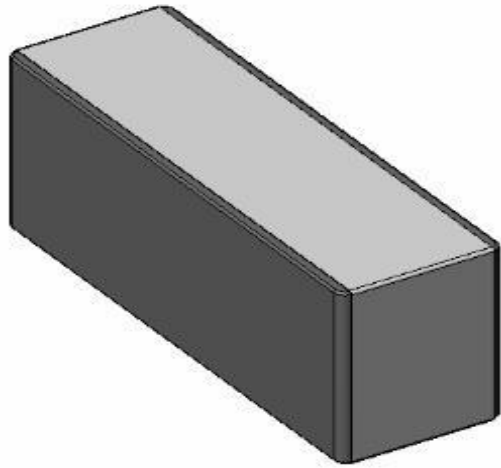


868 MHz Ceramic Chip Antenna

Pulse Part Number CW3016



Features

- Low profile
- Compact size W x L x H (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

- 868MHz radios

Electrical specifications @ +25 ° C

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

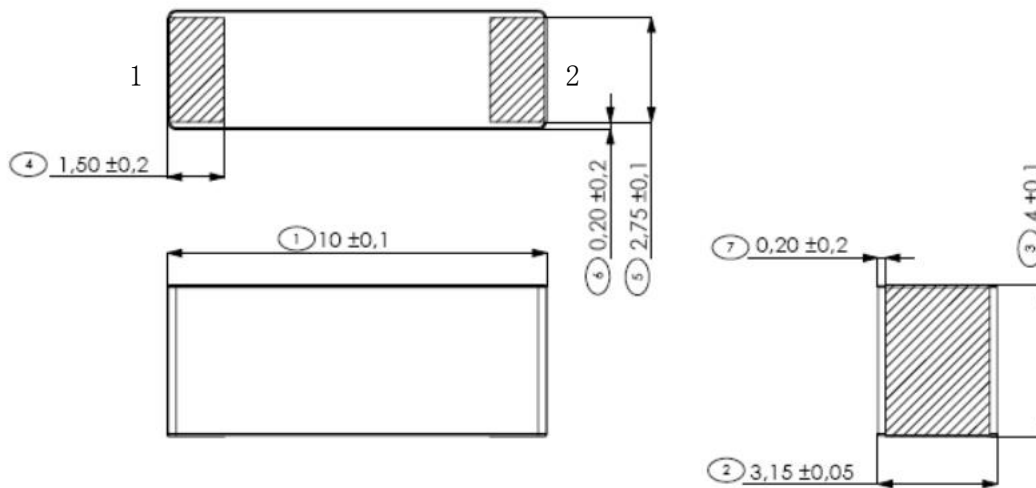
Typical performance (test board size 25 x 25 mm, PWB ground clearance area 11.50 x 7 mm) 6.8nH and 22nH series inductors used for frequency tuning and 6.8nH shunt inductor used for impedance matching.

Frequency Range [MHz]	3D Max Gain [dBi]	Return loss min. [dB]	3D Efficiency [%]/[dB]	Impedance [Ω]	Operating Temperature [$^{\circ}$ C]
844 – 904	-2.2 (peak) -4.2 (band edges)	-15	24 / -6.1(peak) 17 / -7.7(band edges)	50	-40 to +85

868 MHz Ceramic Chip Antenna

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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

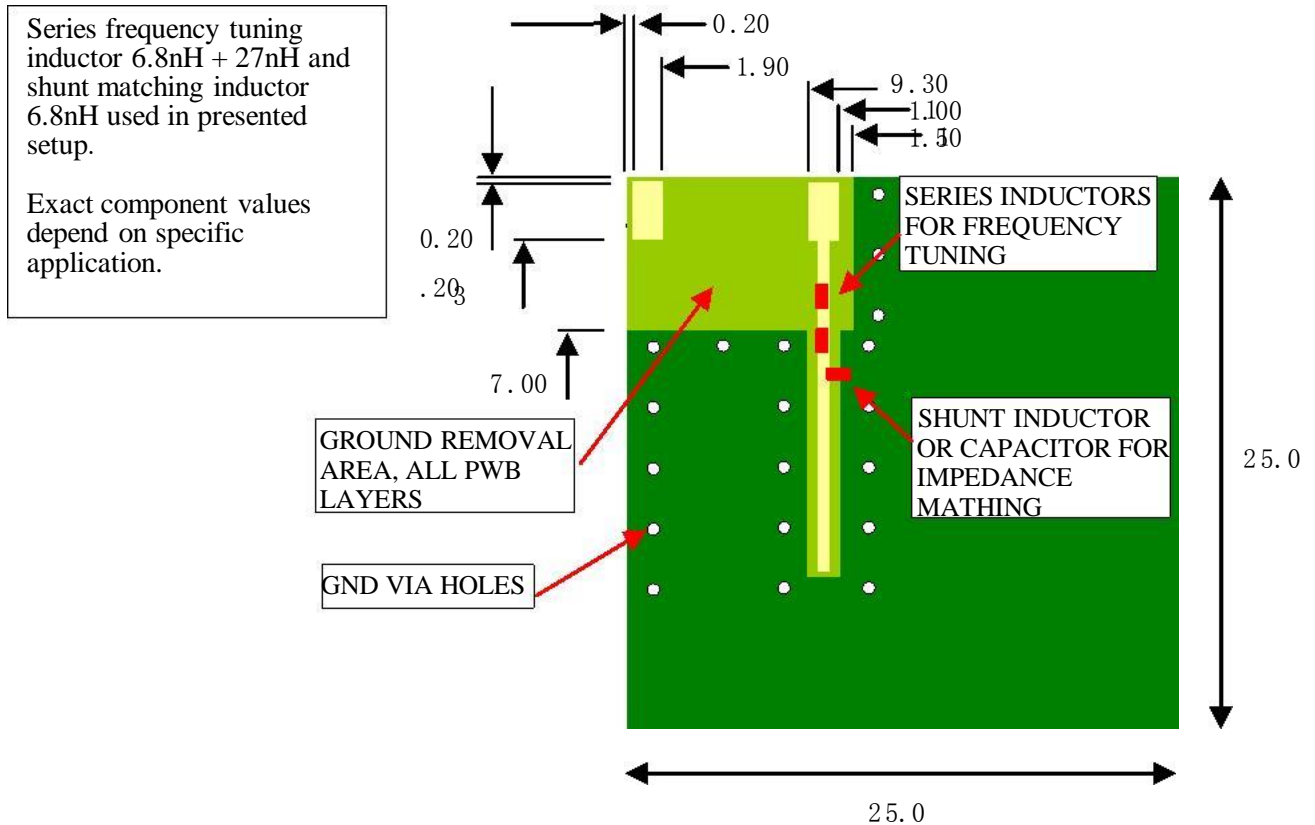
Antenna is symmetrical and orientation on footprint can be rotated 180 degrees without change in performance

868 MHz Ceramic Chip Antenna

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PWB Layout

Recommended test board layout for electrical characteristic measurement, test board outline size 25 x 25mm.



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

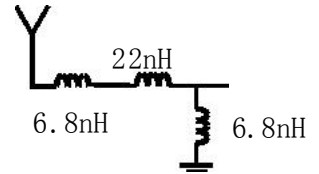
Matching and tuning component values depend on application and surrounding mechanics / Materials.

868 MHz Ceramic Chip Antenna

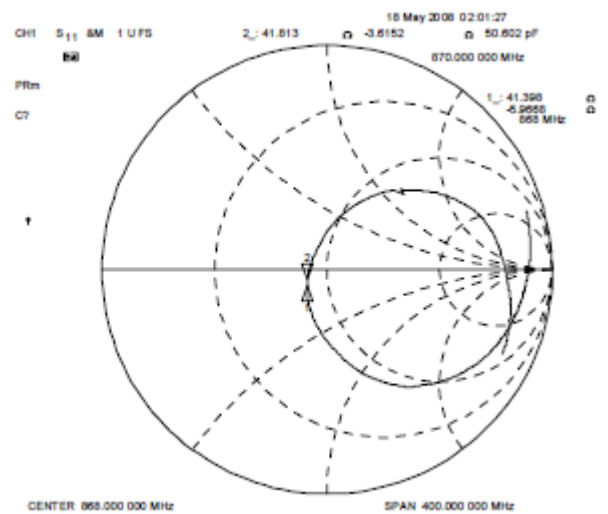
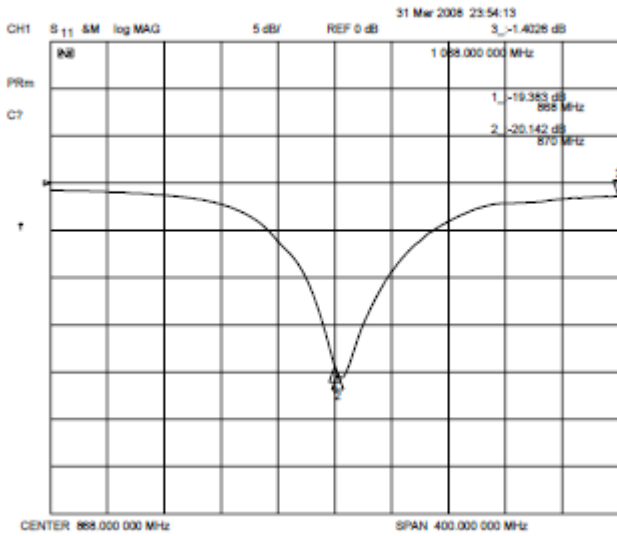
Pulse Part Number CW3016

Typical Electrical Characteristics (T=25 ° C)

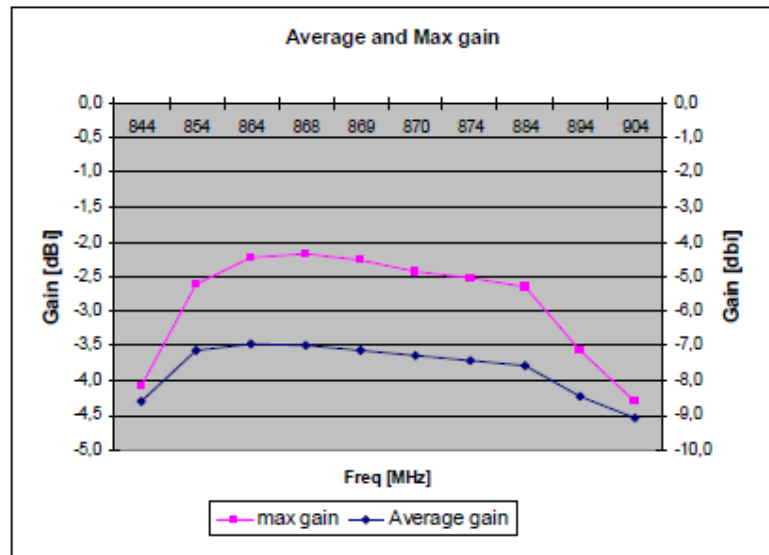
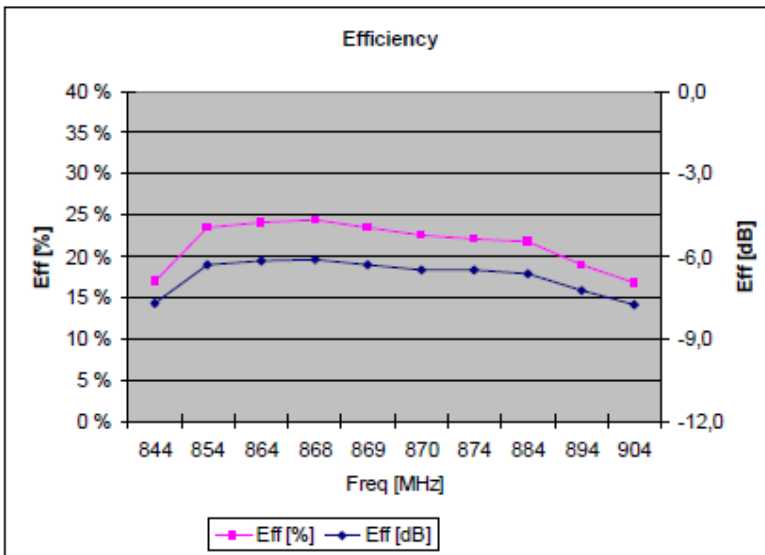
Measured on the 25x25mm test board with matching circuit, 6.8nH, 22nH series and 6.8nH shunt inductor



Typical Return Loss S11/ impedance



Free space 3D efficiency and gain



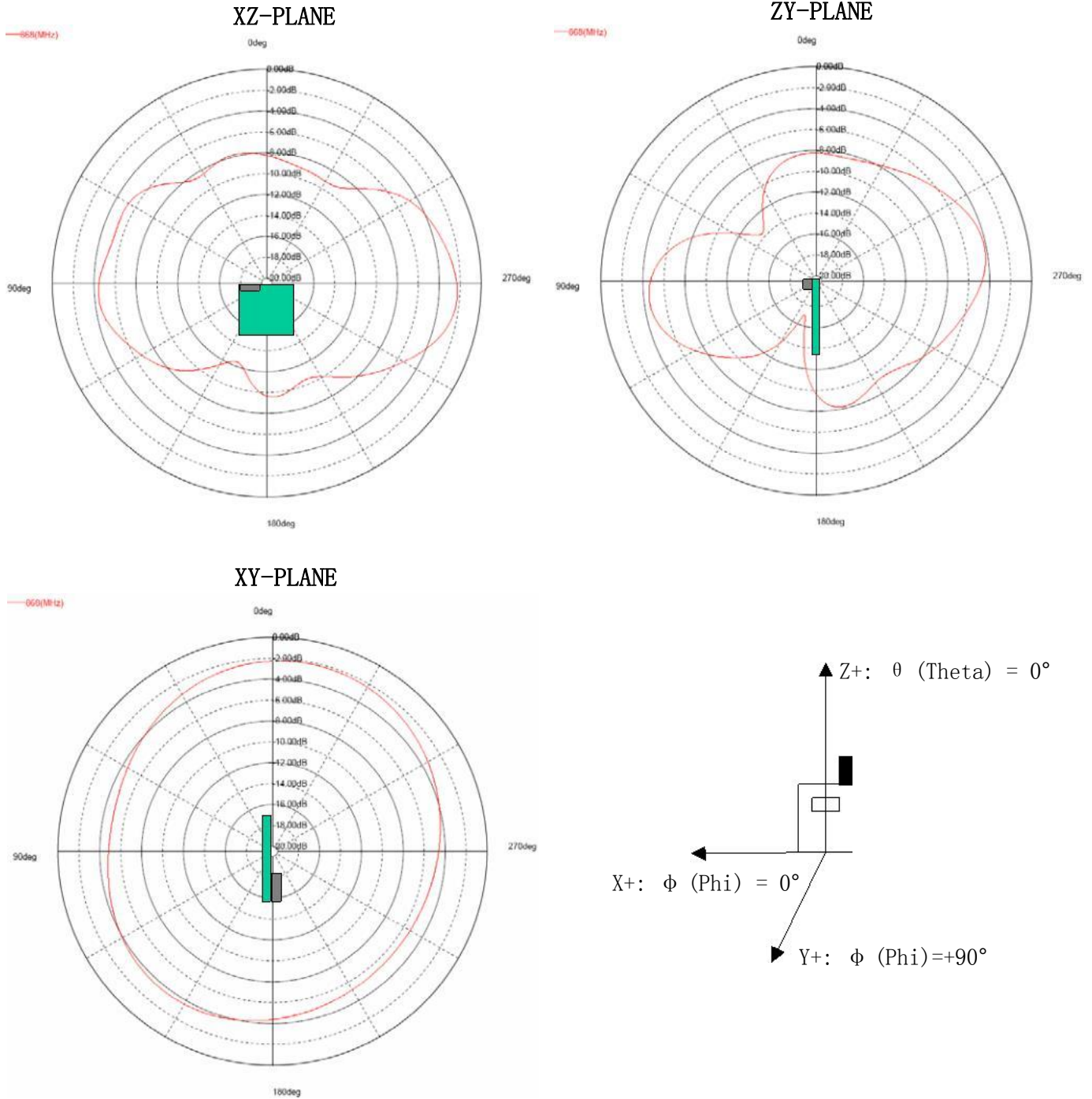
Contact: mobiledeviceantenna.sales@pulseelectronics.com



868 MHz Ceramic Chip Antenna

Pulse Part Number CW3016

Typical Free Space Radiation Patterns



Contact: mobiledeviceantenna.sales@pulseelectronics.com