Micro Spring™ Air Core Inductors

- Small air core inductors feature high Q and tight tolerances
- Acrylic jacket provides a flat top for pick and place
- Solder coated leads ensure reliable soldering

Terminations: RoHS compliant tin-silver over copper. Other terminations available at additional cost.

Weight:
- 0906: 10–12 mg
- 1606: 18–27 mg

Ambient temperature: -40°C to +125°C with Irms current

Maximum part temperature: +140°C (ambient + temp rise)

Storage temperature:
- Component: -40°C to +140°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

Temperature Coefficient of Inductance (TCL):
- +5 to +70 ppm/°C

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

Packaging:
- 0906: 500 per 7" reel
- 1606: 500 per 7" reel

 terminations available at additional cost.

Weight:
- 0906: 10 – 12 mg
- 1606: 18 – 27 mg

Inductance measured at 800 MHz using Agilent/HP 4286 or equivalent with a Coilcraft SMD-A fixture and correlation.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at 800 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture or equivalents.

5. SRF measured using an Agilent/HP 8720D or equivalent with a Coilcraft SMD-D fixture.

6. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter or equivalent.

7. Current that causes a 15°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

8. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Part number Inductance (nH) Percent tolerance Q min SRF min (GHz) DCR max (mOhm) Irms (A)

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns</th>
<th>Inductance</th>
<th>Percent tolerance</th>
<th>Q min</th>
<th>SRF min (GHz)</th>
<th>DCR max (mOhm)</th>
<th>Irms (A)</th>
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</thead>
<tbody>
<tr>
<td>0906-2_L_</td>
<td>2</td>
<td>1.65</td>
<td>10,5,2</td>
<td>100</td>
<td>10.0</td>
<td>4.0</td>
<td>1.6</td>
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<tr>
<td>0906-3_L_</td>
<td>3</td>
<td>2.55</td>
<td>5,2,1</td>
<td>100</td>
<td>8.2</td>
<td>5.0</td>
<td>1.6</td>
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<tr>
<td>0906-4_L_</td>
<td>4</td>
<td>3.85</td>
<td>5,2,1</td>
<td>100</td>
<td>7.5</td>
<td>6.0</td>
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<tr>
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<td>5.40</td>
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<tr>
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<td>5.60</td>
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<td>5.2</td>
<td>13</td>
<td>1.6</td>
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<tr>
<td>1606-10_L_</td>
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<td>12.55</td>
<td>5,2,1</td>
<td>100</td>
<td>4.6</td>
<td>14</td>
<td>1.6</td>
</tr>
</tbody>
</table>

1. When ordering, specify tolerance, termination and packaging codes:

- Tolerance: F = 1%, G = 2%, J = 5%, K = 10% (Table shows stock tolerances in bold.)
- Termination: L = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
- Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape, 500 parts per full reel. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge)
- B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

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Coilcraft Inc. 2021
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.
Micro Spring™ Air Core Inductors

Typical L vs Frequency – 0906 Series

Typical Q vs Frequency – 0906 Series

Typical L vs Frequency – 1606 Series

Typical Q vs Frequency – 1606 Series

Recommended Land Patterns

Designer’s Kit C308 contains 12 each of all values.
Designer’s Kit C308-2 contains 12 each of all 2% values.