3D Coil Cube emitter for VR magnetic tracking system
30.7x30.75x30.7mm (300-600µH/1.0-1.5mH)
Tx EM MOTION TRACKING ANTENNAS

**3DCC20**

**FEATURES**
Emitter 3D cubic magnetic antenna for magnetic tracking sensor systems. For VR/AR applications (gaming, etc.) and motion capture applications. Very low latency compared with other motion tracking technologies.

**CHARACTERISTICS**
- Medium size Emitter 3DCoilCube for Magnetic tracking systems for Virtual Reality Systems
- High axis symmetry (X,Y,Z), repeatability (very good isotropy) and accuracy (up to 1% tolerances)
- Magnetic Sensitivity: 32 mVpp / App / m @20kHz (High inductance)
- Magnetic Sensitivity: 18 mVpp / App / m @20kHz (Low inductance)
- Mechanical Drop and Vibration compliant.
- Mounting method: PTH.
- -20ºC to 85ºC Temperature Performance.
- According industry and safety standards: UL94-V0
- Dimensions: 30.7x30.75x30.7 mm

**DIMENSIONS AND RECOMMENDED PAD-LAYOUT (mm)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Lx,y,z nom</th>
<th>Qx,y,z nom</th>
<th>f (kHz)</th>
<th>SRF x,y,z (kHz) Max/Min</th>
<th>DCRx (Ohm) Max</th>
<th>DCRy (Ohm) Max</th>
<th>DCRz (Ohm) Max</th>
<th>Magnetic Field x,y,z(@1m,20kHz,0.25Arms) (nT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3DCC20-A-0030J</td>
<td>300 / 295 / 300 µH</td>
<td>15.1/14.3/13.1</td>
<td>20</td>
<td>500</td>
<td>2.6</td>
<td>2.8</td>
<td>2.8</td>
<td>4.4 nT</td>
</tr>
<tr>
<td>3DCC20-A-0110J</td>
<td>1.16 /1.14 /1.11 mH</td>
<td>26.3/27.8/25.1</td>
<td>20</td>
<td>250</td>
<td>5.1</td>
<td>4.9</td>
<td>5.4</td>
<td>7.0 nT</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=11.37 App/m (4kHz). Contact us for measurement specification.

**SRF:** Self-resonant frequency of the coil.

**02 DIMENSIONS**

**ELECTRICAL DIAGRAM**

**PINS MARKING**

**ELECTRICAL SPECIFICATIONS | 20kHz**

- General Tolerances unless indicated ±0.1mm