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M1575CQA713A Ceramic Quadrifilar Antenna for GPS L1 Band



PRODUCT DESCRIPTION

The World's smallest Ceramic Quadrifilar Antenna with active LNA and single-ended 50ohm standard interface offering the highest efficiency and lowest axial ratio in its class. Its ultra small size and ground-plane independence coupled with 10MHz operating bandwidth make it ideal for integration into both commercial and military handsets. The M1575CQA713A integrates LNA+SAW filter so you can have reduced parts count and better performance in your handset.

PRELIMINARY SPECIFICATIONS

| | Min | Typical | Max | Unit |
|--------------------------------|----------------------------|---------|------|---------------------|
| Frequency GPS L1 | 1570 | 1575.42 | 1580 | MHz |
| Polarization | | RHCP | | |
| Efficiency (upper hemisphere) | | 25 | | % |
| Efficiency (total spherical) | | 35 | | % |
| Passive Gain | | -3.5 | | dBi |
| Total Realized Gain | +9.5 | | +10 | dBi |
| 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 | 7 (diameter) x 13 (height) | | | mm |
| Operating Temperature | -40 | 20 | +75 | °C |

