

920MHz Ceramic Chip Antenna

Pulse Part Number CW3014



Features

- Low profile
- Compact size W x L x H (10 x 3.2 x 1.5 mm)
- Low weight (240 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

- 920MHz radios

Electrical specifications @ +25 ° C

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

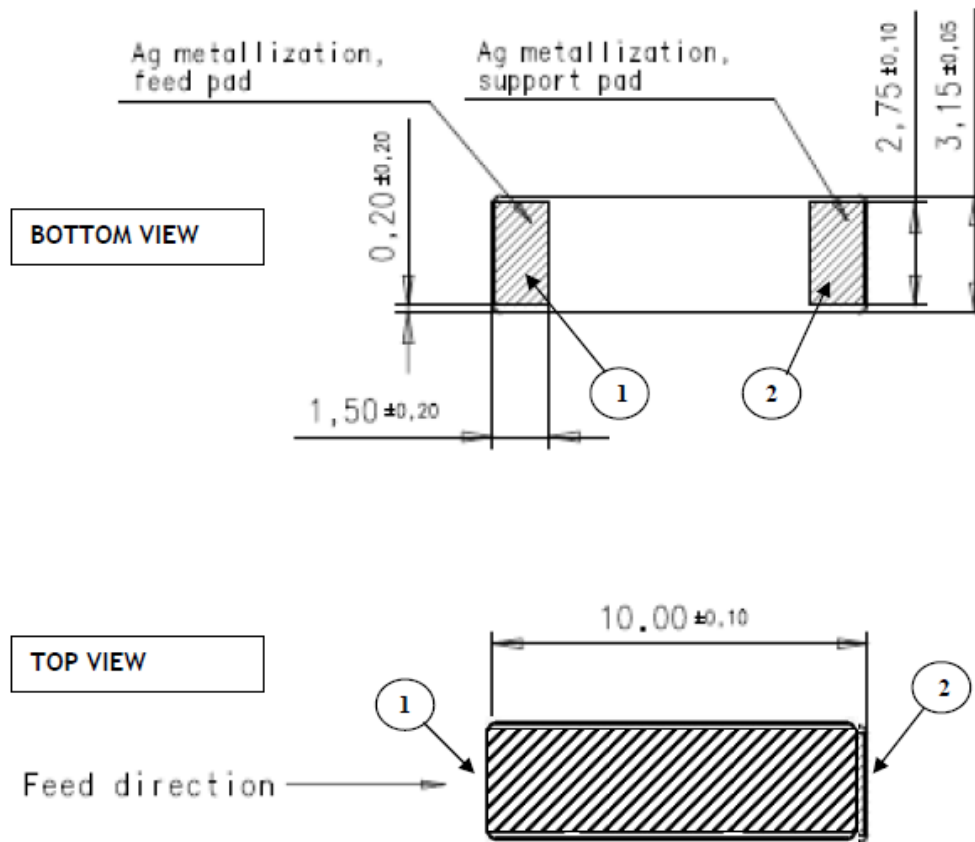
Typical performance (testboard size 96x40 mm, PWB ground clearance area 40 x 16 mm), 27nH series inductor used for frequency tuning and 10nH shunt inductor used for impedance matching.

Frequency Range [MHz]	3D Max Gain [dBi]	Return loss min. [dB]	Efficiency [%]/[dB]	Impedance [Ω]	Operating Temperature [$^{\circ}$ C]
880 – 960	-0.5 (peak) -1 (band edges)	-7	45 / -4.5(peak) 40 / -4(band edges)	50	-40 to +85

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Terminal Configuration and antenna dimensions



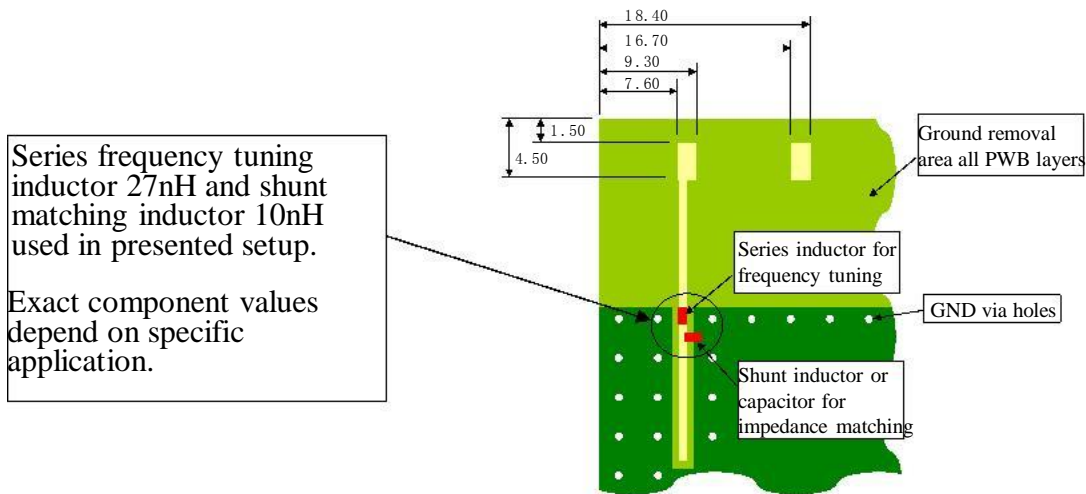
No.	Terminal Name	Terminal Dimensions
1	Feed	1.5 x 2.75 mm
2	Support pad	1.5 x 2.75 mm

Antenna is symmetrical and orientation on footprint can be rotated 180 degrees without change in performance

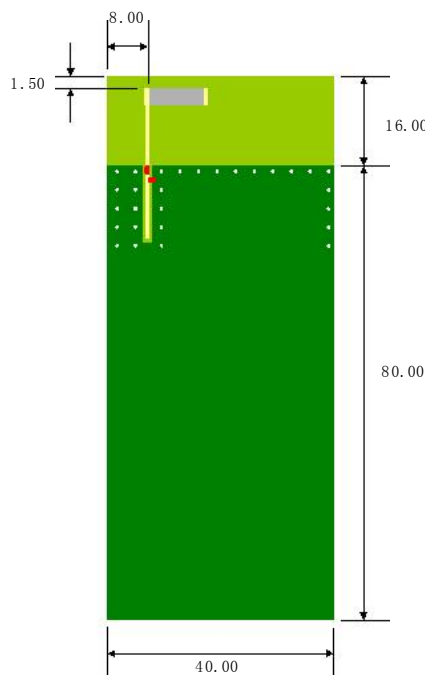
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Recommended test board layout



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



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

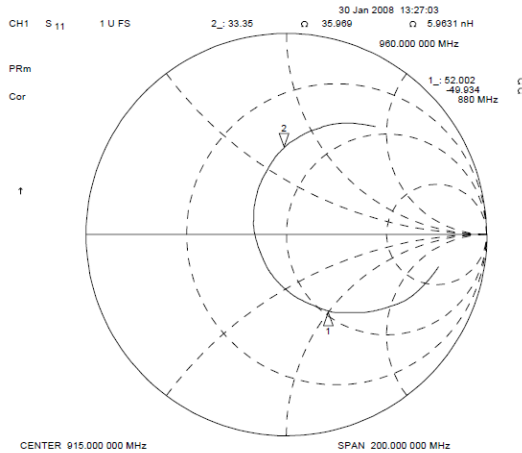
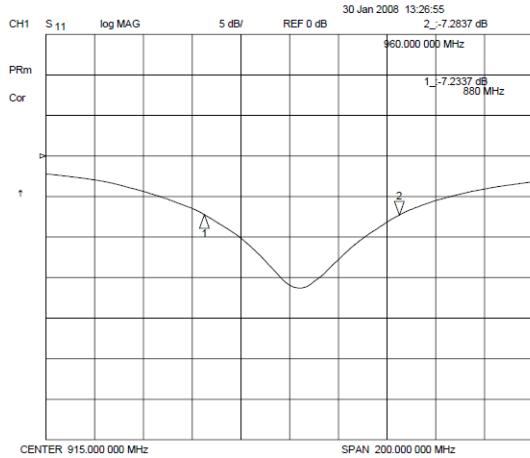
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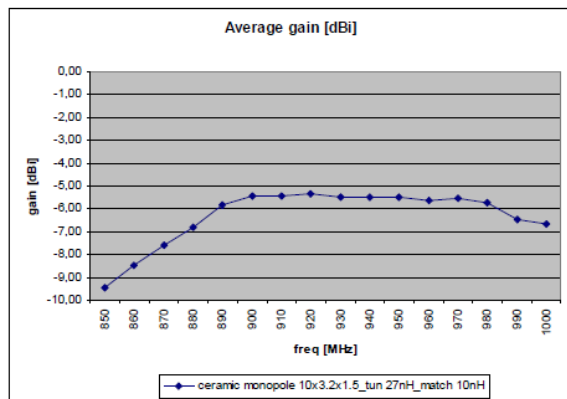
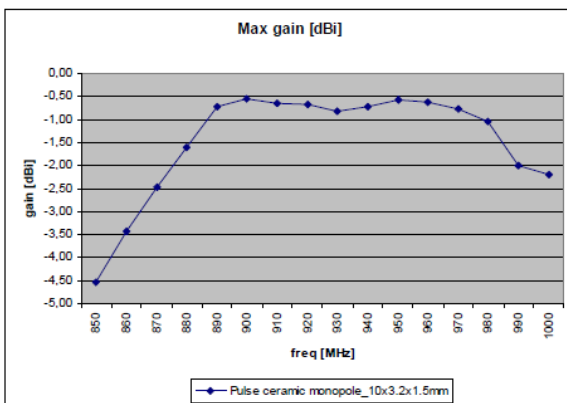
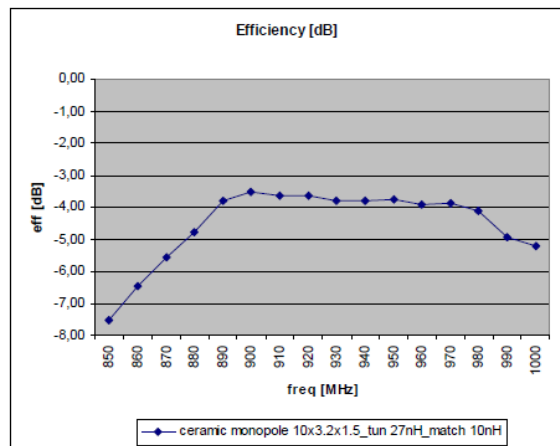
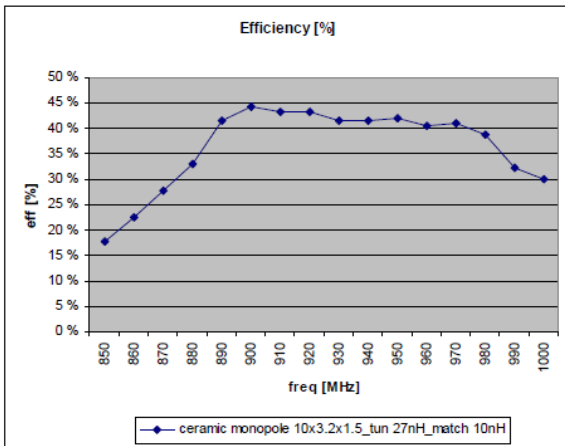
Typical Electrical Characteristics (T=25 °C)

Measured on the 80x37mm test board with matching circuit, 27nH series inductor used for frequency tuning and 10nH shunt inductor used for impedance matching

Typical Return Loss S11/ impedance



Free space 3D efficiency and gain



Contact: mobiledeviceantenna.sales@pulseelectronics.com

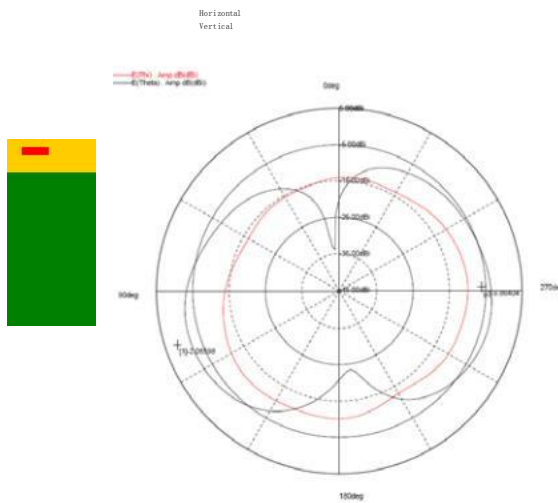


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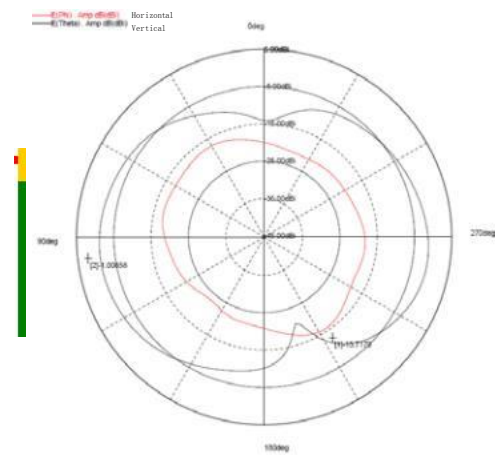
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Typical Free Space Radiation Patterns

XZ-PLAN



ZY-PLANE



XY-PLANE

