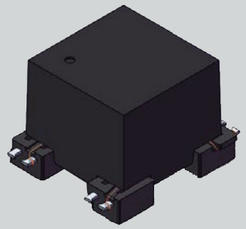
3DCC08

3D Coil Cube receiver sensor for VR magnetic tracking system

16.5x14.8x11.8mm (300-600uH/2-10mH)

Rx EM MOTION TRACKING SENSORS



FEATURES

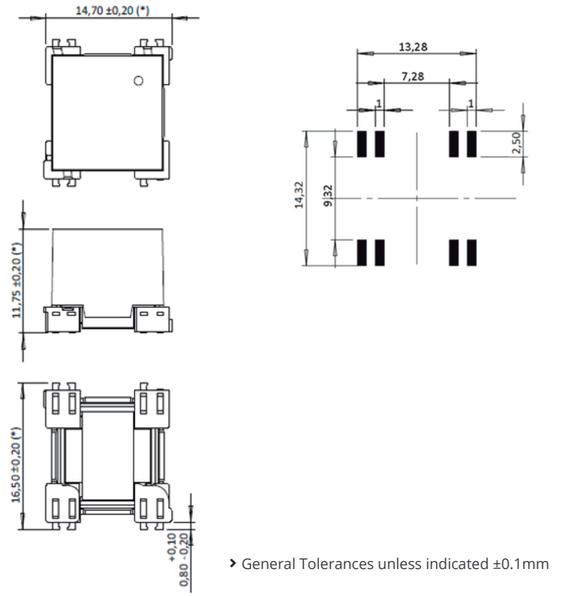
Three axis magnetic sensor for magnetic tracking sensor systems. Very good performance/size ratio, with isotropic response. Used as receiver in VR/AR applications (gaming, etc.) and motion capture applications. Very low latency compared with other motion tracking technologies.

01 CHARACTERISTICS

- High axis symmetry (X,Y,Z), repeatability (very good isotropy) and accuracy (up to 1% tolerances)
- Magnetic Sensitivity: 18 mVpp / App / m @20kHz.(high inductance)
- Magnetic Sensitivity: 4.5 mVpp / App / m @20kHz (low inductance)
- Mechanical Drop & Vibration compliant.
- Mounting method: SMT (Taped & Reeled).
- -20°C to 85°C Temperature Performance.
- Multiple frequencies available (typ 60kHz, 125kHz, 134kHz)
- According industry and safety standards: UL94-V0
- High X/Y/Z symmetry and repeatability.

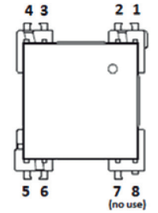
02 DIMENSIONS

DIMENSIONS AND RECOMMENDED PAD-LAYOUT (mm)



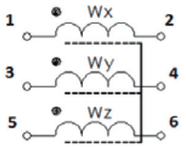
› General Tolerances unless indicated ±0.1mm

PINOUT



› Pins Coplanarity 0.15mm.

ELECTRICAL DIAGRAM



ELECTRICAL SPECIFICATIONS | 20kHz

Code	Lx,y,z nom	Qx,y,z nom(1)	f(kHz)	SRF x,y (kHz) Min	SRFz (kHz) Min	DCRx (Ohm) Max	DCRy (Ohm) Max	DCRz (Ohm) Max	Sensit. x,y z (mV/A/m) Min (*)
3DCC08-A-0038J	343 / 313 / 327 µH	4.3/4.7/3.5	20	500	500	10.8	9.5	11.9	4
3DCC08-A-0550J	5.4 / 5.5 / 5.1 mH	4.1/4.4/3.4	20	200	150	178	176	198	17.5

This chart is a reference guide for the most common required values at working frequency of 20kHz. Any other inductance value at LF or tighter tolerances can be provided. Please contact our sales department for any inquiry. Sensitivity measured with Helmholtz coils H=11.37 App/m @20kHz. Contact us for measurement specification.
SRF: Self-resonant frequency of the coil