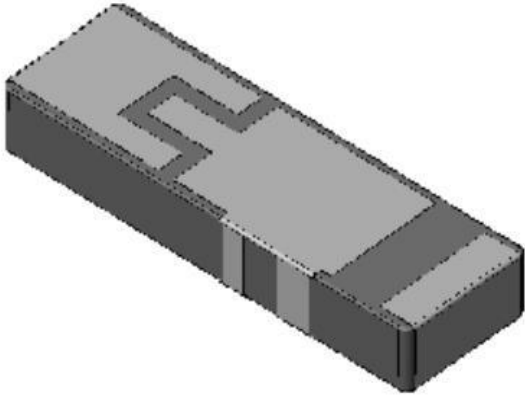


GPS/BT Single Feed Ceramic Chip Antenna

Pulse Part Number CW3056



Features

- Omni directional radiation
- Low profile
- Compact size W x L x H (10 x 3.2 x 1.5mm)
- Low weight (240 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)
- Bluetooth, WLAN, WiFi (2.4 – 2.5GHz)

Electrical specifications @ +25 ° C

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

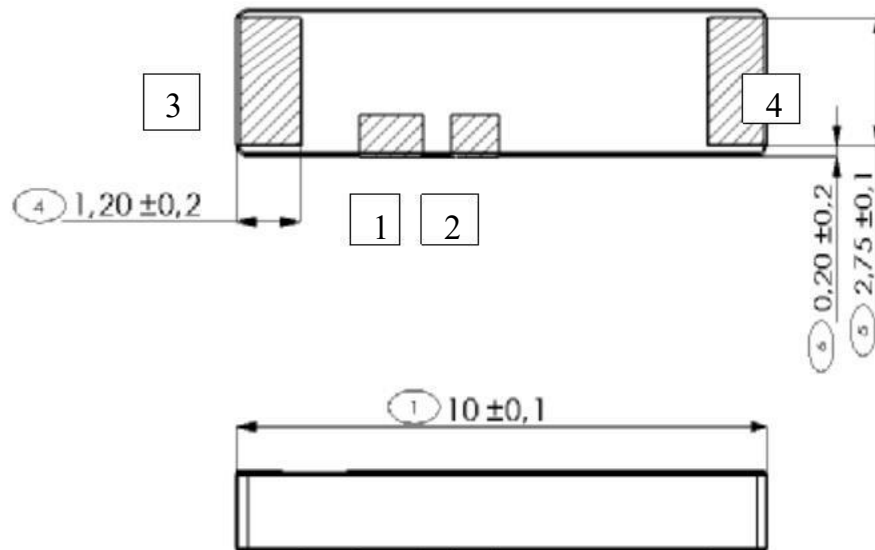
Typical performance (testboard size 100x40 mm, PWB ground clearance area 10.8 x 6.25/4.25 mm)

Frequency Range [MHz]	Efficiency [%]/[dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [$^{\circ}$ C]
1575.42+/-10	75 / -1.25(peak) 65/-1.9(+/-10MHz)	-20(peak) -10(+/-10MHz)	50	-40 to +85
2400-2480	80 / -1(peak) 70/-1.55(band edges)	-10(peak) -8(band edges)	50	-40 to +85

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Terminal Configuration and antenna dimensions

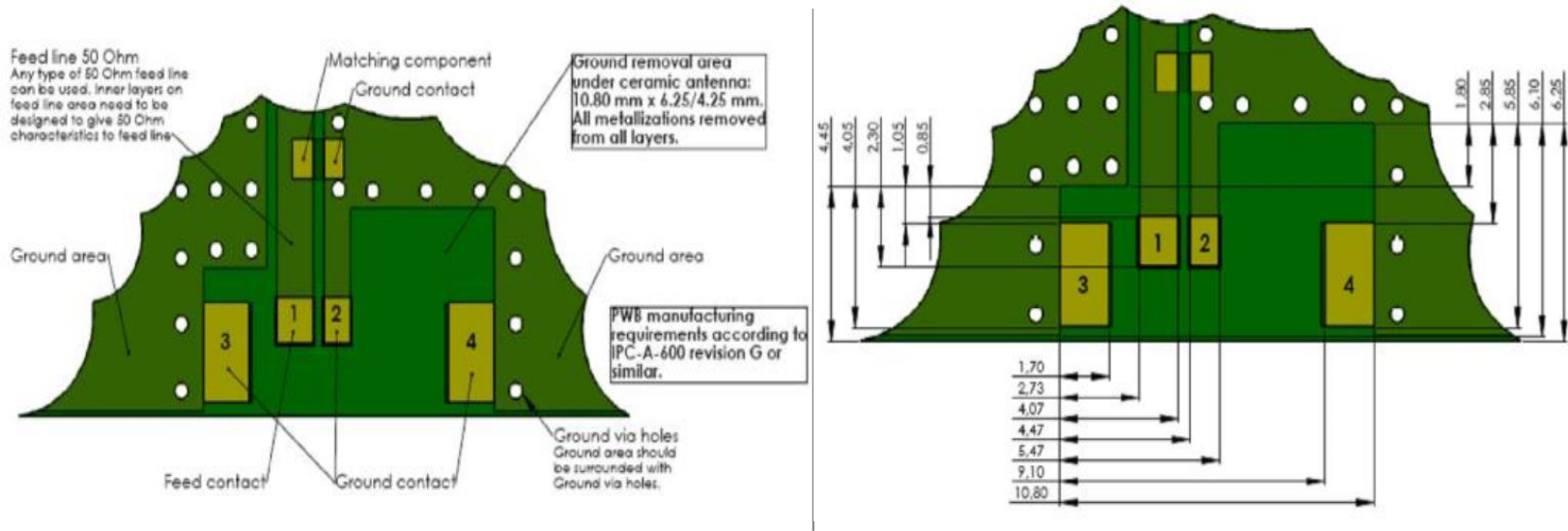


No.	Terminal Name	Terminal Dimensions
1	Feed	1.34 x 0.8 mm
2	GND	1.00 x 0.8 mm
3	GND	2.75 x 1.20 mm
4	GND	2.75 x 1.20 mm

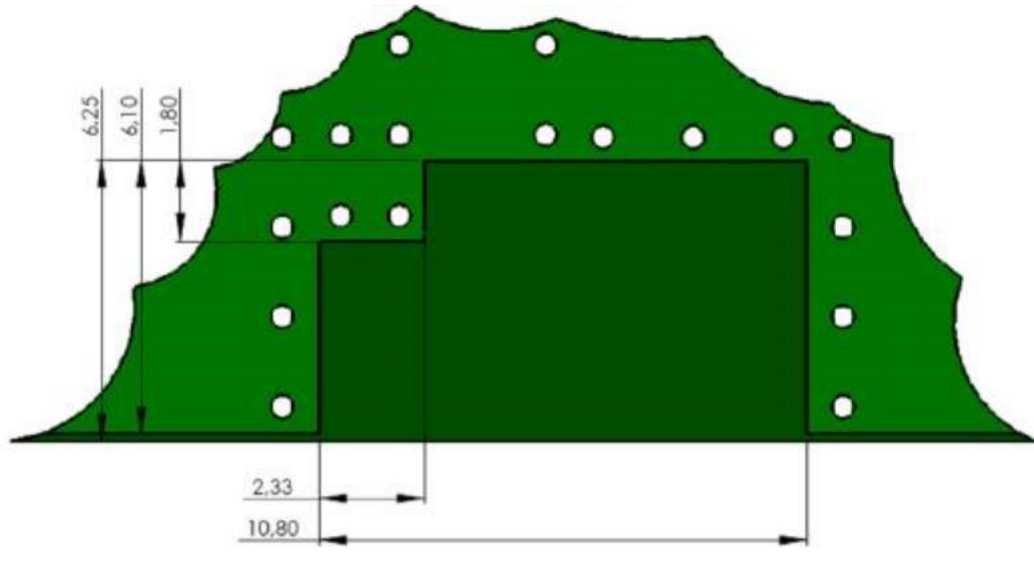
GPS/BT Single Feed Ceramic Chip Antenna

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Recommended Antenna Pad Dimensions on PWB Layout



Recommended ground clearance area under antenna on PWB



No.	Terminal Name	Terminal Dimensions
1	Feed	1.45 x 1.34 mm
2	GND	1.45 x 1.00 mm
3	GND	3.0 x 1.70 mm
4	GND	3.0 x 1.70 mm

Contact: mobiledeviceantenna.sales@pulseelectronics.com

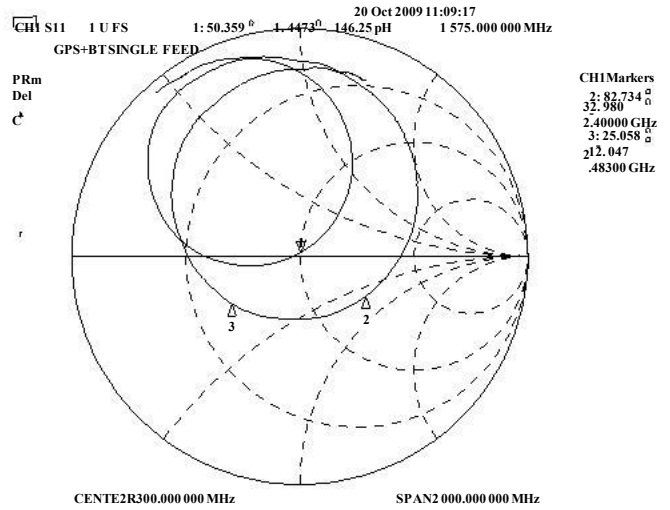
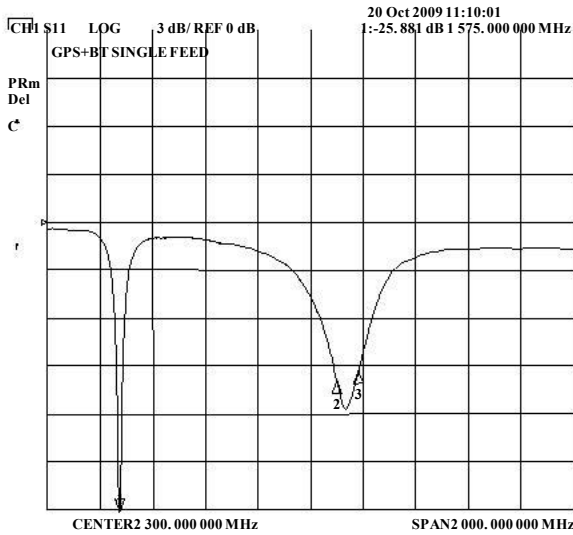
GPS/BT Single Feed Ceramic Chip Antenna

Pulse Part Number CW3056

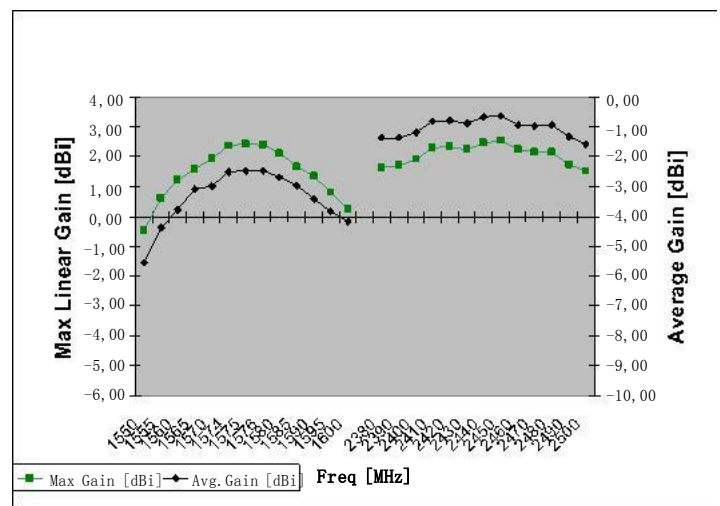
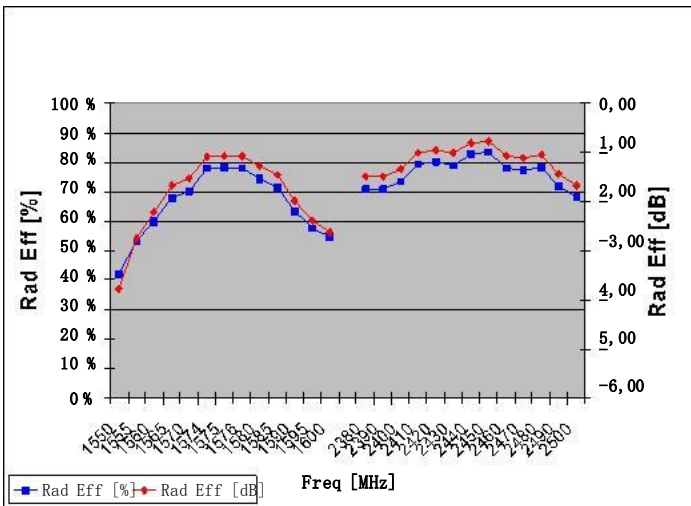
Typical Electrical Characteristics (T=25 ° C)

Measured on test pwb with matching circuit (2.2 nH shunt matching inductor on feed)

Typical Return Loss S11/ impedance



Typical free space efficiency and maximum gain



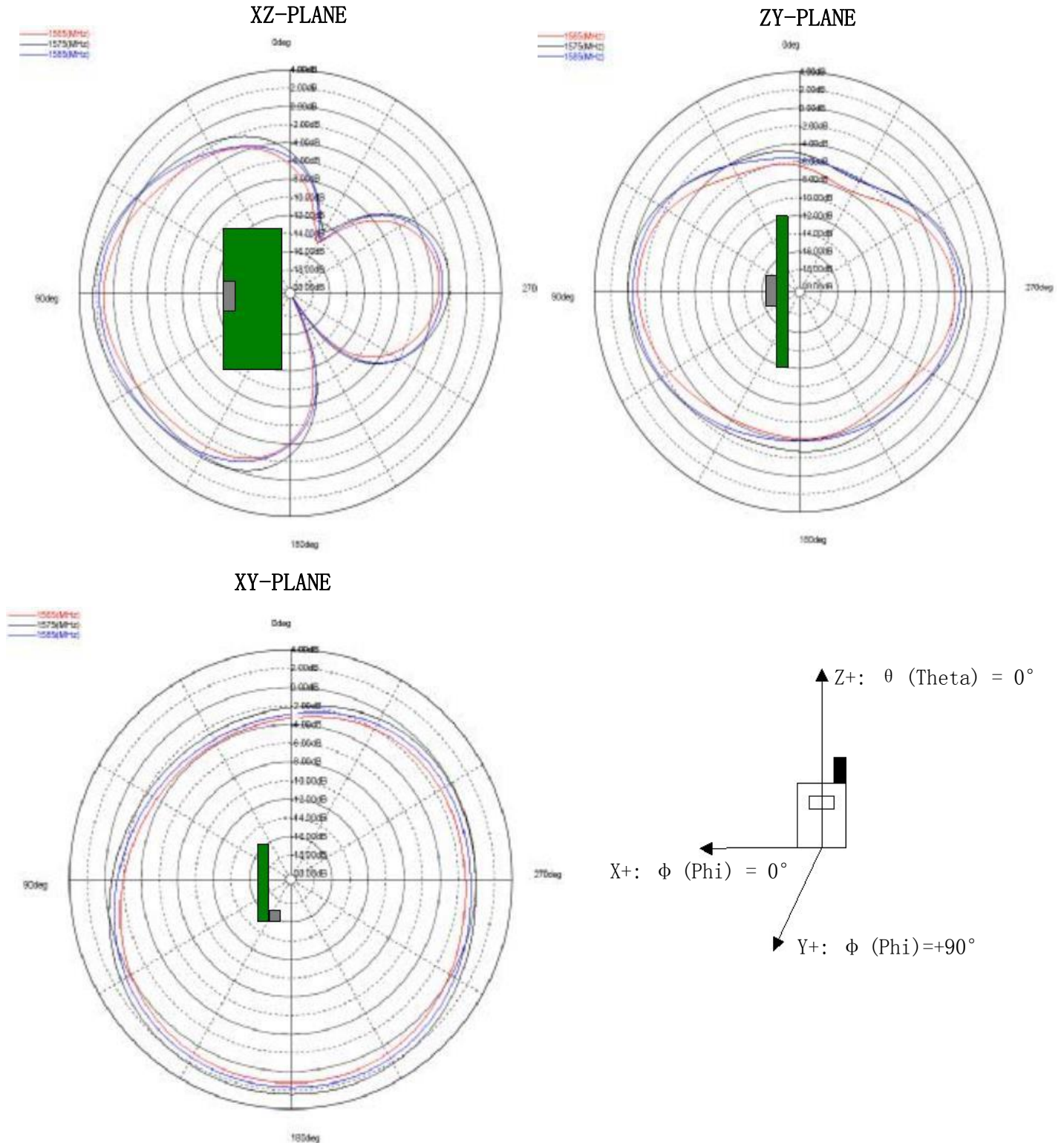
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GPS/BT Single Feed Ceramic Chip Antenna

Pulse Part Number CW3056

GPS Typical Free Space Radiation Patterns



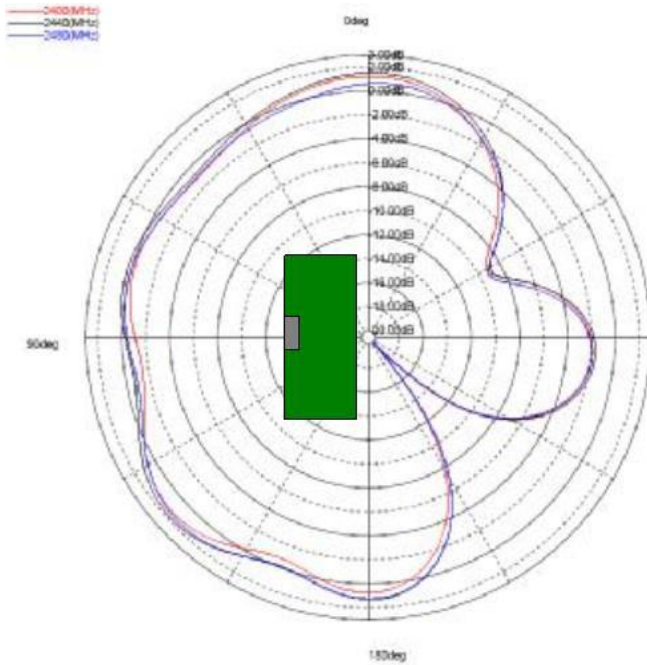
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GPS/BT Single Feed Ceramic Chip Antenna

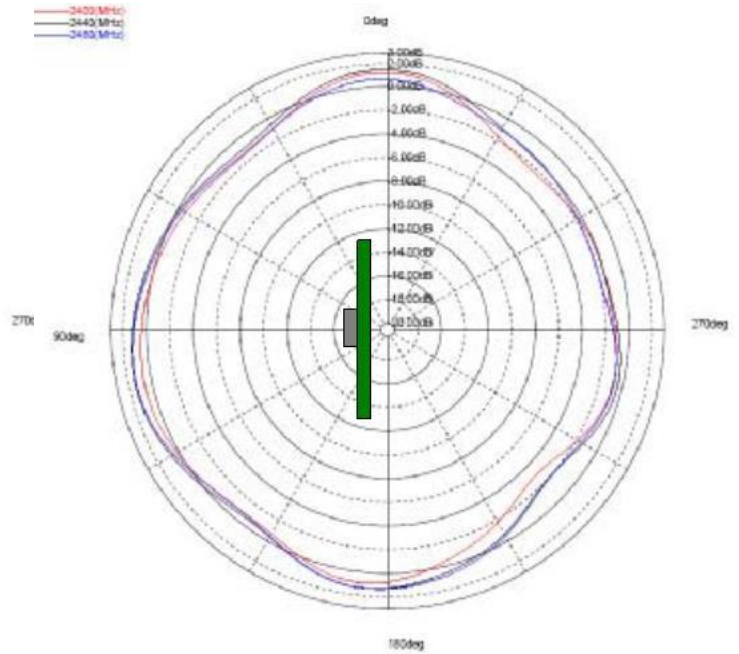
Pulse Part Number CW3056

BT Typical Free Space Radiation Patterns

XZ-PLANE



ZY-PLANE



XY-PLANE

