

3DC15-HF

SMD 3D Coil

17.5x16.0x4.0mm MAX (3mH - 18mH)

NFC ANTENNAS



FEATURES

In the last few years, Communication technology by Near Field Communications (NFC) has experienced a lot of improvements. PREMO enlarges its NFC product range with the new 3DC15-HF series. A combination of 3 single coils oriented in the 3 space axis. The new 3D coil from PREMO RFID offers the possibility of mounting a single component instead of three, thus reducing cost, saving PCB space and increasing the circuit reliability. Sensitivity, low profile and small size are the key of this RFID innovative component. **Best choice for keyless entry systems the three tri-rectangular windings ensure optimum field sensing regardless position.**



01 CHARACTERISTICS

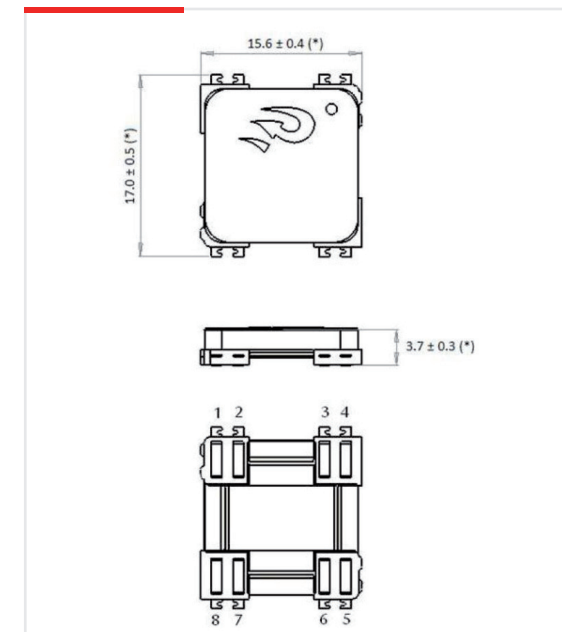
- › Size: 17,5x16,0x4,0 mm
- › High drop test resistance (up to 500 times 1 m) due to a maximized pin area.
- › High stability in temperatur (-40°C to +85°C).
- › Isotropic version available.
- › With cover cap or labelled.
- › Taped & Reeled.
- › Designed for 13,56MHz.

02 APPLICATIONS

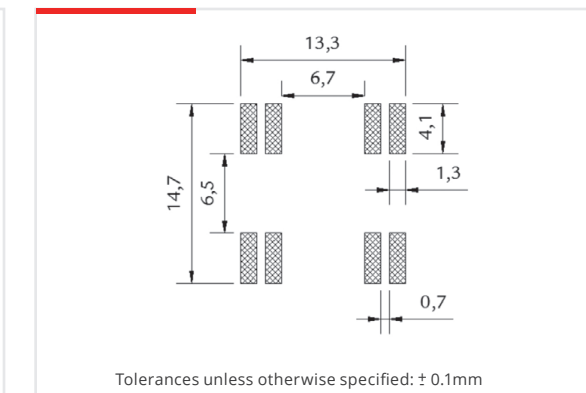
- › NFC applications

03 SPECIFICATIONS

DIMENSIONS (mm)



RECOMMENDED PAD-LAYOUT



ELECTRICAL SPECIFICATIONS

| | L x,y,z (μH) | L parallel (μH) | Q min x,y | Q min z | SRF x,y,z (MHz) Min | DCR x,y (mΩ) Max | DCR z (mΩ) Max | Dimensions (mm) Max |
|---------------|-----------------|--------------------|--------------|------------|---------------------------|------------------------|----------------------|------------------------|
| 3DC15HF-0003K | 3 ± 10% | 1 ± 10% | 24 | 18 | 25 | 352 | 561 | 17,5 x 16,0 x 4,0 |
| 3DC15HF-0006K | 6 ± 10% | 2 ± 10% | 20 | 15 | 25 | 506 | 737 | 17,5 x 16,0 x 4,0 |
| 3DC15HF-0009K | 9 ± 10% | 3 ± 10% | 20 | 10 | 25 | 594 | 836 | 17,5 x 16,0 x 4,0 |
| 3DC15HF-0018K | 18 ± 10% | 6 ± 10% | 15 | 6 | 25 | 836 | 1012 | 17,5 x 16,0 x 4,0 |

This specification chart is a reference guide for the most common required values at working frequencies of 13,56MHz. Any other inductance value at HF or tighter tolerances can be provided. Please contact our sales department for any inquiry.