

# 3DC11AOI

SMD 3D Coil AOI 12.4x11.4x3.6 mm

## Features

Small 3D coil version designed to achieve a very good electrical performance in the smallest dimensions.

Keyless entry systems is a typical application for this coil, the isotropy is often sought in RF antenna. In transponder applications, this feature has been achieved by a monolithic single core, wound in the 3 space axis with the aim of covering the maximum space orientation. This small size 3D coil offers the possibility of assembly in one single component 3 coils with full functionality, thus reducing cost, saving PCB space and increasing the circuit reliability.

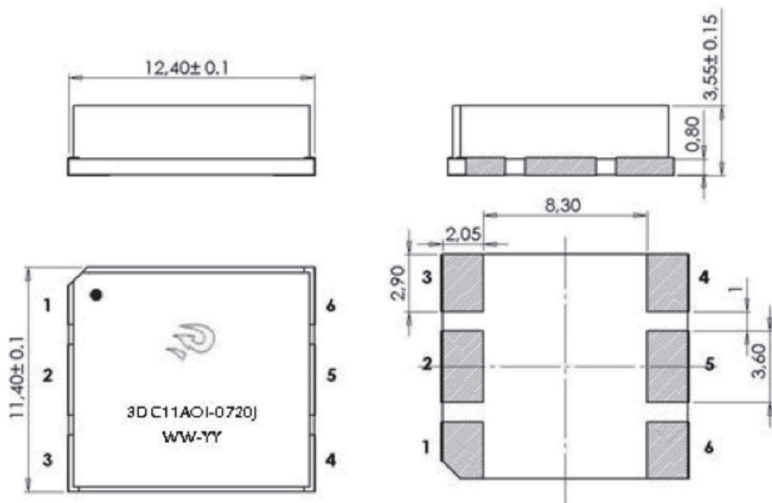


## Characteristics

- Smallest size 12,4x11,4x3,6mm.
- Very good electrical performance.
- High stability in temperature (-40 °C to +85 °C).
- The inductivity in each axis can be customized to achieve customer requirements.
- Designs at lower frequencies 20kHz-300kHz show a very good electrical performance.

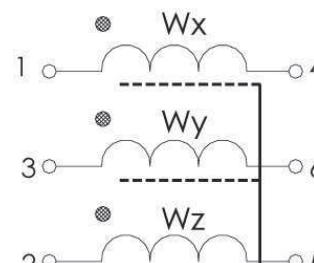
3-Axes Transponder Inductor (3DCoils)

## Dimensions and pad layout



All Dimensions in mm  
 Pins Coplanarity 0.10mm  
 General Tolerances unless indicated  $\pm 0.1$ mm

## Schematic Diagram



## Electrical specifications

Code	L x,y (mH)	L z (mH)	Ox,y Min	O z Min	F (kHz)	SRF x,y (kHz) Min	SRF z (kHz) Min	DCR x,y ( $\Omega$ ) Max	DCR z ( $\Omega$ ) Max	Sensitivity x,y (mVpp/App/m) Min	Sensitivity z (mVpp/App/m) Min	Length (mm)	Width (mm)	Height (mm) MAX
3DC11AOI-0720J	7.20	7.20	21	18	125	250	400	110	213	90	77	12.4	11.4	3.60
3DC11AOI-S-2000J	20	15	4.5	4	20	150	300	440	330	20	18	12.4	11.4	3.60