

MAXTENA, INC.
ANTENNA INNOVATIONS COMPANY
1715 PRATT DR., SUITE 2800
BLACKSBURG, VA 24060
1-877-MAXTENA (629-8362)
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# RadioMax<sup>TM</sup> - M1575CQA

Compact Quadrifilar Antenna for GPS L1 band (patent pending) "Preliminary" Product Specification





\*Actual Size

#### PRODUCT DESCRIPTION

The recently introduced Compact Quadrifilar Antenna is innovative GPS antenna offering the highest efficiency and the lowest axial ratio. Its compact size and ground–plane independence makes it ideal for integration in handsets. The M1575CQA directly connects to your RF transceiver chip without baluns or matching networks. You will have reduced part count, simpler integration process, and better performance. RadioMax<sup>TM</sup> technology reduces currents that are driven onto the ground plane making the antenna more immune to human exposure (better performance in handsets) and the M1575CQA is smaller and lower loss because the balun has been eliminated. Ask about adding FilterMax<sup>TM</sup> technology if you need more out-of-band rejection of undesired signals.

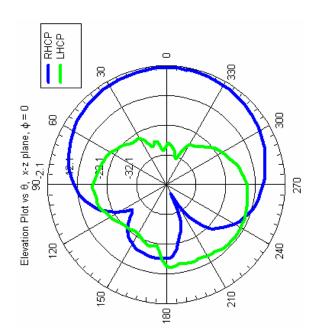
#### **SPECIFICATIONS**

	Min	Typical	Max	Unit
Frequency	1570.42	1575.42	1580.42	MHz
Polarization	Right-hand circular polarization			RHCP
Efficiency (with RadioMax <sup>TM</sup> )		38		% (total spherical)
Efficiency		32		% (total spherical)
Gain (with RadioMax <sup>TM</sup> )		-1.3		dBic
Gain		-2.3		dBic
Beamwidth (3dB)	140°			degrees (both axis)
Bandwidth		10		MHz
Cross Pole Rejection	15			dB
Axial Ratio			0.2	dB
Front to Back Ratio		15		dB
VSWR		1.3: 1		
Impedance (differential)		100		Ohms
<b>Overall Dimensions</b>	10 (	(diameter) x 20 (len	Mm	
<b>Operating Temperature</b>	-40	20	+85	°C

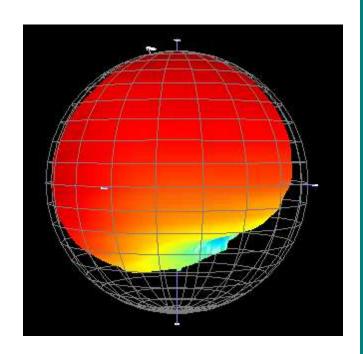


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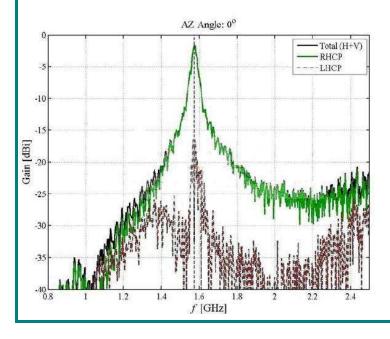
## RADIATION CHARACTERISTICS



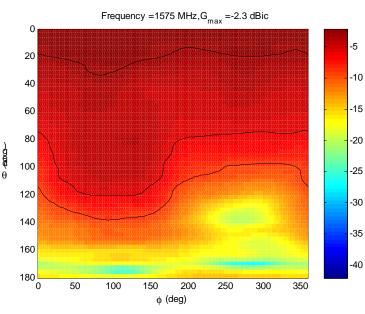
#### **3-D RADIATION PATTERN**



## M1575CQA OUT OF BAND REJECTION



# 2-D CONTOUR PLOT





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