 4.1	63.8 +/- 5.6	60.8 +/- 4.4	57.9 +/- 4.2	58.8 +/- 4.5
Elevation Beamwidth 3dB	Deg	6.5 +/- 0.4	6.1 +/- 0.3	5.7 +/- 0.5	5.2 +/- 0.3	4.8 +/- 0.3
Cross Polar Discrimination at Boresight	dB	17.5	22.8	22.5	17.2	19.3
Cross Polar Discrimination over Sector	dB	6.2	8.3	3.8	2.5	0.7
F/B at +/-30deg Total Power	dB	27.6	24.9	26.3	26.3	26.4
First Upper Side Lobe Suppression	dB	15.9	16.2	15	17.5	17.7
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Arrays at Top (1695-2690 MHz) [Y3]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.4	17.6	18	18	17.9
Gain Over all Tilts	dBi	16.6 +/- 0.8	17.2 +/- 0.4	17.4 +/- 0.6	17.4 +/- 0.6	17.3 +/- 0.6
Azimuth Beamwidth 3dB	Deg	67.3 +/- 5.4	64.9 +/- 4.7	62.4 +/- 7.1	55.8 +/- 4.5	55 +/- 6.6
Elevation Beamwidth 3dB	Deg	6.7 +/- 0.5	6.2 +/- 0.3	5.8 +/- 0.5	5.3 +/- 0.4	4.8 +/- 0.2
Cross Polar Discrimination at Boresight	dB	17.2	19	18.1	17.8	20.5
Cross Polar Discrimination over Sector	dB	5.9	5.7	4.3	2.2	0.6
F/B at +/-30deg Total Power	dB	23.4	23.6	24	25	24
First Upper Side Lobe Suppression	dB	16.6	14.5	14.3	17.1	16.8
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		High Band Arrays at Bottom (1695-2690 MHz) [Y4]				
Frequency Band	MHz	1695 - 1880	1850 - 1990	1920 - 2170	2300 - 2400	2490 - 2690
Gain Typical	dBi	17.1	17.5	18	17.2	17.3
Gain Over all Tilts	dBi	16.5 +/- 0.6	17.1 +/- 0.4	17.4 +/- 0.6	16.8 +/- 0.4	16.8 +/- 0.5
Azimuth Beamwidth 3dB	Deg	69.3 +/- 4.4	63.5 +/- 5.9	60.5 +/- 4	58 +/- 4.6	57.9 +/- 4.8
Elevation Beamwidth 3dB	Deg	6.6 +/- 0.4	6.1 +/- 0.3	5.7 +/- 0.5	5.2 +/- 0.3	4.9 +/- 0.3
Cross Polar Discrimination at Boresight	dB	17.7	22.1	22.1	19.5	19.8
Cross Polar Discrimination over Sector	dB	6.2	8.6	3.6	2.5	0.5
F/B at +/-30deg Total Power	dB	25.8	25.1	25.1	25.7	26.2
First Upper Side Lobe Suppression	dB	16.5	17.3	16.4	15.3	15.8
Electrical Downtilt	Deg	2 to 12				
Cross Polar Isolation	dB	26				
Interband Isolation	dB	28				
VSWR	-	1.5				
Passive Intermodulation (3rd Order, 2 x 43dBm)	dBc	-153				
Maximum Effective Power per Port	Watt	200				

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	2750 x 469 x 205 (108.3 x 18.5 x 8.1)
Weight (Antenna Only)	kg (lb)	39 (86)
Packing size- HxWxD	mm (in)	2930 x 544 x 330 (115.4 x 21.4 x 13)
Connector type		12 x 4.3-10 female/bottom + 2x AISG connectors (1 male, 1 female), (Site Sharing) 4x AISG connectors (2 male, 2 female)
Radome Material / Color		Fiber Glass / Light Grey RAL7035

TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 60 (-40 to 140)
Lightning protection		Direct Ground
Survival/Rated Wind Velocity	km/h	200 (150)
Wind Load @Rated Wind Front	N	763
Wind Load @Rated Wind Side	N	792
Wind Load @Rated Wind Rear	N	795

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional

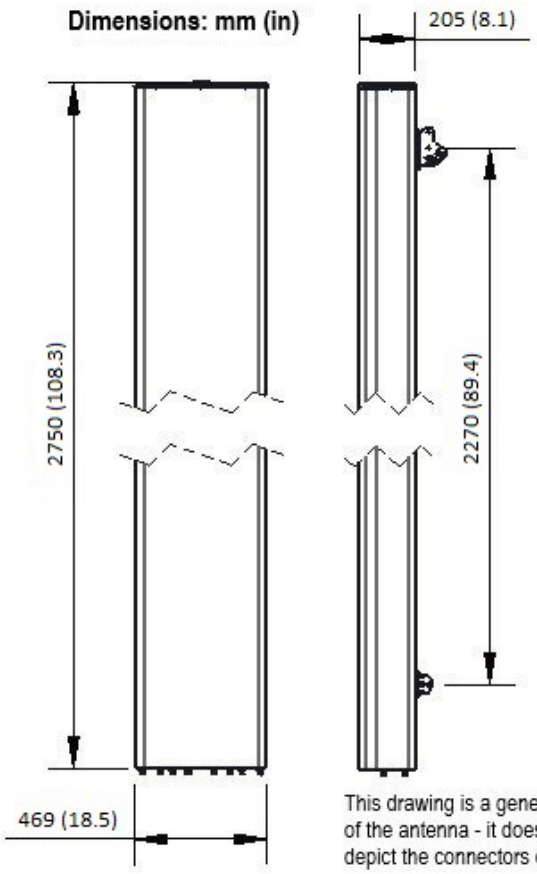
ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting Pipe Diameter	Shipping Weight kg(lb)	Mounting Hardware Weight kg(lb)
APXVBB4L26H2_43-C-I20	Internal RET(ACU-I20-H12J)	APM50-HS	50-125mm	55.1 (121.5)	9.0 (19.8)
APXVBB4L26H2_43-A-I20	Internal RET(ACU-I20-H12J)	APM50-HSN (Direct Pipe no tilt)	50-125mm	52.1 (114.9)	6.0 (13.2)
APXVBB4L26H2_43-C-I20S	Internal Site Sharing RET(ACU-X20H)	APM50-HS	50-125mm	55.2 (121.7)	9.0 (19.8)
APXVBB4L26H2_43-A-I20S	Internal Site Sharing RET(ACU-X20H)	APM50-HSN (Direct Pipe no tilt)	50-125mm	52.2 (115.1)	6.0 (13.2)

Port	Array	Frequency	RET	AISG RET UID
1	R1	690-960 MHz	R1	RFxxxxxxxxxxx-R1
2				
3	R2	690-960 MHz	R2	RFxxxxxxxxxxx-R2
4				
5	Y1	1695-2690 MHz	Y1	RFxxxxxxxxxxx-Y1
6				
7	Y2	1695-2690 MHz	Y2	RFxxxxxxxxxxx-Y2
8				
9	Y3	1695-2690 MHz	Y3	RFxxxxxxxxxxx-Y3
10				
11	Y4	1695-2690 MHz	Y4	RFxxxxxxxxxxx-Y4
12				

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

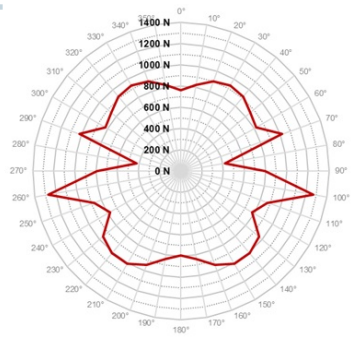
Dimensions: mm (in)



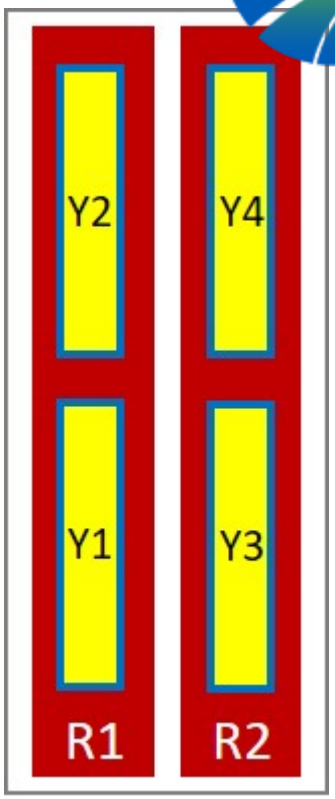
This drawing is a general representation of the antenna - it does NOT accurately depict the connectors or radome shape.

APXVBB4L26H2_43-C-I20, -A-I20, -C-I20S, -A-I20S

12-Ports, X-Pol, Panel Antenna, 2.6m, 2x 690-960/4x 1695-2690MHz, 65deg, Integrated RET, Site Sharing Optional



Rated Wind Speed, Km/h	150
Wind Load Frontal, Resultant, N	763
Wind Load Side, Resultant, N	792
Wind Load Rear, Resultant, N	795
Wind Load Maximum, Resultant, N	1269
Wind Load Maximum, Drag Force, N	1009



External Document Links

APM50_Series_Installation_Instructions

Notes

- All electrical parameters are compliant with NGMN P-BASTA 12 requirements.
- For additional mounting information please click "External Document Links".
- **Radiating patterns:** Request pattern files