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NFC Flex Stamp Antenna

Pulse Part Number W7001



The W7001 is a small flexible Near Field Communication (NFC) antenna ideal for embedded products such as tablets, laptops, and payment terminal devices. It is intended for both secure payment or security access applications.

The W7001 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. It is recommended for mounting on the inside of plastics covers or carriers embedded in the device.

Features
- Very thin structure
- Easily assembles to device covers or mechanics
- Well-known antenna concept, reliable technology
- RoHS compliant product

Applications
- Mobile devices
- Payment terminals
- Sharing / pairing

Standards
- ISO/IEC 14443 A / B (MIFARE)
- ISO/IEC 18092
- JIS X 6319-4/FeliCa)
- NFCIP-1 / ECMA 3-40
- NFC Forum Tag 4

Electrical Specifications

Frequency [MHz]*	13.56
Reading Distance [mm]*	40 EMVCo 33 Grid Scan (avg)
Impedance [Ω]*	50 / 80
Self Resonance Frequency [MHz]**	100
Inductance [µH]**	0.9
Resistance [Ω]**	1.55
Q-Factor**	49
Matched Q Value***	5-30

Environmental Specifications

Operating Temperature [°C]	-40 to +85

Mechanical Specifications

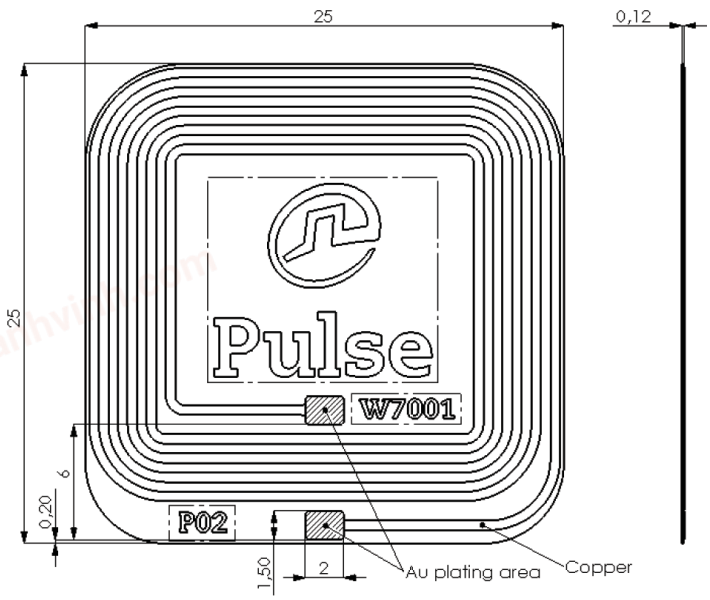
Color	Green
Dimensions [in/mm]	.98 x .98 x .005 (25 x 25 x 0.12)

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.

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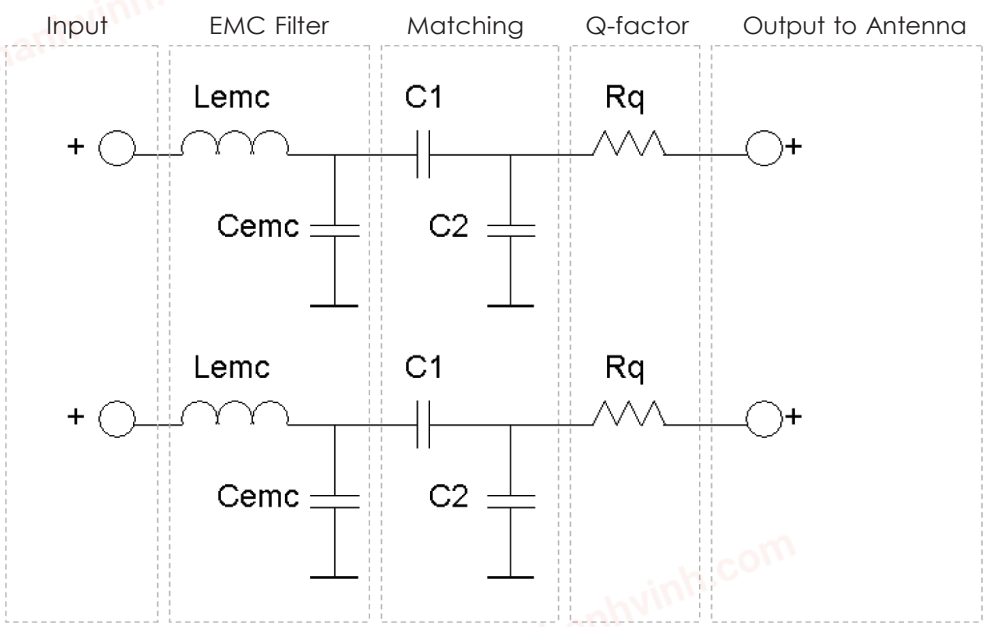
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Recommended matching network

Component	Value	Note
Lemc	560 nH	Filter resonance at 15.4 MHz
Cemc	180 pF	Filter resonance at 15.4 MHz
C1	35 pF	Antenna matching component, value depends on the antenna environment Antenna matching
C2 (Includes C2a and C2b values)	280 pF	Antenna matching component, value depends on the antenna environment Antenna matching
Rq	0 Ohm	Rq resistors used to lower Q-value



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Package
1000pcs in 1 PE-bag. 5000pcs in 1 carton box

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