

**Series:** Ceramic Chip Antenna

#### **TECHNICAL DATA SHEET**

**Description**: 868MHz Monopole SMD

Antenna

PART NUMBER: W3016

#### **Features:**

- 863-870MHz
- Monopole radiator
- · Gain -3dBi
- Size 10 x 3.2 x 4 mm
- Optimized for small PCB
- Easy tuning with matching circuit

# **Applications:**

- ISM 868MHz radios
- Sigfox
- LoRa
- IoT, M2M
- · Sensors, monitors

#### All dimensions are in mm

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden. For more information:

Pulse Worldwide Headquarters 15255 Innovation Drive #100 San Diego, CA 92128 USA Tel:1-858-674-8100 Pulse/Larsen Antennas 18110 SE 34<sup>th</sup> St Bldg 2 Suite 250 Vancouver, WA 98683 USA Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany

Pulse (Suzhou) Wireless Products Co, Inc. 99 Huo Ju Road(#29 Bldg,4<sup>th</sup> Phase Suzhou New District Jiangsu Province, Suzhou 215009 PR China Tel: 86 512 6807 9998







**Description**: 868MHz Monopole SMD

Antenna

**PART NUMBER: W3016** 

**Series:** Ceramic Chip Antenna

### **ELECTRICAL SPECIFICATIONS**

Antenna Type	Ceramic HTC
Frequency	863-870 MHz
Nominal Impedance	$50 \Omega$
Return Loss	<-15 dB
Radiation Pattern	Omni
Gain	>-3 dBi
Efficiency	>20%
Polarization	Vertical
Power Withstanding	2 W

#### **MECHANICAL SPECIFICATIONS**

Overall Length 10x3.2x4mm

Weight 0.6g

Antenna Color / Material Ceramic Grey / Silver

Moisture Sensitivity Level MSL1

### **ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature -40 to +85 ° C
Storage Temperature -40 to +85 ° C
RoHS Compliant Yes

Above electrical specification tested on 25x25mm sized PCB





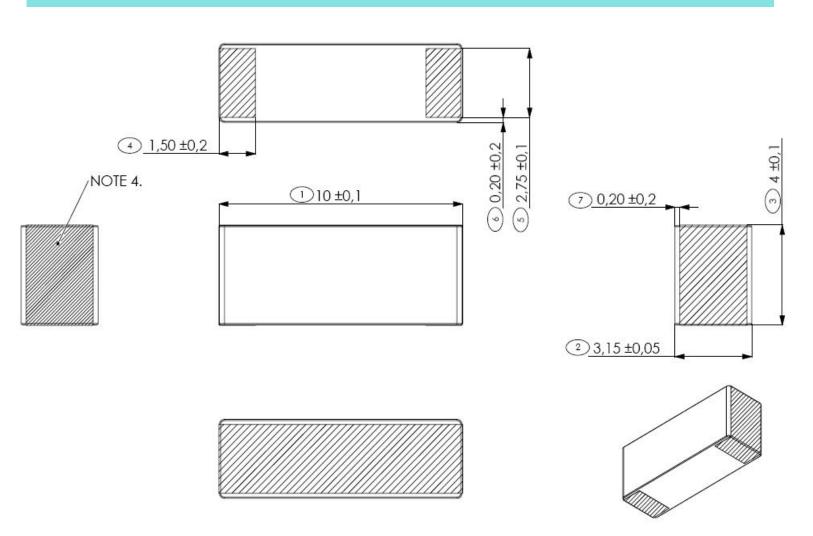
**Description**: 868MHz Monopole SMD

**Antenna** 

**PART NUMBER: W3016** 

# **Series:** Ceramic Chip Antenna

### **MECHANICAL DRAWING**



С	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





**Description**: 868MHz Monopole SMD

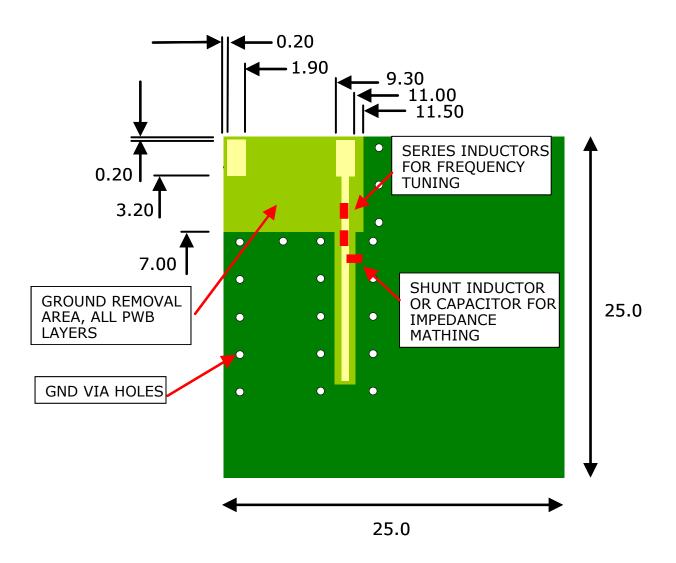
**Antenna** 

**PART NUMBER: W3016** 

**Series:** Ceramic Chip Antenna

### **MECHANICAL DRAWING**

#### **Test Board Layout**







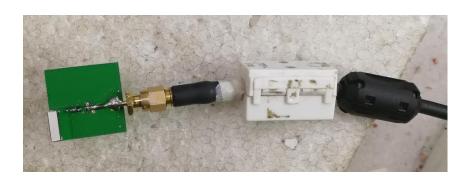
**Description**: 868MHz Monopole SMD

Antenna

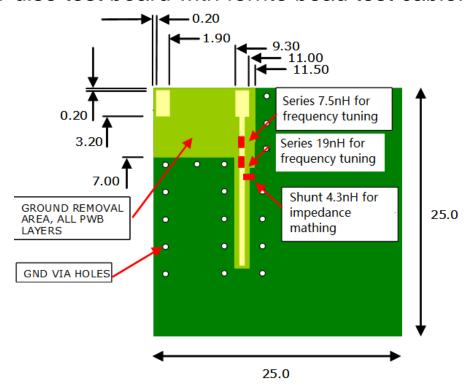
PART NUMBER: W3016

# **Series:** Ceramic Chip Antenna

### **TEST SETUP**



Test on Pulse test board with ferrite bead test cable.



Matching circuit for reference





**Description**: 868MHz Monopole SMD

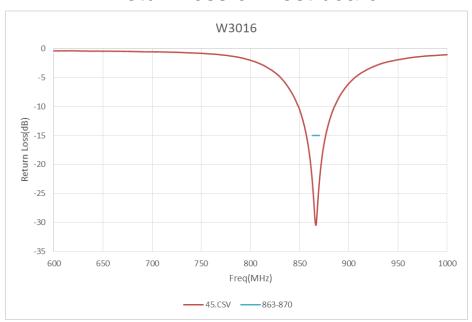
Antenna

**PART NUMBER: W3016** 

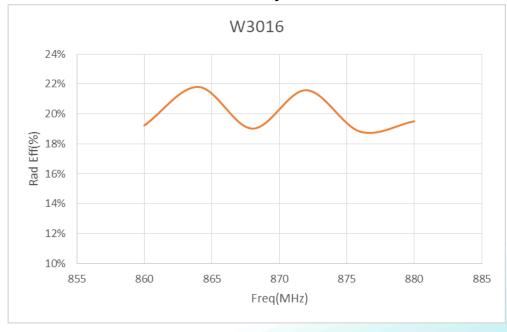
**Series:** Ceramic Chip Antenna

#### **CHARTS**

### Return loss on Test board



# Radiation Efficiency on Test board



Issue: 1918



**Description**: 868MHz Monopole SMD

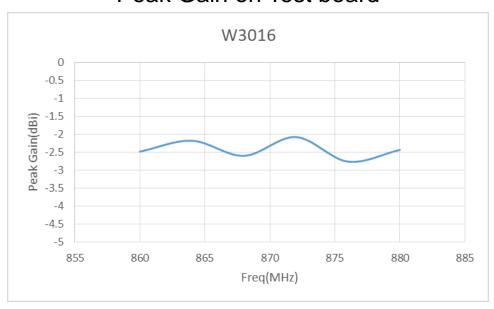
Antenna

**PART NUMBER: W3016** 

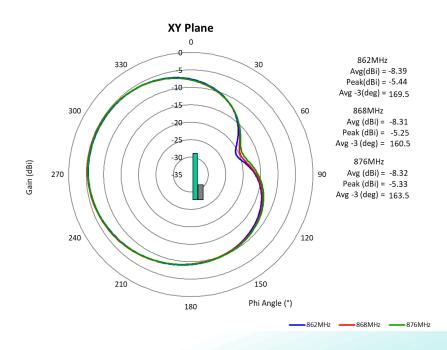
**Series:** Ceramic Chip Antenna

#### **CHARTS**

### Peak Gain on Test board



# Radiation pattern at XY plane



Issue: 1918





**Description**: 868MHz Monopole SMD

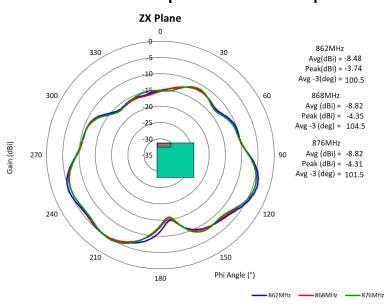
**Antenna** 

PART NUMBER: W3016

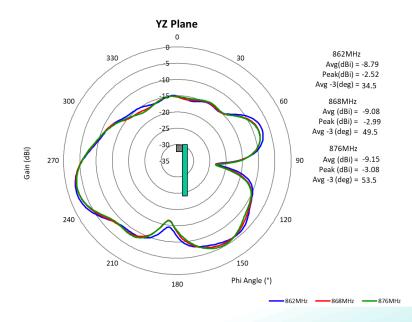
**Series:** Ceramic Chip Antenna

#### **CHARTS**

# Radiation pattern at ZX plane



# Radiation pattern at YZ plane





**Description**: 868MHz Monopole SMD

**Antenna** 

**PART NUMBER: W3016** 

# **Series:** Ceramic Chip Antenna

### **PACKAGING**

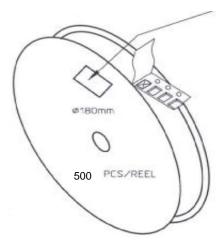
500pcs antennas per 7" reel

3pcs reel per inner box

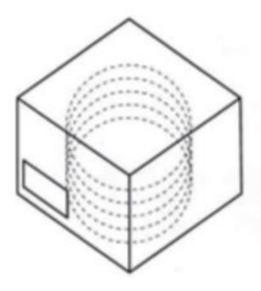
2pcs inner box per outer box

Total 3000pcs antenna per package box

Package box: 390mm\*215mm\*165mm



Label area



According to MSL1 packing requirement, MBB-Moisture Barrel Bag, Desiccant, HIC-Humidity Indicator Card, MSID Label, Caution Label are required.

# 单击下面可查看定价,库存,交付和生命周期等信息

# >>Pulse(普思)