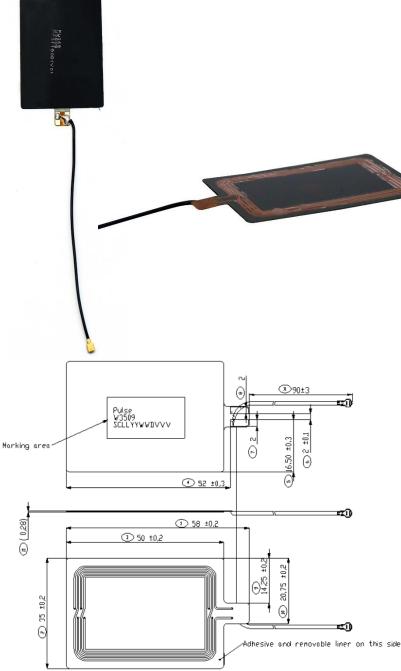


# **Description: 13.56MHz NFC Ferrite Antenna** with coax feed and U.FL connector

## Series: NFC Antenna

PART NUMBER: W3509



## **Features:**

- Flex PCB antenna
- Coax cable feed with U.FL connector
- Ferrite sheet to enable operation on top of metallic surface
- Mounting with adhesive tape (included)

# **Applications:**

- Near Field Communication
- Pairing, Sharing
- Connection to RFID tags
- Payment, EMVCo
- Phones, Infotainment, PoS terminals, Toys, Asset Tracking



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Pulse/Larsen Antennas 3611 NE 112th Ave Vancouver, WA 98682 USA

Europe Headquarters Pulse GmbH & Do, KG Zeppelinstrasse 15 Herrenberg, Germany Tel: 1-360-944-7551 Downloaded From Oneyac.com

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



## Series: NFC Antenna

Description: 13.56MHz NFC Ferrite Antenna with coax feed and U.FL connector

PART NUMBER: W3509

### ELECTRICAL SPECIFICATIONS

Frequency *	13.56 MHz
Reading Distance (EMVCo) *	40 mm
Reading Distance (Grid Scan avg) *	29 mm
Impedance *	50 Ohm
Self Resonance Frequency **	32 MHz
Inductance @ 1MHz **	1.8 uH
Resistance @ 1MHz **	0.9 Ohm
Q-Factor **	35.9
Matched Q-Value ***	5-30

### Note:

- Electrical characteristics depend from distance of metal objects and the location of the antenna on the device

- Data shown in above table is measured in free space
- \* With matching network
- \*\* Bare coil without any matching network

\*\*\* With matching network adjustable. Typical network picture refer to page 3

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### Series: NFC Antenna

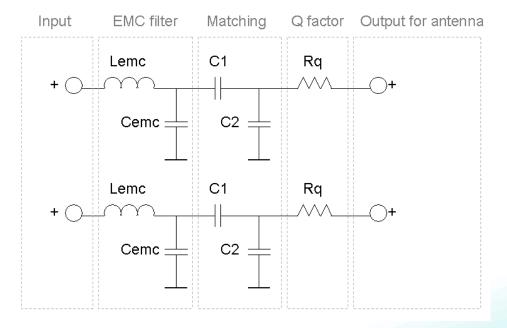
Description: 13.56MHz NFC Ferrite Antenna with coax feed and U.FL connector

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### **ELECTRICAL SPECIFICATIONS**

# **Recommended matching network**

Component	Value	Note
Lemc	560 nH	Filter resonance at 15.4 MHz
Cemc	180 pF	Filter resonance at 15.4 MHz
C1	22 pF	Antenna matching component, value depends on the antenna environment Antenna matching
C2 Includes C2a and C2b values)	132 pF	Antenna matching component, value depends on the antenna environment Antenna matching
Rq	0Ohm	Rq resistors used to lower Q-value



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# Description: 13.56MHz NFC Ferrite Antenna with coax feed and U.FL connector

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### MECHANICAL SPECIFICATIONS

Color	Black
Weight	1.7 g
Coil + ferrite dimensions + tape	1.38x1.97x0.012 in
	(35x50x0.30) mm
Cable length	3.54 (90) in/mm
Cable type	1.13mm OD mini coax
Connector	U.FL compatible
Fixing system	Adhesive tape

### **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature

-40 to +85 ° C

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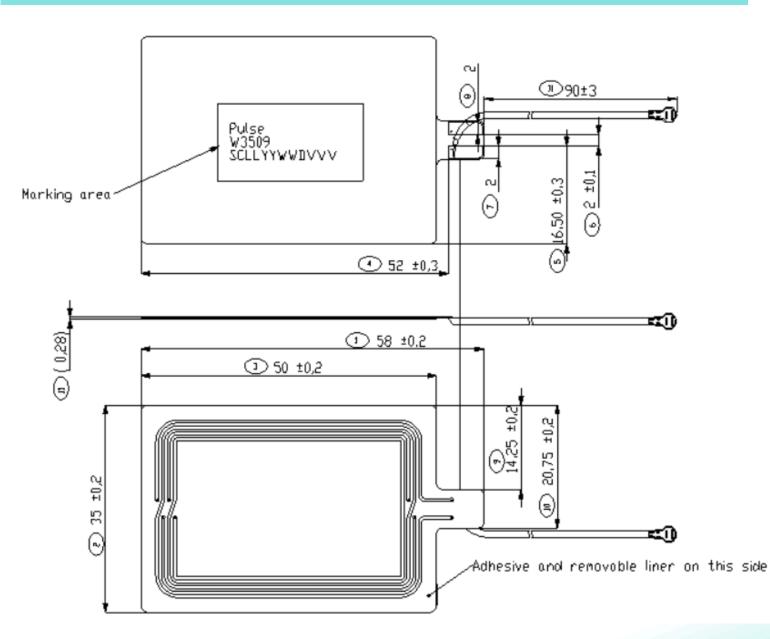


# Description: 13.56MHz NFC Ferrite Antenna with coax feed and U.FL connector

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### **MECHANICAL DRAWING**



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Series: NFC Antenna

Description: 13.56MHz NFC Ferrite Antenna with coax feed and U.FL connector

### PART NUMBER: W3509

## **OTHER SPECIFICATIONS**

### Mounting of NFC Antenna:

- 1. Recommend mounting of NFC antenna: Inside surface of device cover
- 2. Surface texture of face of joint: VDI 3400 NO. 24 (Ra 1.6) of equal
- 3. Double-curvature on face of joint are not recommended

# PACKAGING

Pack 100pcs antennae in sealed PE bag, 10 bags in one box

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