



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 W3579



The W3579 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 or security access applications where connect distances are constricted to keep sensitive information safe.

The W3579 has a semi-flexible sintered ferrite backing designed to optimize magnetic fields, thus increasing the corresponding field strength of the antenna. The W3579 is a thin, flexible antenna that can be fed with customer-supplied spring clips, contacts, direct-solder methods or with the use of Pulse's own W9908/W9909 C-clips. 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
- 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]*	40 EMVCo 28 Grid Scan (avg)
Impedance [Ω]*	50 / 80
Self Resonance Frequency [MHz]**	42
Inductance [μ H]**	1.6
Resistance [Ω]**	3.60
Q-Factor**	37.8
Matched Q Value***	5-30

Environmental Specifications

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

Mechanical Specifications

Color	Black
Dimensions [in/mm]	1.38 x 1.97 x 0.012 (35 x 50 x 0.30)

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

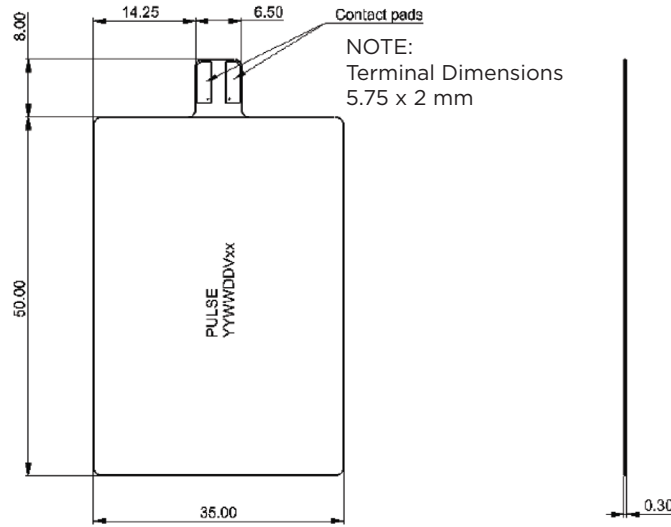
* With matching network

** 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 W3579



Recommended matching network

Component	Value	Note
L _{emc}	560 nH	Filter resonance at 15.4 MHz
C _{emc}	180 pF	Filter resonance at 15.4 MHz
C1	25 pF	Antenna matching component, value depends on the antenna environment Antenna matching
C2	180 pF	Antenna matching component, value depends on the antenna environment Antenna matching
R _q	0 Ohm	R _q resistors used to lower Q-value

