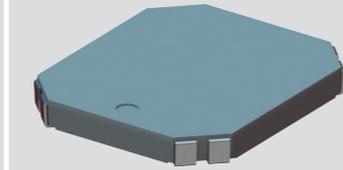


New

3DC14EM-ULP

SMD 3D Coil Ultra-Low-Profile
14x12x1.65mm (2.38-4.77mH)

3-AXIS TRANSPONDER INDUCTOR (3DcoilS™)



APPLICATIONS

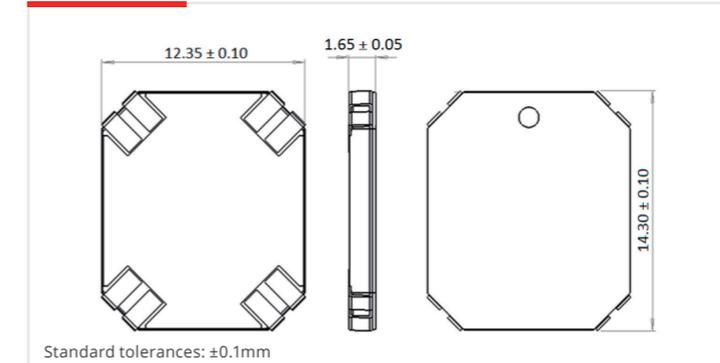
- › Smartphones
- › Automotive
- › Acces Control with low profiles devices
- › Access control in mobile devices.
- › Electro Magnetic Motion Tracking using Smartphones as handles.
- › EM Tracking of Smart Phones

01 CHARACTERISTICS

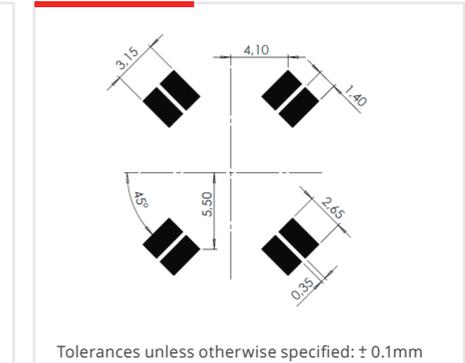
- › 3 coils in one component, oriented in the 3 space axes with full functionality
- › Ultra-Low profile. Best in market. Suitable for Smartphone.
- › Allows Automatic Optical Inspection
- › High sensitivity (>80mV/A/m)
- › Available with different inductance values
- › Very stable electrical properties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

02 SPECIFICATIONS

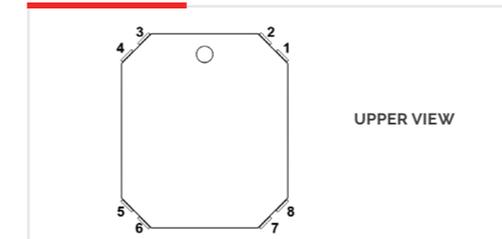
DIMENSIONS (mm)



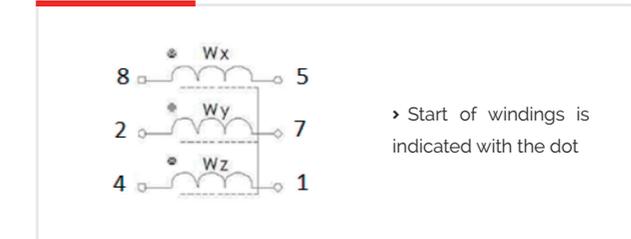
RECOMMENDED PAD-LAYOUT



PINS MARKING



ELECTRICAL DIAGRAM



ELECTRICAL SPECIFICATIONS

| CODE | Lx (mH) | Ly (mH) | Lz (mH) | Qx,y min | Qz min | SRFx,y (kHz) min | SRFz (kHz) min | DCR x,y (Ω) Max | DCRz (Ω) Max | Sensitivity x,y,z (mVpp/ App/m) min | Dimensions (mm) Max |
|-------------------|---------------------|---------------------|---------------------|----------|--------|------------------|----------------|-----------------|--------------|-------------------------------------|---------------------|
| 3DC14EM-ULP-0238J | 2.38 ⁽¹⁾ | 2.38 ⁽¹⁾ | 7.2 ⁽¹⁾ | 15 | 20 | 350 | 900 | 84 | 172 | 50 | 14.4 x 12.2 x 1.70 |
| 3DC14EM-ULP-0477J | 4.77 ⁽¹⁾ | 6.30 ⁽¹⁾ | 10.5 ⁽¹⁾ | 14.8 | 25 | 250 | 600 | 198 | 264 | 80 | 14.4 x 12.2 x 1.70 |
| 3DC14EM-ULP-0450J | 4.50 ⁽¹⁾ | 4.50 ⁽¹⁾ | 7.60 ⁽¹⁾ | 14.8 | 25 | 250 | 600 | 150 | 176 | 60 | 14,4 x 12.2 x 1.70 |

⁽¹⁾ 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