

NFC Planar Ferrite Sheet Antenna (0.133)

Applications

- Mobile devices
- Payment, sharing & pairing and connect to tags

Features

- Frequency 13.56 MHz
- Size 35 x 50 x 0.133 mm
- Sintered ferrite (total thickness 0.08 mm)
- Magnetic field strength optimized by ferrite material type and thickness selection, and the radiator pattern
- Contacts in the antenna area, pad size 2 x 2 mm



Benefits

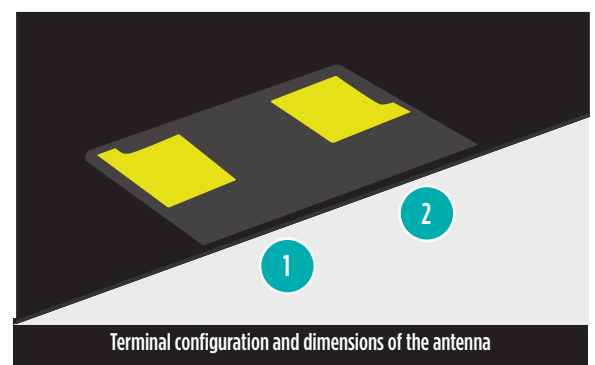
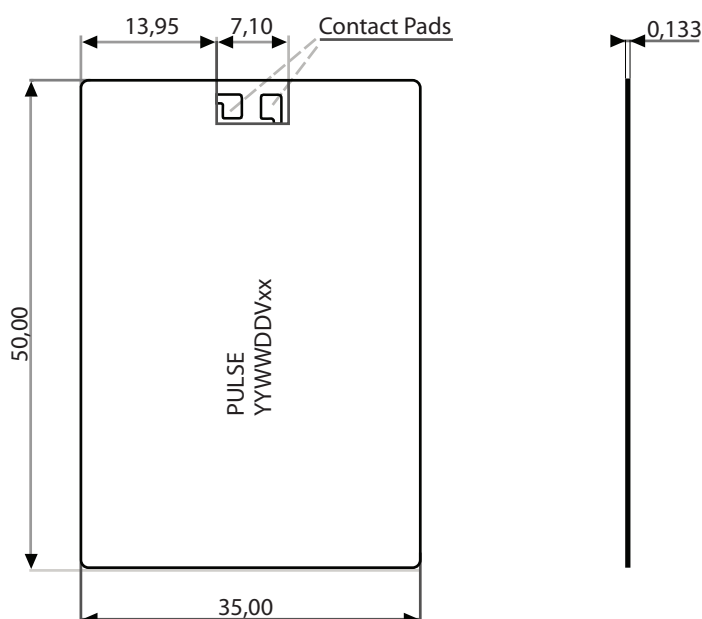
- Good performance on top of metal
- Thin structure
- Easily assembled to device covers
- The best reading position directed towards the back cover
- Well known antenna concept ready for mass production
- Contacts side by side (moved to the antenna area) enables easy implementation and smaller area

Electrical specifications @ +25 °C

Note: Electrical characteristics depend from distance of metal objects and the location of the antenna on the handset

Typical performance				
Frequency Range [MHz]	EMVCo Reading Distance [mm]	Reading Distance against NFC card avg. [mm]	Q-factor	Operating Temperature [°C]
13.56MHz	40	24	30	-40 to +85 °C

Terminal configuration and dimensions of the antenna



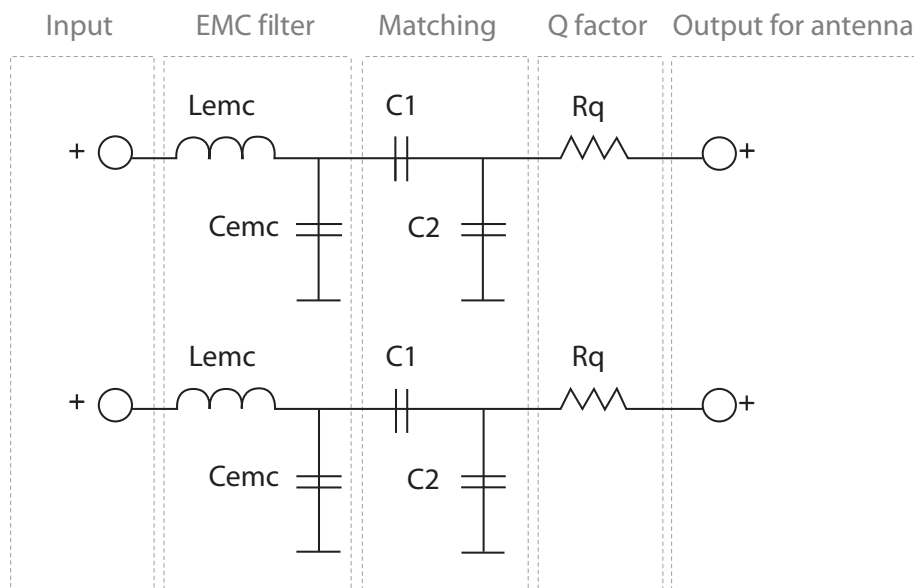
No.	TerminalName	Terminal Dimensions
1	Feed	2 x 2 mm
2	Feed	2 x 2 mm

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Mounting of NFC antenna

1. Recommend mounting of NFC antenna: Inside surface of Battery Cover.
2. Surface texture of face of joint: VDI 3400 NO. 24 (Ra 1.6) of equal
3. Double-curvature on face of joint are not recommended

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	27 pF	Antenna matching component, value depends on the antenna environment
C2	134 pF (includes C2a and C2b values)	Antenna matching component, value depends on the antenna environment
Rq	0 Ohm	Rq resistors used to lower Q-value if above 35

For More Information

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