

# NFC Ferrite Antenna (13.56MHz)

ANFCA-3225-A02



RoHS/RoHS II compliant



32 x 25 mm

## Moisture Sensitivity Level (MSL) – MSL 1

### FEATURES:

- Ultra thin flexible antenna structure (140 - 240  $\mu\text{m}$ )
- Peel and Stick antenna designs
- Ferrite sheet backing optimizes magnetic fields
- Wide operating temperature range -40°C to +85°C
- Matched to leading NFC controller IC's
- Customized solutions available

### APPLICATIONS:

- Mobiles
- NFC Payment readers
- Electronic wallets
- Health care ID scanners
- NFC data loggers transport
- Ticketing systems
- Museum information systems
- Electronic Parking Payments
- Industrial data collection.

### STANDARD SPECIFICATIONS:

#### Maximum Ratings

Item	Value
Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 85°C

#### Electrical Characteristics

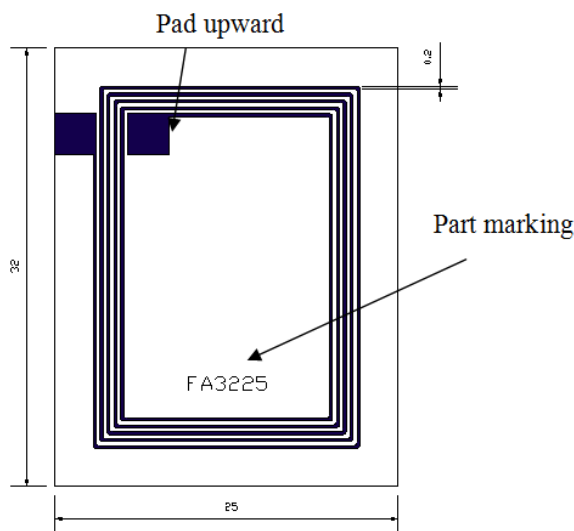
Item	Spec
Operating Frequency (MHz)	13.56
Inductance ( $\mu\text{H}$ )	1.8 $\pm$ 10%
Q-Factor min.	35
DC Resistance max. ( $\Omega$ )	1.0

Test equipment: Agilent E4991A / 5071C

#### Product Customization

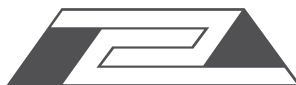
Products can be customized according to customer requirements. Features such as the dimensions or shape of the coil or its inductance can be customized. Please contact ABRACON or authorized distributor / agent for further details.

### OUTLINE DIMENSIONS:



Dimensions in mm

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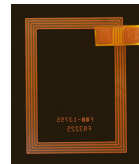
Revised: 02.17.14

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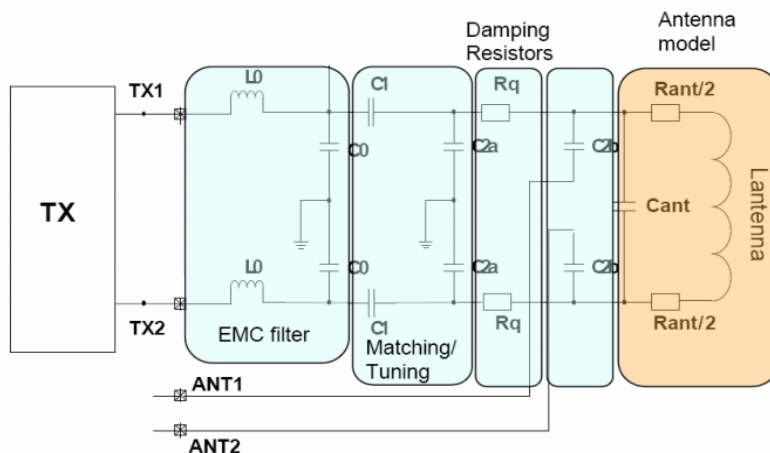


32 x 25 mm

## MATCHING CIRCUIT AND REFERENCE VALUES

Component	Value for reference only <sup>(1)</sup>	Notes
L0	560 / 330nH (NXP / Broadcom)	EMC filter resonance at 15.4MHz (NXP) and 20.6MHz (Broadcom).
C0	180pF	EMC filter resonance at 15.4MHz (NXP) and 20.6MHz (Broadcom).
C1	33pF	Antenna matching component, to achieve series resonance at 13.56MHz. (Note: Antenna matching component value may need optimization depending upon antenna environment)
C2 (Includes C2a and C2b values)	82pF	Antenna matching component, to achieve parallel resonance at 15MHz. (Note: Antenna matching component value may need optimization depending upon antenna environment).
Rq	0 Ohm	Damping resistor, the Rq resistor used to lower Q-value if above 35 Ohm, if needed.

Note (1) Values can change depending upon drive circuits, design of the antenna and environment.



**Reflow Profile:** Not recommended for reflow soldering

**Manual Soldering:** Recommended Soldering iron temperature setting: 330°C, 3 seconds max, 3 times max.

**Packaging:** 100pcs per polyphene bag / box

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