

NFC Ferrite Antenna (13.56MHz)

ANFCA-6040-A02



RoHS/RoHS II compliant



60 x 40mm

Moisture Sensitivity Level (MSL) – MSL 1

FEATURES:

- Ultra thin flexible antenna structure (140 - 240 μm)
- 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

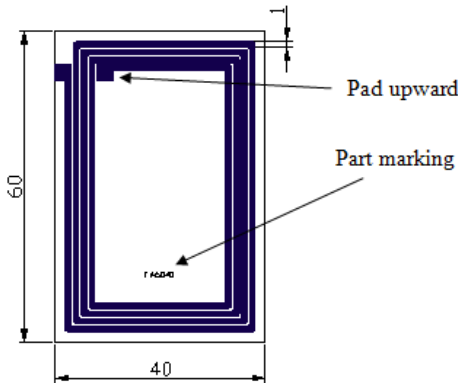
Item	Spec
Operating Frequency (MHz)	13.56
Inductance (μH)	1.9 \pm 10%
Q-Factor min.	40
DC Resistance max. (Ω)	1.0
Impedance with matching network (Ω)	80
Self Resonance Frequency (MHz)	45

Test equipment: Agilent E4991A / 5071C

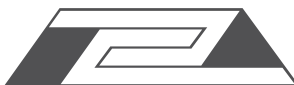
Product Customization

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 AND PCB LAND DRAWING



Dimensions in mm



NFC Ferrite Antenna (13.56MHz)

ANFCA-6040-A02



RoHS/RoHS II compliant



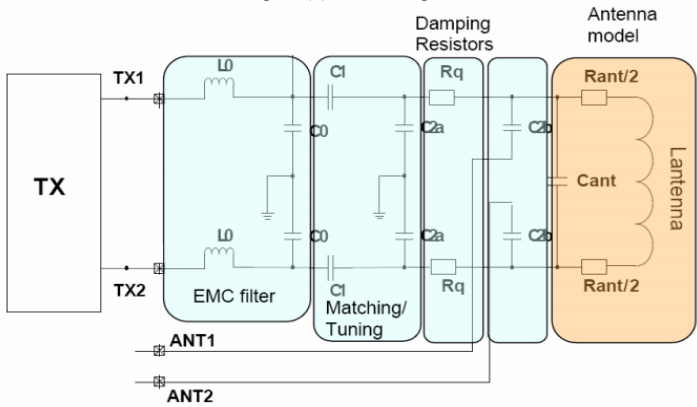
60 x 40mm

MATCHING CIRCUIT AND REFERENCE VALUES

Component	Value for reference only ⁽¹⁾	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	39pF	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.

Figure (2) – Matching Circuit



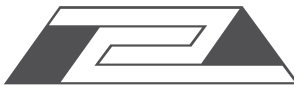
Reflow Profile: Not recommended for reflow soldering

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

Packaging: 100pcs per polyphene bag / box

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale

30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 02.17.14

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[ABRACON:](#)

[ANFCA-6040-A02](#)