The 4513TC is Coilcraft’s best performing transponder coil designed for RFID applications at 125 kHz. It offers better sensitivity, greater read distance and higher SRF than other coils its size.

The coil is wound on a plastic base, providing great durability and allowing this part to withstand harsh mechanical shock. With operating temperature range to 125°C, these coils are ideal for a wide range of applications.

In addition to our standard models, Coilcraft can design transponder coils to operate at other frequencies.

To request free evaluation samples, contact Coilcraft or visit www.coilcraft.com.

Terminations RoHS compliant gold over nickel over phos bronze.

Weight 280 – 335 mg

Ambient temperature -40°C to +125°C

Storage temperature Component: -40°C to +125°C.

Tape and reel packaging: -40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Temperature coefficient of inductance +50 to +210 ppm/°C

Failures in Time (FIT) / Mean Time Between Failures (MTBF)
One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 2500 per 13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 8 mm pocket spacing, 2.75 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.
### RFID Transponder Coils – 4513TC

#### Typical L vs Frequency

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Inductance (mH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>0.40 mH</td>
</tr>
<tr>
<td>0.1</td>
<td>2.38 mH</td>
</tr>
<tr>
<td>1</td>
<td>4.9 mH</td>
</tr>
<tr>
<td>10</td>
<td>7.2 mH</td>
</tr>
</tbody>
</table>

#### Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>0.03 in</td>
</tr>
<tr>
<td>Width</td>
<td>0.337 in</td>
</tr>
<tr>
<td>Height</td>
<td>0.0138 in</td>
</tr>
</tbody>
</table>

Dimensions are in inches (mm).

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**Recommended Land Pattern**

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This product may not be used in medical or high risk applications without prior Coilcraft approval.

Specification subject to change without notice.

Please check web site for latest information.