Chip Inductors - 0604HQ (1610)

• Combines the exceptionally high Q of an air core inductor with the rugged construction of a ceramic body component.
• Provides intermediate inductance values not available in Coilcraft’s 0603, 0402 or 0906 product families.

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 (nH)</th>
<th>Percent tolerance3</th>
<th>Q min4</th>
<th>L typ5 900 MHz Q typ</th>
<th>L typ 1.7 GHz Q typ</th>
<th>SRF min5 (GHz)</th>
<th>DCR max6 (Ohms)</th>
<th>Irms7 (A)</th>
<th>Color code8</th>
</tr>
</thead>
<tbody>
<tr>
<td>0604HQ-1N1XJR_</td>
<td>1.15</td>
<td>5</td>
<td>25</td>
<td>1.2</td>
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<td>2.6</td>
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<td>0604HQ-4N5XJR_</td>
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<td>5</td>
<td>60</td>
<td>106</td>
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<td>0.032</td>
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<td>60</td>
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<td>60</td>
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<td>7.4</td>
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<td>0.035</td>
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<td>11.5</td>
<td>160</td>
<td>4.1</td>
<td>0.037</td>
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</tbody>
</table>

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

   0604HQ-10NXJRC

Termination: R = RoHS matte Sn over Ni over Ag-Pt-glass frit. Special order:
   T = RoHS SnAgCu (95.5/4.0/0.5)
   S = Not RoHS Sn/Pb (63/37).

Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 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.

2. Inductance measured at 500 MHz using a Coilcraft SMD-A fixture in an Agilent/HP 4286 impedance analyzer with Coilcraft-provided correlation pieces.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at 500 MHz using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.

5. For SRF less than 6 GHz, measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture. For SRF greater than 6 GHz, measured using an Agilent/HP 8722ES network analyzer and a Coilcraft SMD-D test fixture.

6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.

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. Each part is marked with a single dot. The color dots are not unique identifiers and correspond to multiple inductance values.

9. Electrical specifications at 25°C.

10. Temperature coefficient of inductance: +25 to +126 ppm/°C

Designers’ Kit C351 contains 10 each of all values

Core material: Ceramic

Terminations: RoHS matte Sn over Ni over Ag-Pt-glass frit. Other terminations available at additional cost.

Weight: 4.6 – 5.6 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): +25 to +126 ppm/°C

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

Packaging: 2000 per 7″ reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.27 mm pocket depth

0604HQ Series (1610)

Typical Q vs Frequency

Typical L vs Frequency

Terminal wraparound: approx 0.007/0.18 both ends

Note: Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0.152 mm.