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 sensors 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.

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).
- -20ºC to 85ºC Temperature Performance.
- Multiple frequencies available (typ 60kHz, 125kHz, 134kHz)
- According industry and safety standards: UL94-V0
- High X/Y/Z symmetry and repeatability.

DIMENSIONS
Dimensions and recommended pad-layout (mm)

ELECTRICAL SPECIFICATIONS | 20kHz

<table>
<thead>
<tr>
<th>Code</th>
<th>Lx,y,z nominal (µH)</th>
<th>Qx,y,z nominal</th>
<th>f(kHz)</th>
<th>SRF x/y/z (kHz) Min</th>
<th>SRF z (kHz) Min</th>
<th>DCRx (Ohm) Max</th>
<th>DCRy (Ohm) Max</th>
<th>DCRz (Ohm) Max</th>
<th>Sensit. x/y/z (mV/A/m) Min*1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3DCC08-A-0038</td>
<td>343 / 313 / 327 µH</td>
<td>4.3/4.7/3.5</td>
<td>20</td>
<td>500</td>
<td>500</td>
<td>10.8</td>
<td>9.5</td>
<td>11.9</td>
<td>4</td>
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<tr>
<td>3DCC08-A-0550</td>
<td>5.4 / 5.5 / 5.1 mH</td>
<td>4.5/4.4/4.3</td>
<td>20</td>
<td>200</td>
<td>150</td>
<td>178</td>
<td>176</td>
<td>198</td>
<td>17.5</td>
</tr>
</tbody>
</table>

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=14.37 App/m @20kHz. Contact us for measurement specification.

SRF: Self-resonant frequency of the coil

CODE
Lx,y,z nom
Qx,y,z nom
f(kHz)
SRF x/y/z (kHz) Min
SRF z (kHz) Min
DCRx (Ohm) Max
DCRy (Ohm) Max
DCRz (Ohm) Max
Sensit. x/y/z (mV/A/m) Min*1