



FEATURES / BENEFITS

This antenna provides an ideal solution using 4 columns (8 Ports) for flexible use in Beamforming and MIMO applications in the TD-LTE band.



- Multiple Individual Beam Control (Unit Beam)
- Single High Powered Beam Option (Broadcast Beam)
- Beamsteering flexibility up to 30° off Boresight (Service Beam)
- Calibration Port functionality for precise steering performance
- Integrated AISG compliant RET Motor
- Variable electrical down tilt 0-6 degrees

Technical features

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Y1 Unit Beam Left
Frequency Band	MHz	2496 - 2690
Gain	dBi(dBd)	18.0 (15.9) +/- .4
Azimuth Beamwidth 3dB	deg	69.3 +/- 4.5
Cross Polar Discrimination at Boresight	dB	>16.8
Cross Polar Discrimination over Sector	dB	>11.2
F/B at +/-30 Copolar	dB	>27.5
Elevation Beamwidth 3 dB	deg	5 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>18.9

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Y2 Unit Beam Left Center
Frequency Band	MHz	2496 - 2690
Gain	dBi(dBd)	18.0 (15.9) +/- .6
Azimuth Beamwidth 3dB	deg	68.3 +/- 6.7
Cross Polar Discrimination at Boresight	dB	>15.1
Cross Polar Discrimination over Sector	dB	>11.7
F/B at +/-30 Copolar	dB	>29.2
Elevation Beamwidth 3 dB	deg	4.8 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>17.4



ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Y3 Unit Beam Right Center
Frequency Band	MHz	2496 - 2690
Gain	dBi(dBd)	18.0 (15.9) +/- .5
Azimuth Beamwidth 3dB	deg	69.4 +/- 6.7
Cross Polar Discrimination at Boresight	dB	>14.6
Cross Polar Discrimination over Sector	dB	>11.5
F/B at +/-30 Copolar	dB	>29.5
Elevation Beamwidth 3 dB	deg	4.9 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>17.2

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		Y4 Unit Beam Right
Frequency Band	MHz	2496 - 2690
Gain	dBi(dBd)	17.8 (15.7) +/- .6
Azimuth Beamwidth 3dB	deg	69.1 +/- 4.7
Cross Polar Discrimination at Boresight	dB	>17
Cross Polar Discrimination over Sector	dB	>12.6
F/B at +/-30 Copolar	dB	>27.4
Elevation Beamwidth 3 dB	deg	4.8 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>16.9

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		BROADCAST BEAM
Frequency Band	MHz	2496 - 2690
Gain	dBi(dBd)	18.5 (16.4) +/- .8
Azimuth Beamwidth 3dB	deg	67.7 +/- 3.7
Cross Polar Discrimination at Boresight	dB	>16.7
Cross Polar Discrimination over Sector	dB	>9.9
F/B at +/-30 Copolar	dB	>28
Elevation Beamwidth 3 dB	deg	4.8 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>16.4

**ELECTRICAL SPECIFICATIONS**

Electrical Specification Header		SERVICE BEAM
Frequency Band	MHz	2496 - 2690
Gain @ Steer 00	dBi(dBd)	23.6 (21.5) +/- .5
Gain @ Steer 30	dBi(dBd)	21.5 (19.4) +/- .5
Azimuth Beamwidth 3dB	deg	19.7 +/- 0.6
Azimuth Sidelobe @ Steer 00	dB	>12
Azimuth Sidelobe @ Steer 30	dB	>6
Cross Polar Discrimination at Boresight	dB	>15.9
Cross Polar Discrimination over Sector	dB	>12.8
F/B at +/-30 Copolar	dB	>36.4
Elevation Beamwidth 3 dB	deg	4.8 +/- 0.2
Electrical Downtilt	deg	0 to 6
Upper SideLobe Suppression 0 to +20	dB	>18.7

ELECTRICAL SPECIFICATIONS

Electrical Specification Header		CALIBRATION & ELECTRICAL PARAMETERS
Frequency Range	MHz	2496-2690
Transmission from antenna ports to CAL port	dB	26.0 +/-2
Amplitude Diff Between antenna port and CAL port	dB	<0.7
Phase Diff Between antenna port and CAL port	deg	<5
Same Polarization ISO	dB	>25 (typical)
Different Polarization ISO	dB	>28
3rd Order IMP @ 2 x 43 dBm	dBc	>143

ELECTRICAL SPECIFICATIONS

Impedance	Ohm	50
Polarization	Deg	±45°

MECHANICAL SPECIFICATIONS

Dimensions - H x W x D	mm (in)	1430 x 320 x 160 (56.3 x 12.6 x 6.3)
Weight (Antenna Only)	kg (lb)	25.5 (56.2)
Weight (Mounting Hardware only)	kg (lb)	5.2 (11.5)
Packing size- HxWxD	mm (in)	1550 x 440 x 300 (61 x 17.3 x 11.8)
Shipping Weight	kg (lb)	32.5 (71.6)
Connector type		8 x 4.1/9.5 DIN Female + 1 N - Female (Calibration Port)
Adjustment mechanism		Integrated RET solution AISG compliant
Mounting Hardware Material		Diecast Aluminium and Galvanized steel
Radome Material / Color		ASA / Light Grey RAL7035

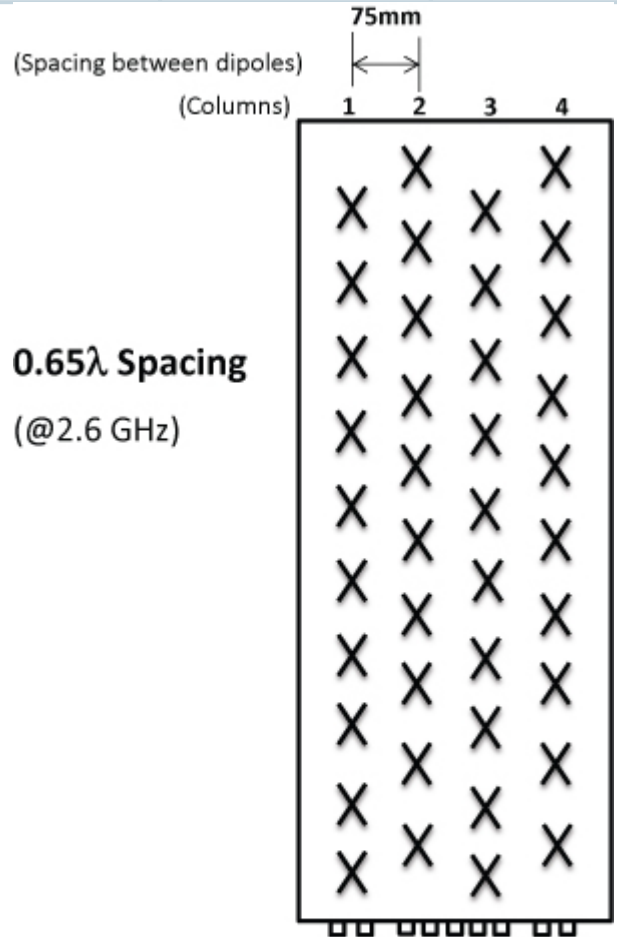
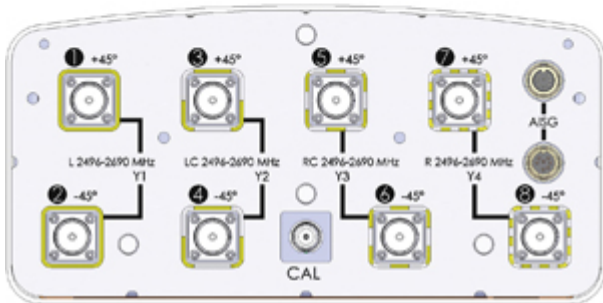


TESTING AND ENVIRONMENTAL

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	839
Wind Load @Rated Wind Side	N	361
Wind Load @Rated Wind Rear	N	839
Environmental		ETSI 300-019-2-4 Class 4.1E

ORDERING INFORMATION

Order No.	Configuration	Mounting Hardware	Mounting pipe Diameter	Weight
APXVTM14-C-I20	All non-ALU Port Configuration	APM40-2 Beam tilt kit	50-114mm	25.5kg (56.2)
APXVTM14-ALU-I20	ALU Radio Port Configuration	APM40-2 Beam tilt kit	50-114mm	25.5kg (56.2)





APXVTM14-C-I20

TD-LTE Beamforming Cross Polarized 8-port Antenna, 2496-2690MHz, 1.4m, 65deg, VET, RET, 0-6°

External Document Links

[APM40_Series_Installation_Instructions](#)

Notes

Please note: This antenna designed for compatibility with non f/ALU radio configurations. RET upgrades not available for APXVTM14-C-I20. See your local sales rep for any questions.

Available Configurations

- APXVTM14-C-I20 - 65° Antenna with Pre-commissioned, Integrated ACU
- APXV9TM14-C-I20 - 90° Antenna with Pre-commissioned, integrated ACU

For additional mounting information please click ""External Document Links"".

- **Radiating patterns:** [Request pattern files](#)