

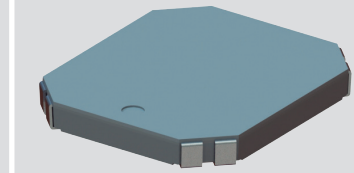
New

## 3DC14EM-ULP

SMD 3D Coil Ultra-Low-Profile

14x12x1.65mm (2.38/2.38/7.8mH)

3-AXIS TRANSPONDER INDUCTOR (3DCOILS™)



### APPLICATIONS

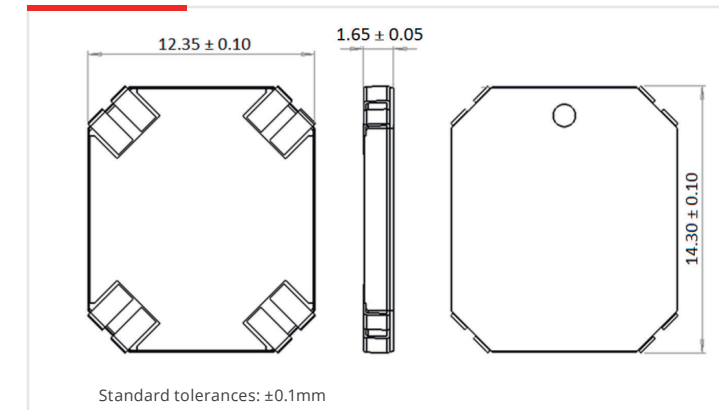
- › Smartphones
- › Automotive
- › Acces Control with low profiles devices
- › Access control in mobile devices.
- › Electro Magnetic Motion Tracking using Smartphones as handles.
- › EM Tracking of Smart Phones

## 01 CHARACTERISTICS

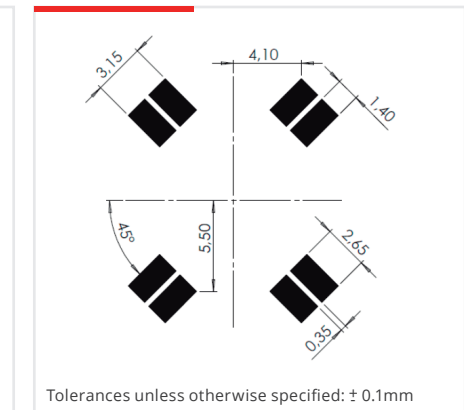
- › 3 coils in one component, oriented in the 3 space axes with full functionality
- › Ultra-Low profile. Best in market. Suitable for Smartphone.
- › Allows Automatic Optical Inspection
- › High sensitivity (>80mV/A/m)
- › Available with different inductance values
- › Very stable electrical properties in full operational operative range (-40°C → +85°C)
- › Suitable for Pick&Place SMD assembly

## 02 SPECIFICATIONS

### DIMENSIONS (mm)



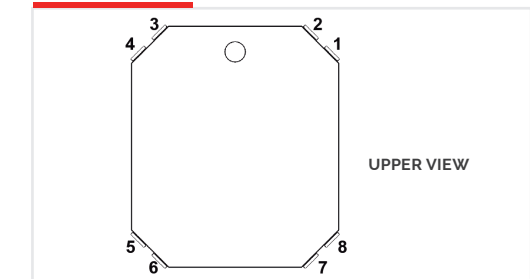
### RECOMMENDED PAD-LAYOUT



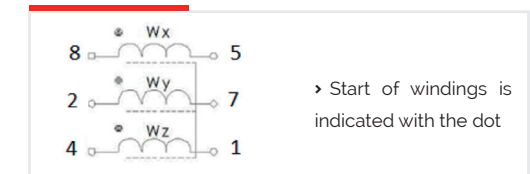
### ELECTRICAL SPECIFICATIONS

	3DC14EM-ULP-0238J	3DC14EM-ULP-0477J
Lx(mH)	2.38 <sup>(1)</sup>	4.77 <sup>(1)</sup>
L,y (mH)	2.38 <sup>(1)</sup>	6.30 <sup>(1)</sup>
Lz (mH)	7.2 <sup>(1)</sup>	10.5 <sup>(1)</sup>
Qx,y min	15	14.8
Qz min	20	25
SRFx,y (kHz) Min	350	250
SRFz (kHz) Min	900	600
DCRx,y (Ω) Max	84	198
DCRz (Ω) Max	172	264
Sensitivity x,y,z (mVpp/App/m) min	50	80
Dimensions (mm) Max	14.4 x 12.2 x 1.70	14.4 x 12.2 x 1.70

### PINS MARKING



### ELECTRICAL DIAGRAM



<sup>(1)</sup> Other tolerances under request. Inductance tolerance ±5%. Please contact PREMO for any inquiry.

This chart is a reference guide for the most common required values at working frequency of 125kHz. Please contact our sales department for any inquiry. Sensitivity measured with Helmholtz coils H-8.36 App/m @125kHz. Contact us for measurement specification.

SRF: Self-resonant frequency of the coil