Chip Inductors – 1008AF (2520)

- Lowest DCR and highest current rating of our 1008 size inductors
- Available in 14 inductance values from 0.9 to 10 µH.

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

<table>
<thead>
<tr>
<th>Part number1</th>
<th>Inductance2 (µH)</th>
<th>Percent tolerance3</th>
<th>Q typ4</th>
<th>SRF min5 (MHz)</th>
<th>DCR max6 (Ohms)</th>
<th>Isat7 (A)</th>
<th>Irms8 (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1008AF-901X_R_</td>
<td>0.9</td>
<td>10,5</td>
<td>25</td>
<td>415</td>
<td>1.00</td>
<td>1.4</td>
<td>1.3</td>
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<td>1008AF-112X_R_</td>
<td>1.1</td>
<td>10,5</td>
<td>24</td>
<td>376</td>
<td>1.05</td>
<td>1.3</td>
<td>1.2</td>
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<td>1008AF-132X_R_</td>
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<td>10,5</td>
<td>37</td>
<td>198</td>
<td>1.10</td>
<td>1.2</td>
<td>1.1</td>
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<td>1008AF-152X_R_</td>
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<td>10,5</td>
<td>22</td>
<td>135</td>
<td>0.125</td>
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<td>1008AF-192X_R_</td>
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<td>1008AF-222X_R_</td>
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<td>21</td>
<td>106</td>
<td>0.155</td>
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<td>1008AF-272X_R_</td>
<td>2.7</td>
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<td>70</td>
<td>0.190</td>
<td>0.80</td>
<td>0.90</td>
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<td>1008AF-332X_R_</td>
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<td>59</td>
<td>0.210</td>
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<td>0.80</td>
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<td>1008AF-392X_R_</td>
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<td>0.220</td>
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<td>1008AF-472X_R_</td>
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<td>48</td>
<td>0.435</td>
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<td>1008AF-582X_R_</td>
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<td>37</td>
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<td>1008AF-682X_R_</td>
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<td>0.315</td>
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<td>1008AF-822X_R_</td>
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<td>1008AF-103X_R_</td>
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<td>22</td>
<td>0.460</td>
<td>0.45</td>
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</table>

1. When ordering, specify tolerance, termination and packaging codes: 1008AF-103X JRC

Tolerance: J = 5%, K = 10%
Termination: R = RoHS matte Sn over Ni over Ag-Pt-glass frit.
Special order: T = RoHS Sn/Ag/Cu (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 lead and trailer ($25 charge).
D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).
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 2.5 MHz using Coilmart SMD-A fixture in an Aglient/HP 4290A impedance analyzer with Coilmart-provided correlation pieces.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at 2.5 MHz using an Agilent/HP 4291A with an Agilent/HP 4286A impedance analyzer.

5. SRF measured using an Agilent/HP 8753D network analyzer.


7. Isat measured using an Agilent/HP 4291A with an Agilent/HP 4286A impedance analyzer.

8. Irms measured using an Agilent/HP 8753D network analyzer.

Designers’ Kit C414 contains 10 of each 5% value

Core material: Ferrite
Terminations: RoHS matte Sn over Ni over Ag-Pt-glass frit. Other terminations available at additional cost.
Weight: 28 – 33 mg
Ambient temperature: –40°C to +85°C with Irms current.
Temperature coefficient of inductance: –125°C (ambient + temp rise).
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

Temperature Coefficient of Inductance (TCL): +100 to +350 ppm/°C
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)

Packaging:
- 2000 per 7" reel; 7500 per 13" reel
- Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 2.0 mm pocket depth


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Specification subject to change without notice. Please check web site for latest information.

• Available in 14 inductance values from 0.9 to 10 µH.

www.coilcraft.com
**1008AF Series (2520)**

**Typical L vs Frequency**

![Typical L vs Frequency Graph](image)

**Typical Q vs Frequency**

![Typical Q vs Frequency Graph](image)

**Typical L vs Current**

![Typical L vs Current Graph](image)

**Dimensions**

- **Height:** 0.110 ±0.002 inches / 2.79 ±0.051 mm
- **Length:** 0.115 ±0.002 inches / 2.92 ±0.051 mm
- **Width:** 0.080 ±0.002 inches / 1.91 ±0.051 mm

**Recommended Land Pattern**

- **Pick and place material:** 0.020 ±0.002 inches / 0.51 ±0.051 mm
- **Terminal wraparound:** approx. 0.015/0.38 both ends

**Note:** Height dimension is before optional solder application. For maximum height dimension including solder, add 0.006 inches / 0.152 mm.

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