2.1GHz Rx Diversity Ceramic Antenna

Pulse Part Number CW3030

Features

-Omni directional radiation
-Low profile
-Compact size W x L x H (10 x 3.2 x 2 mm)
-Low weight (310 mg)
-Lead free materials
-Fully SMD compatible
-Lead free soldering compatible
-Tape and reel packing
-RoHS Compliant Product

Applications

-WCDMA
-2.11 – 2.17GHz

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 10.60 x 6.25 mm)

Frequency Range [MHz]	Linear Max Gain [dBi]	Return loss min. [dB]	Efficiency [%]/[dB]	Impedance [Ω]	Operating Temperature [° C]
2110 – 2170	2 (peak) 1.5 (band edges)	-10	80 / -1(peak) 70 / -1.55(band edges)	50	-40 to +85

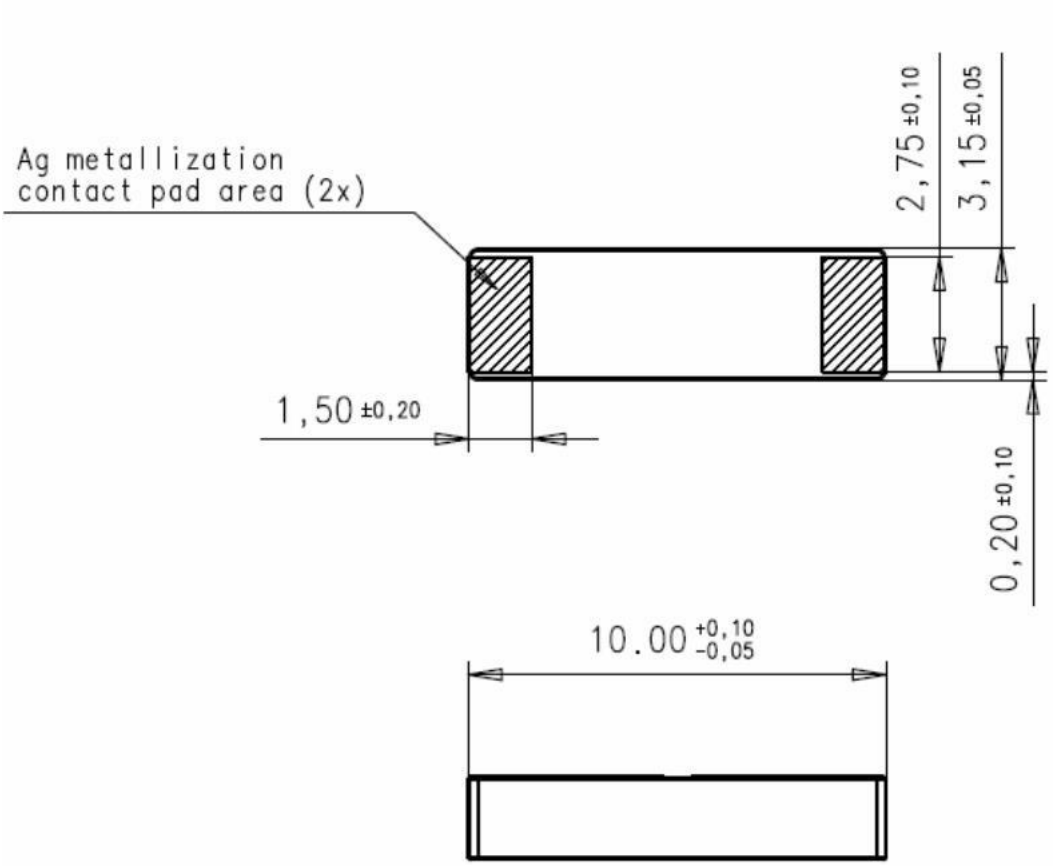
Contact: mobiledeviceantenna.sales@pulseelectronics.com

Pulse Electronics

2.1GHz Rx Diversity Ceramic Antenna

Pulse Part Number CW3030

Terminal Configuration and antenna dimensions



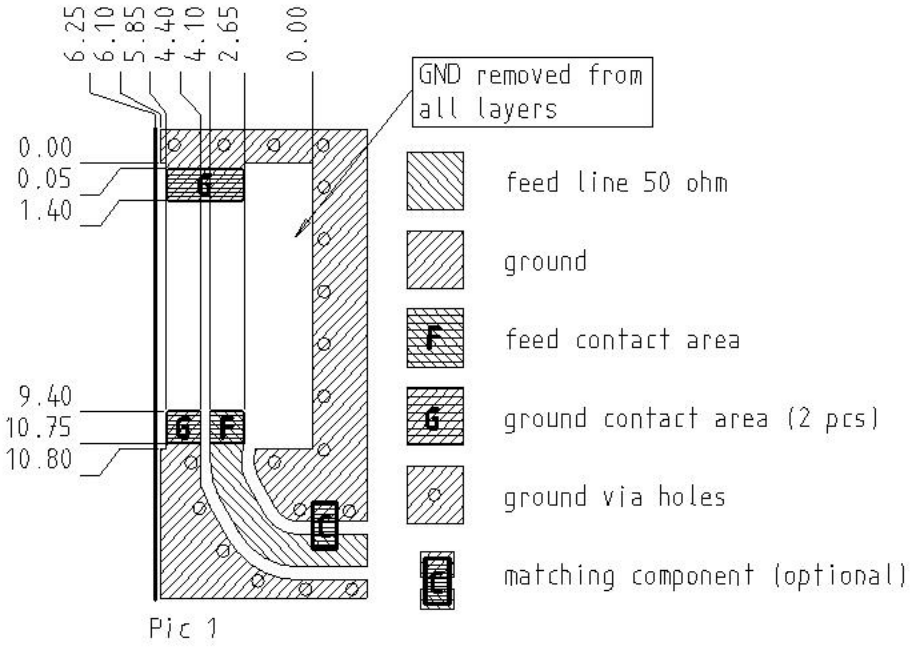
No.	Terminal Name	Terminal Dimensions
1	Feed / GND	1.5 x 2.75 mm
2	Feed / GND	1.5 x 2.75 mm
Antenna is symmetrical. Either of terminals 1 or 2 can be Feed / GND		

Contact: mobiledeviceantenna.sales@pulseelectronics.com

2.1GHz Rx Diversity Ceramic Antenna

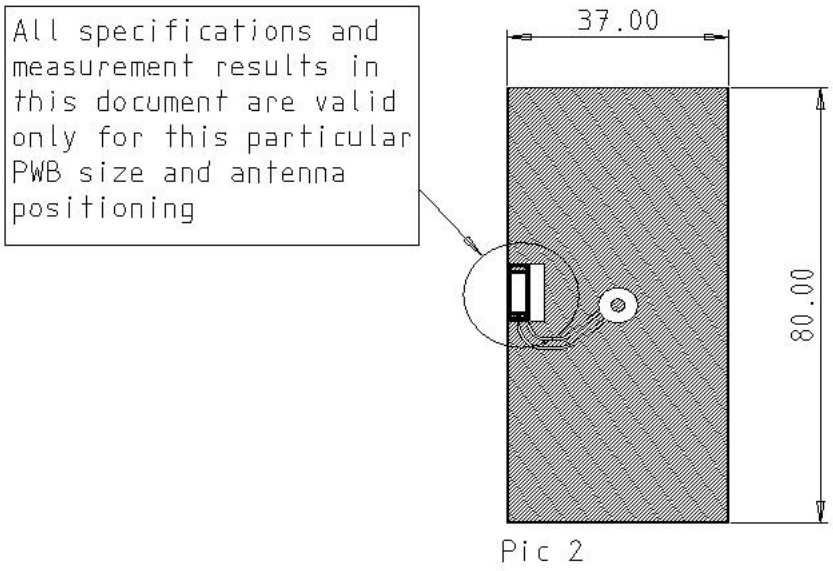
Pulse Part Number CW3030

Recommended test board layout



Pic 1

Feed line should be designed to mach 50 Ω characteristic impedance, depending on PWB material and thickness.



Pic 2

Matching and tuning component values depend on application and surrounding mechanics /materials

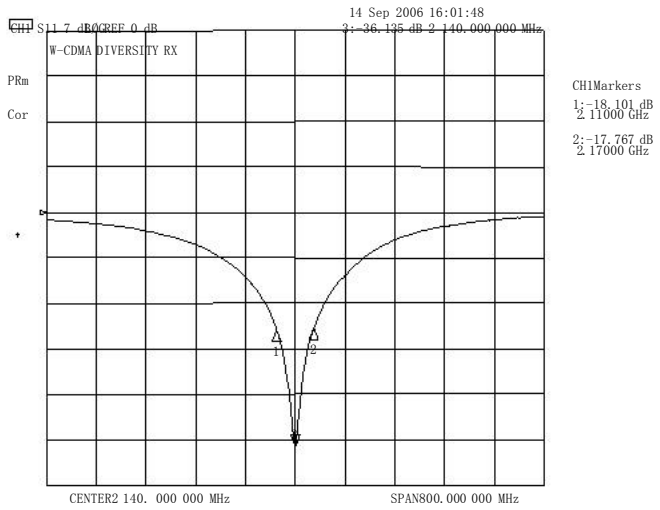
2.1GHz Rx Diversity Ceramic Antenna

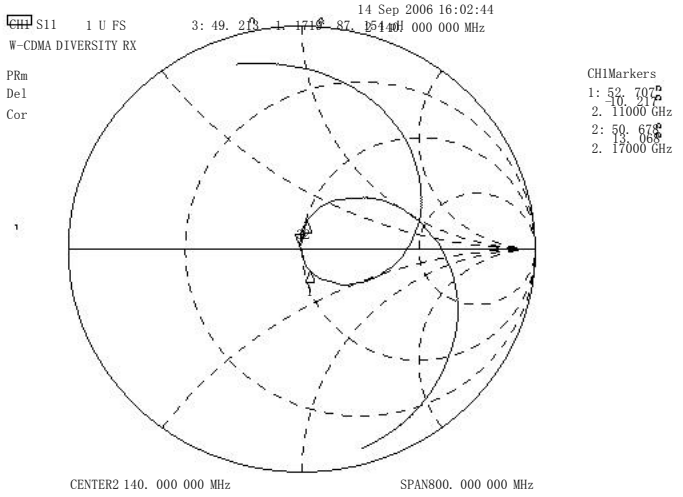
Pulse Part Number CW3030

Typical Electrical Characteristics (T=25 °C)

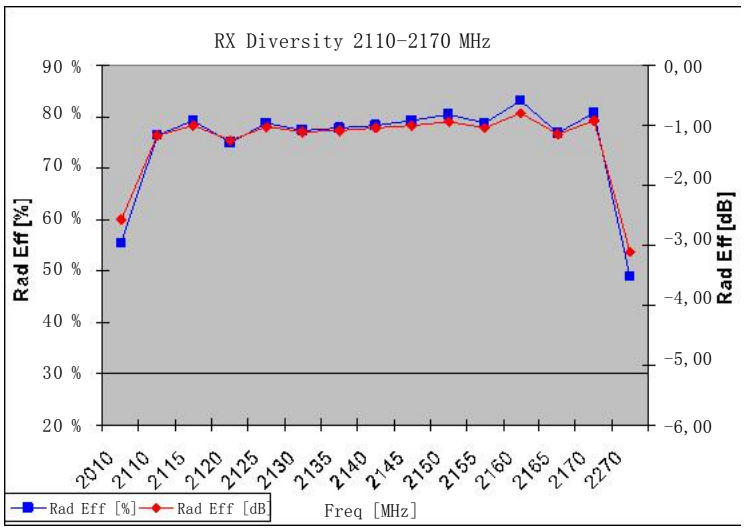
Measured on the 80 x 37mm test board without matching circuit

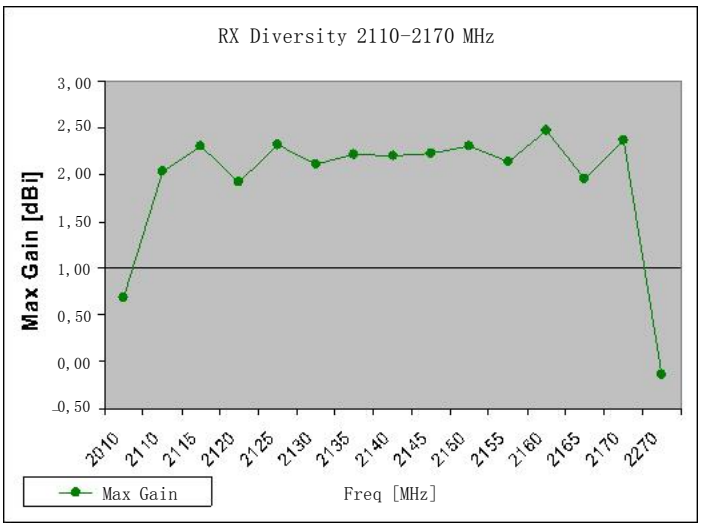
Typical Return Loss S11/ impedance





Free space efficiency and maximum gain





Contact: mobiledeviceantenna.sales@pulseelectronics.com

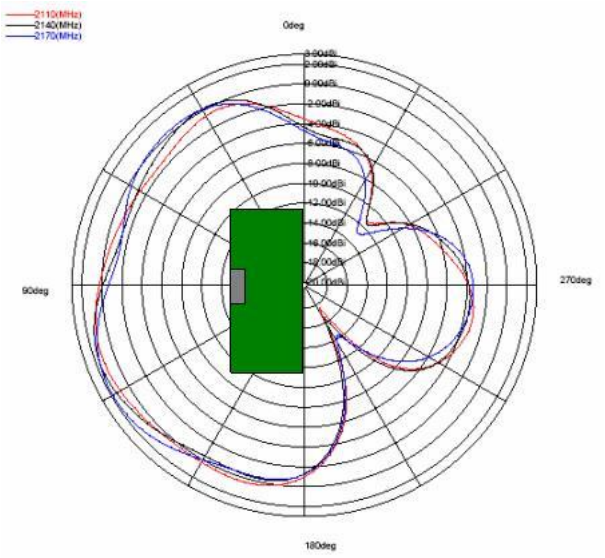
Pulse Electronics

2.1GHz Rx Diversity Ceramic Antenna

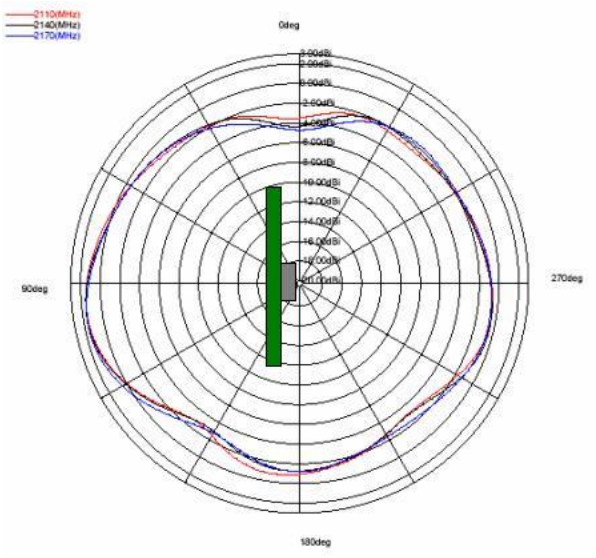
Pulse Part Number CW3030

Typical Free Space Radiation Patterns

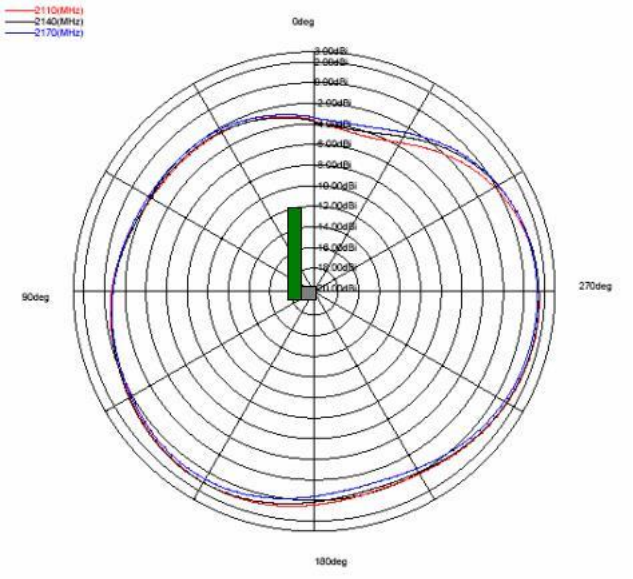
XZ-PLANE

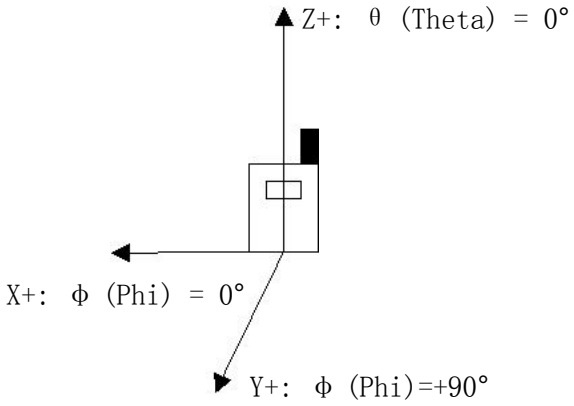


ZY-PLANE



XY-PLANE





Contact: mobiledeviceantenna.sales@pulseelectronics.com