

1.575GHz GPS Ceramic Chip Antenna

Pulse Part Number CW3009



Features

- Omnidirectional radiation
- Low profile
- Compact size WxLxH (10 x 3.2 x 4 mm)
- Low weight (600 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

- GPS L1 band
- 1.575 GHz

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on test board (GP) size and antenna positioning on GP and Ground Clearance area size.

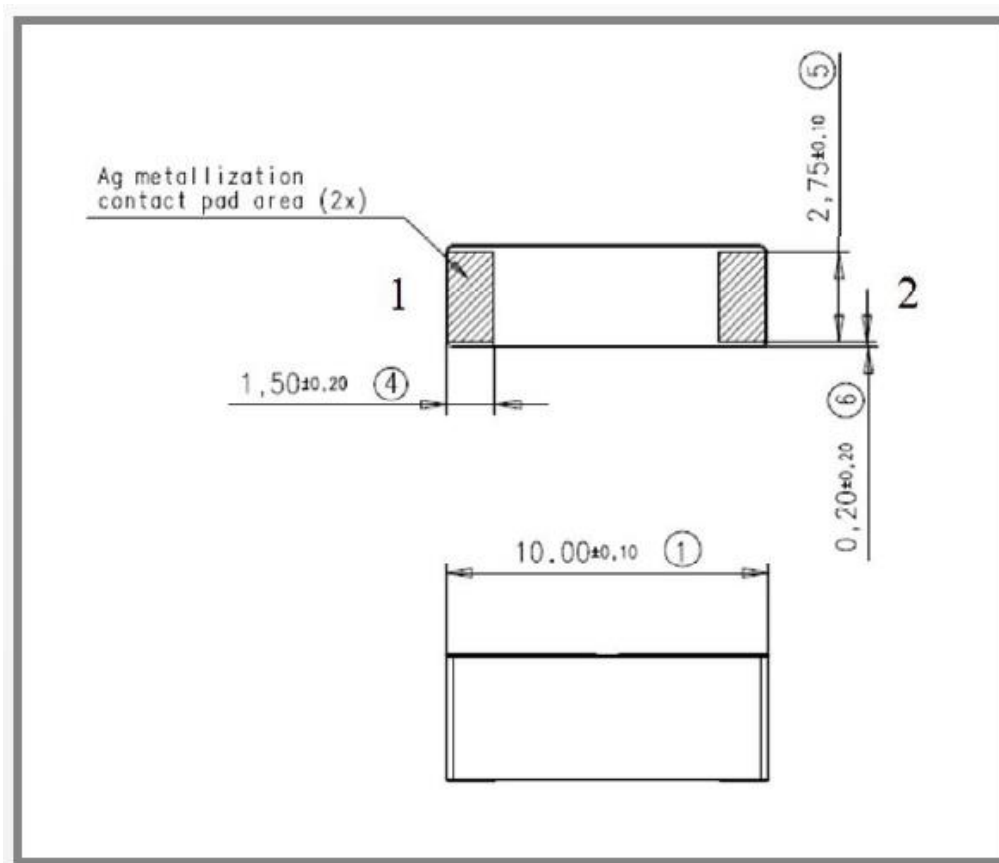
Typical performance (testboard size 80x37 mm, PWB ground clearance area 10.8 x 6.25 mm)

Frequency Range [MHz]	Linear Max Gain [dBi]	RHCP Gain [dBic]	Return loss min. [dB]	Efficiency [%]/[dB]	Impedance [Ω]	Operating Temperature [° C]
1575.42 +/- 10	3 (peak) 2.5 (band edges)	0.7 (peak) 0.3 (band edges)	-10	80 / -1(peak) 75 / -1.25(band edges)	50	-40 to +85

1.575GHz GPS Ceramic Chip Antenna

Pulse Part Number CW3009

Terminal Configuration and antenna dimensions



No.	Terminal Name	Terminal Dimensions
1	Feed / GND	1.5 x 2.75 mm
2	Feed / GND	1.5 x 2.75 mm

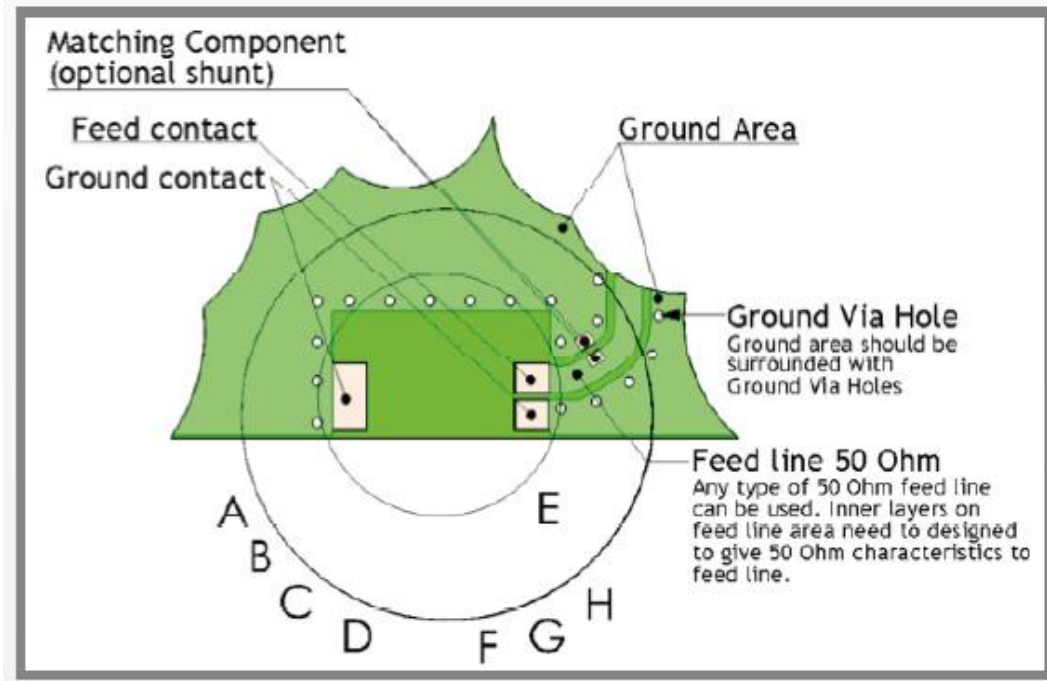
Antenna is symmetrical. Either of terminals 1 or 2 can be Feed / GND

Contact: mobiledeviceantenna.sales@pulseelectronics.com

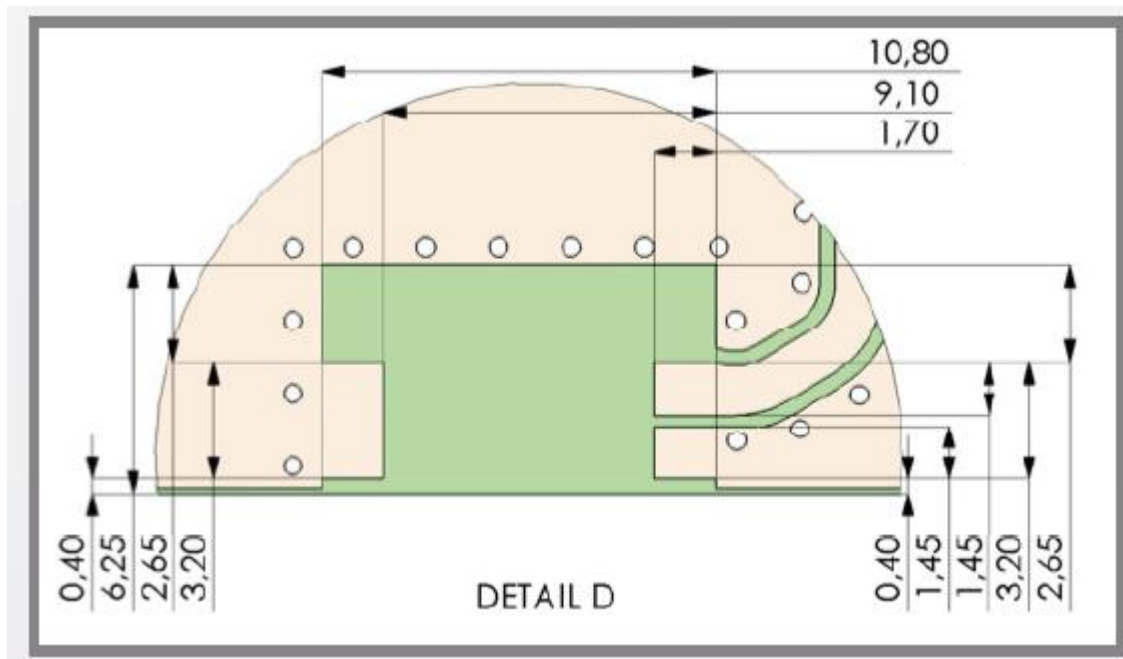
1.575GHz GPS Ceramic Chip Antenna

Pulse Part Number CW3009

Antenna PWB Layout



Pad dimensions in top copper



Contact: mobiledeviceantenna.sales@pulseelectronics.com

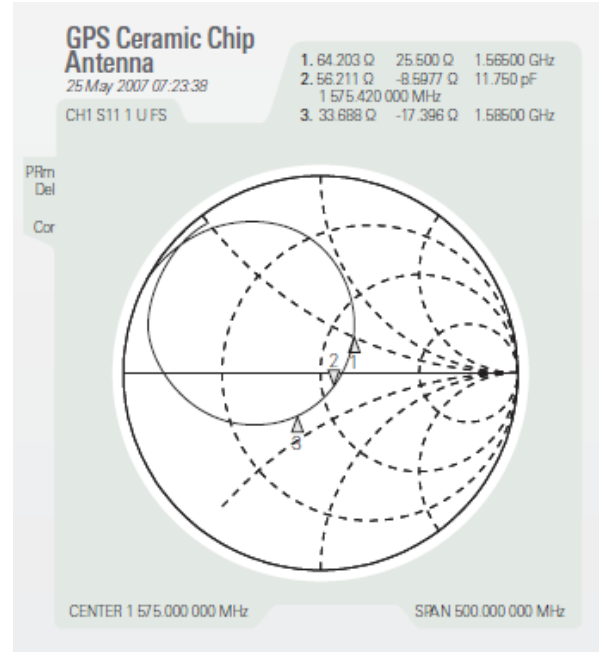
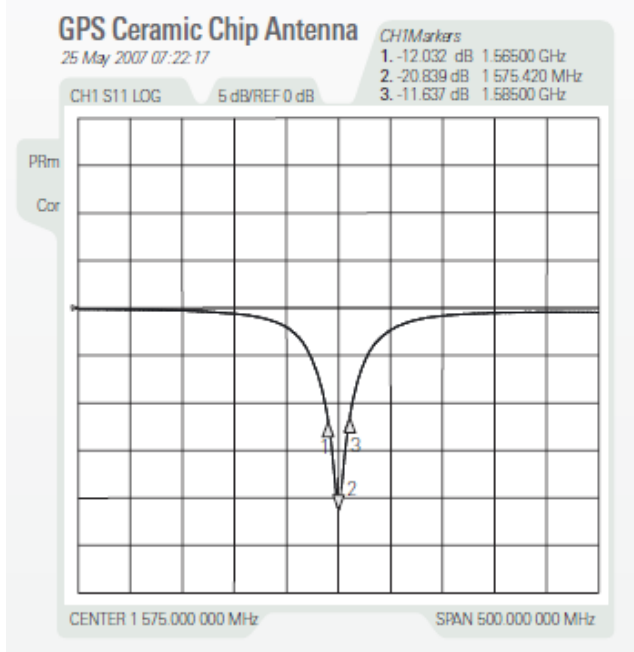
1.575GHz GPS Ceramic Chip Antenna

Pulse Part Number CW3009

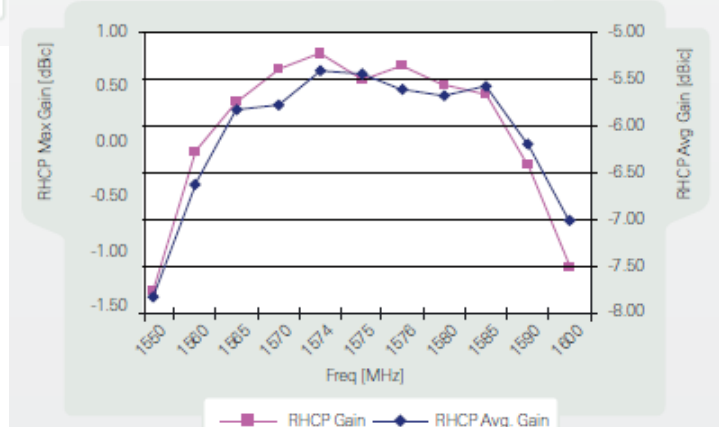
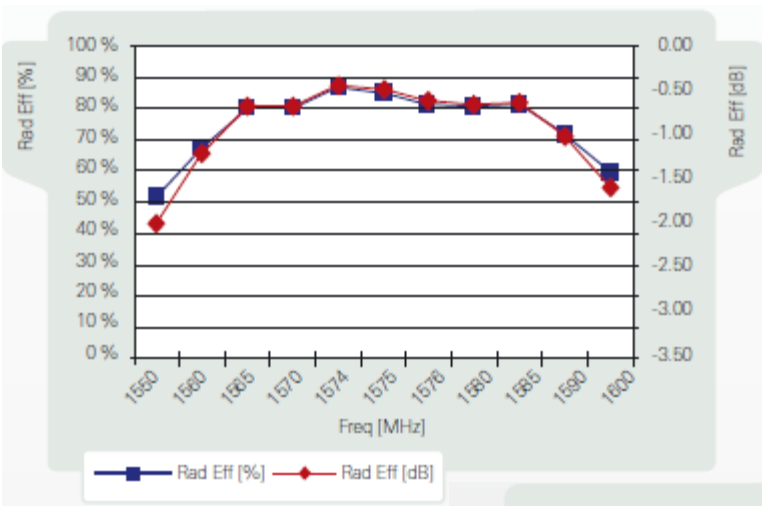
Typical Electrical Characteristics (T=25 °C)

Measured on the 80 x 37 mm test board with matching circuit (2.2 pF shunt matching capacitor on feed).

Typical Return Loss S11/ impedance



Free space efficiency and gain



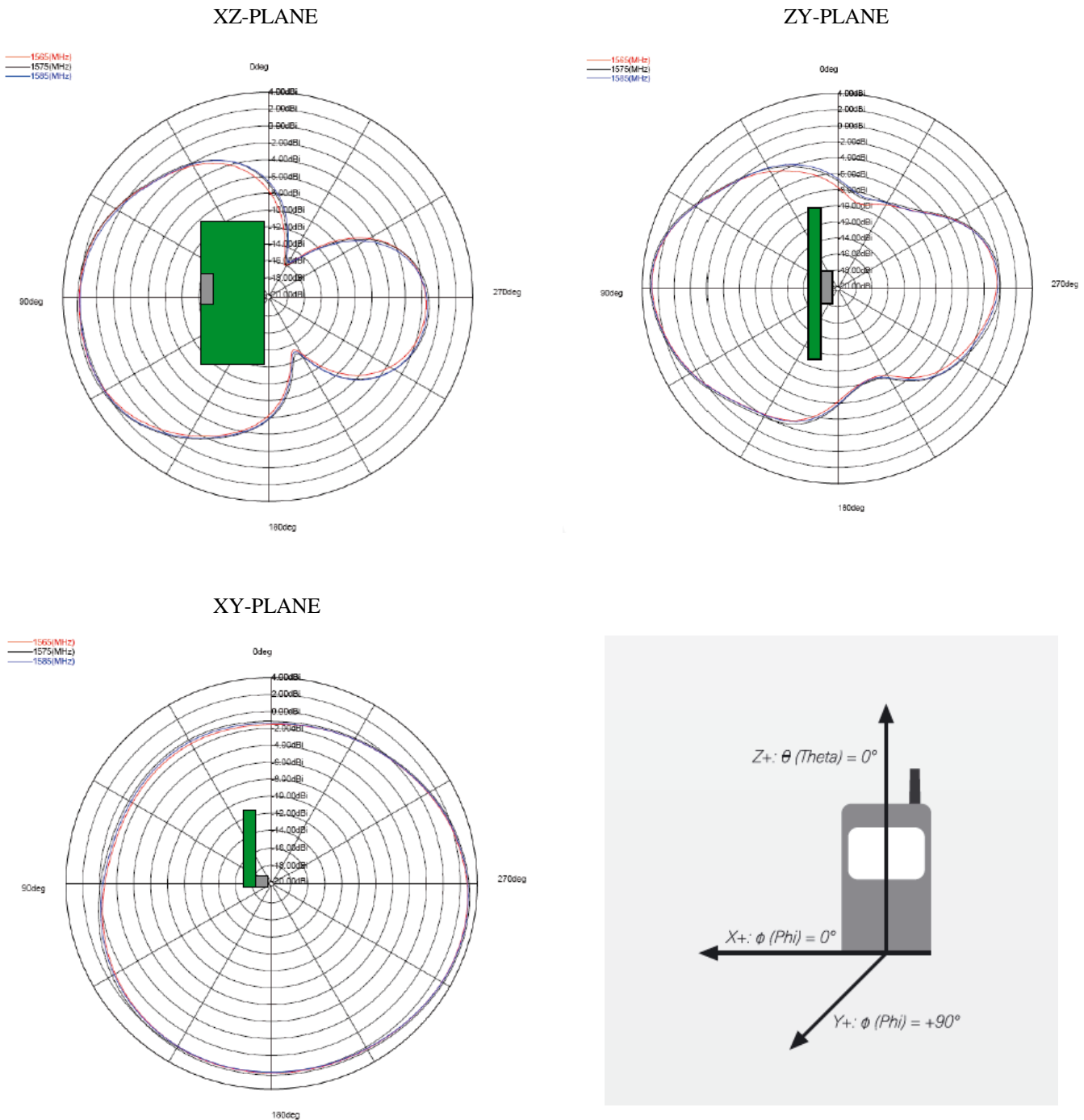
Contact: mobiledeviceantenna.sales@pulseelectronics.com



1.575GHz GPS Ceramic Chip Antenna

Pulse Part Number CW3009

Typical Free space Radiation Patterns



Contact: mobiledeviceantenna.sales@pulseelectronics.com