



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

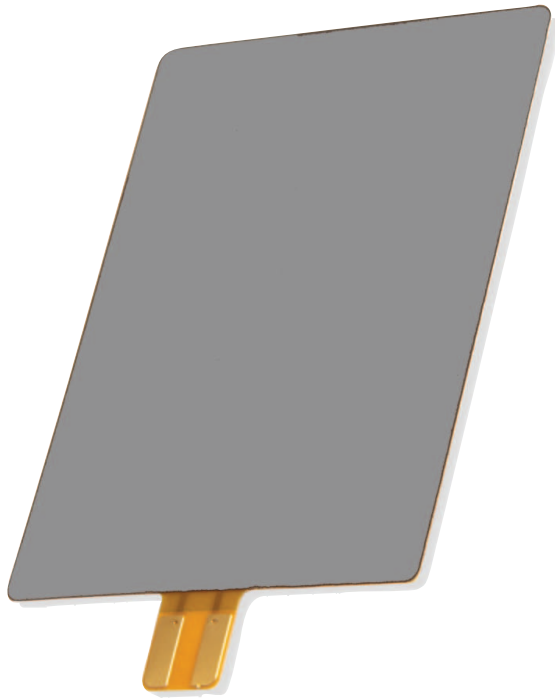
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Ferrite-backed Embedded NFC Antenna

Pulse Part Number W3580



The W3580 is a flexible Near Field Communication (NFC) antenna ideal for tight-space embedded products such as tablets, laptops, and payment terminal devices. It is intended for secure payment applications where connect distances are highly constricted to keep sensitive information safe.

The W3580 has a semi-flexible sintered ferrite backing designed to optimize magnetic fields, thus increasing the corresponding field strength of the antenna. Mounting the antenna is easily accomplished using the thin but aggressive holding adhesive backing. Recommended for mounting on the inside of battery covers, or locations where the antenna will be on or in close proximity to ground planes or displays.

Features

- Excellent performances on metal surfaces
- Thin, semi-flexible structure
- Easily assembles to device covers or mechanics
- Excellent for tap-n-pay applications
- Well-known antenna concept, reliable technology
- RoHS Compliant Product

Applications

- Mobile devices
- Payment terminals
- Sharing / pairing

Electrical Specifications

Frequency [MHz]*	13.56
Reading Distance [mm]*	20 EMVCo 15 Card (avg)
Impedance [Ω]*	50 / 80
Self Resonance Frequency [MHz]**	58
Inductance [μ H]**	0.95
Resistance [Ω]**	3.9
Q-Factor**	20
Matched Q Value***	5-15

Environmental Specifications

Operating Temperature [$^{\circ}$ C]	-40 to +85
---------------------------------------	------------

Mechanical Specifications

Color	Grey
Dimensions [in/mm]	1.38 x 1.97 x 0.018 (35 x 50 x 0.45)

NOTE: Electrical characteristics depend on distance from metal objects and the location of the antenna on the device. Measured in free space

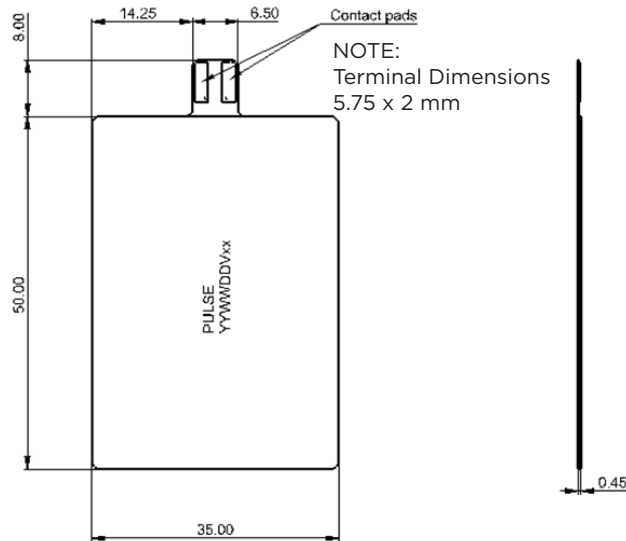
* With matching network

** Bare coil without any matching network

*** With matching network (adjustable). Typical network picture refer to page 2.

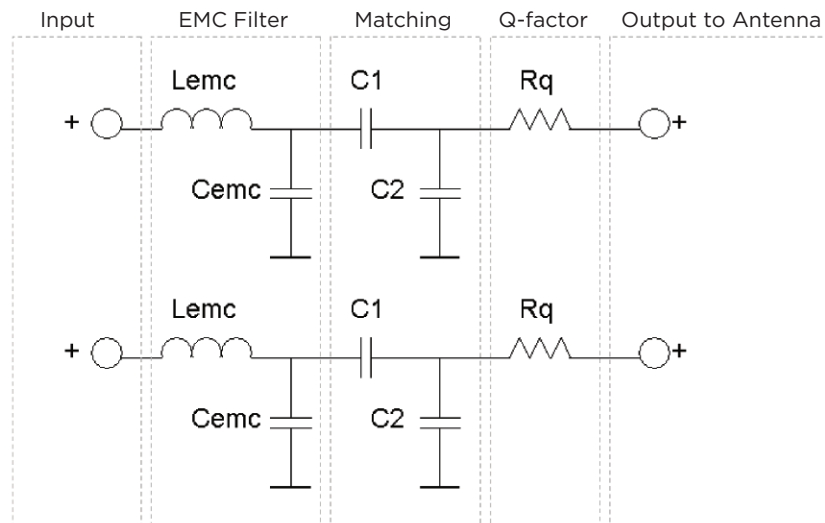
Ferrite-backed Embedded NFC Antenna

Pulse Part Number W3580



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	51 pF	Antenna matching component, value depends on the antenna environment Antenna matching
C2	198 pF	Antenna matching component, value depends on the antenna environment Antenna matching
Rq	0 Ohm	Rq resistors used to lower Q-value



For More Information

Pulse Worldwide Headquarters

12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Larsen Brand Antennas

3611 NE 112th Avenue
Vancouver, WA 98682
USA

Europe Headquarters

Pulse GmbH & Co. KG
Zeppelinstrasse 15
Herrenberg
Germany

Asia Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg,
10th Kejian Road, High-Tech Zone
Nanshan District, Shenzhen, PR China 518057

Pulse North Asia

3F, No. 198, Zhongyuan Road
Zhongli City, Taoyuan County 320
Taiwan R. O. C.

Pulse (Suzhou) Wireless Products Co., Inc.

99 Huo Ju Road, (#29 Bldg, 4th Phase)
Suzhou New District
Science & Tech Industrial Park
Jiangsu Province, Suzhou 215009 PR China

Tel: 858 674 8100
Fax: 858 674 8262

Tel: 360 944 7551
Fax: 360 944 7556

Tel: 49 7032 7806 0
Fax: 49 7032 7806 135

Tel: 86 755 33966678
Fax: 86 755 33966700

Tel: 886 3 4356768
Fax: 886 3 4356823

Tel: 86 512 6807 9998
Fax: 86 512 6809 8023

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2010, Pulse Electronics, Inc. All rights reserved.