



MAXTENA, INC.  
 ANTENNA INNOVATIONS COMPANY  
 1715 PRATT DR., SUITE 2800  
 BLACKSBURG, VA 24060  
 1-877-MAXTENA (629-8362)  
 INFO@MAXTENA.COM

## M1575CQA1020A

### Ceramic Quadrifilar Antenna for GPS L1 Band



#### PRODUCT DESCRIPTION

The recently introduced Ceramic Quadrifilar Antenna has been upgraded with active LNA and single-ended 50ohm standard interface offering the highest efficiency and the lowest axial ratio in its class. Its compact size and ground-plane independence coupled with 10MHz operating bandwidth make it ideal for integration into both commercial and military handsets. The M1575CQA1020A integrates LNA+SAW filter so you can have reduced parts count and better performance.

#### PRELIMINARY SPECIFICATIONS

	Min	Typical	Max	Unit
Frequency GPS L1	1570	1575.42	1580	MHz
Polarization		RHCP		
Efficiency (upper hemisphere)		32		%
Efficiency (total spherical)		45		%
Passive Gain		-2.5		dBic
Total Realized Gain	+10.5		+11	dBic
LNA Noise Figure		0.85		dB
LNA Input P1dB	-4		-2	dB
LNA DC Voltage	1.5		2.0	V
LNA DC Current	7.3		10.5	mA
Out of Band Rejection (800MHz)		55		dBc
Out of Band Rejection (1.9GHz)		45		dBc
Beamwidth (3dB)		140°		degrees (both axis)
Bandwidth (1dB)		10		MHz
Cross Pole Rejection		15		dB
Axial Ratio		0.5		dB
Front to Back Ratio		15		dB
Return Loss		-13		dB
Impedance		50		Ohms
Overall Dimensions	10 (diameter) x 20 (height)			mm
Operating Temperature	-40	20	+75	°C

