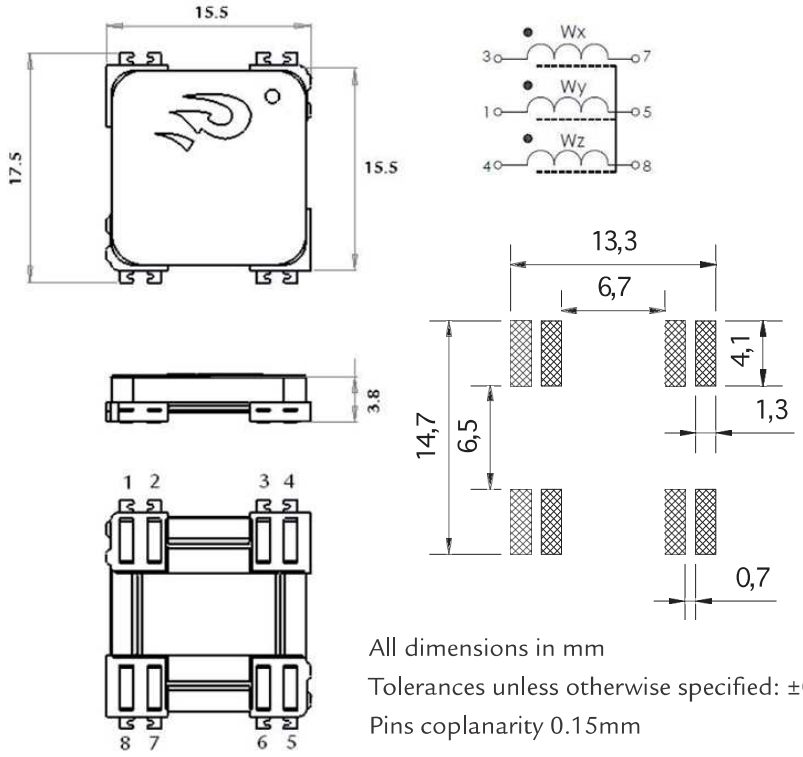
# 3DC1515

## SMD 3D Coil 17.5x15.5x3.8 mm MAX (2.47 mH – 10mH)

### Characteristics

- This 3D coil, RFID innovate component, highlights for its high sensitivity, low profile and small size.
- Ensures optimal field sensing regardless position.
- Best choice for Keyless Entry Systems.
- High drop test resistance (up to 500 times 1m) due to a maximized pin area.
- High stability in temperature (-40°C to +85°C).
- Isotropic version available.
- With cover cap or labeled.
- Designed for 125 kHz and 134 kHz.

### Dimensions and recommended pad layout




All dimensions in mm

Tolerances unless otherwise specified: ±0.20mm

Pins coplanarity 0.15mm

### Main applications

Automotive.

- Pasive keyless entry and Keyless Go systems.
- TPMS with wake up functions.

Industrial.

- Access control.
- Tracking devices.

### Electrical specifications

| P/N | L x,y,z (mH) | Cres (pF) | Qx,y typ | SRFx,y (KHz) min | SRFz(KHz) min | RDC max x,y (Ω) | RDC max z(Ω) | Sensitivity x,y,z (mVpp/App/m) |
|---|---|---|---|---|---|---|---|---|
| 3DC15-0247J | 2.47 | 656 | >23 | >500 | >1000 | 75 | 75 | >55 |
| 3DC15-0258J | 2.58 | 628 | >23 | >500 | >800 | 75 | 75 | >57 |
| 3DC15-0345J | 3.45 | 470 | >27 | >450 | >800 | 85 | 100 | >67 |
| 3DC15-0405J | 4.05 | 400 | >27 | >400 | >800 | 98 | 98 | >72 |
| 3DC15-0477J | 4.77 | 340 | >28 | >380 | >800 | 100 | 136 | >85 |
| 3DC15-0491J | 4.91 | 330 | >27 | >350 | >750 | 105 | 140 | >85 |
| 3DC15-0720J | 7.20 | 225 | >30 | >330 | >700 | 120 | 172 | >95 |
| 3DC15-1000J | 10.00 | 162 | >25 | >250 | >550 | 165 | 258 | >105 |

This chart is a reference guide for the most common required values at working frequency of 125 kHz. Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance values in the different winding axis. Please contact our sales department for any inquiry.

L and Q factor measured at 125 kHz, 1 Vac.

Sensitivity measured with Helmholtz coils H=1.27 App/m @125 kHz. Contact us for measurement specification.

SRF: Self Resonant Frequency of the coil.