



# Chip Inductors – 1008LS Series (2520)

These ferrite core surface mount inductors have lower DCR and higher current ratings than our 1008CS Series. They're available with inductance values from 1.2 to 10  $\mu$ H.

Coilcraft **Designer's Kit C136** contains samples of all 5% inductance tolerance parts. To order, contact Coilcraft or visit <http://order.coilcraft.com> to order on-line.

| Part number <sup>1</sup> | Inductance <sup>2</sup><br>( $\mu$ H) | Percent tolerance <sup>3</sup> | Q min <sup>4</sup> | SRF min <sup>5</sup><br>(MHz) | DCR max <sup>6</sup><br>(Ohms) | Irms <sup>7</sup><br>(mA) |
|--------------------------|---------------------------------------|--------------------------------|--------------------|-------------------------------|--------------------------------|---------------------------|
| 1008LS-122XJB_           | 1.2 @ 7.9MHz                          | <b>5</b>                       | 48 @ 50 MHz        | 210                           | 0.68                           | 650                       |
| 1008LS-152XJB_           | 1.5 @ 7.9MHz                          | <b>5</b>                       | 41 @ 50 MHz        | 190                           | 0.76                           | 630                       |
| 1008LS-182XJB_           | 1.8 @ 7.9MHz                          | <b>5</b>                       | 39 @ 50 MHz        | 170                           | 0.84                           | 600                       |
| 1008LS-222XJB_           | 2.2 @ 7.9MHz                          | <b>5</b>                       | 34 @ 50 MHz        | 150                           | 1.10                           | 520                       |
| 1008LS-272XJB_           | 2.7 @ 7.9MHz                          | <b>5</b>                       | 34 @ 50 MHz        | 135                           | 1.28                           | 490                       |
| 1008LS-332XJB_           | 3.3 @ 7.9MHz                          | <b>5</b>                       | 32 @ 50 MHz        | 120                           | 1.46                           | 450                       |
| 1008LS-392XJB_           | 3.9 @ 7.9MHz                          | <b>5</b>                       | 32 @ 7.9 MHz       | 105                           | 1.56                           | 420                       |
| 1008LS-472XJB_           | 4.7 @ 7.9MHz                          | <b>5</b>                       | 31 @ 7.9 MHz       | 90                            | 1.68                           | 400                       |
| 1008LS-562XJB_           | 5.6 @ 7.9MHz                          | <b>5</b>                       | 31 @ 7.9 MHz       | 80                            | 1.82                           | 380                       |
| 1008LS-682XJB_           | 6.8 @ 7.9MHz                          | <b>5</b>                       | 31 @ 7.9 MHz       | 70                            | 2.00                           | 360                       |
| 1008LS-822XJB_           | 8.2 @ 7.9MHz                          | <b>5</b>                       | 23 @ 7.9 MHz       | 65                            | 2.65                           | 330                       |
| 1008LS-103XJB_           | 10.0 @ 7.9MHz                         | <b>5</b>                       | 31 @ 7.9 MHz       | 60                            | 2.95                           | 300                       |

1. When ordering, please specify **packaging** code:

**1008LS-103XJB C**

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).

**B** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

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

3. Tolerances in bold are stocked for immediate shipment.

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

5. SRF measured using an Agilent/HP 8753D network analyzer with a Coilcraft SMD-D fixture.

6. DCR measured on a Cambridge Technology Micro-ohmmeter.

7. Average current for 15°C temperature rise from 25°C.

8. Operating temperature range –40°C to +85°C.

9. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

For part marking data see Color Coding section.

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
SEE INDEX **TEST FIXTURES**

**Coilcraft**<sup>®</sup>

Specifications subject to change without notice.  
Please check our website for latest information.

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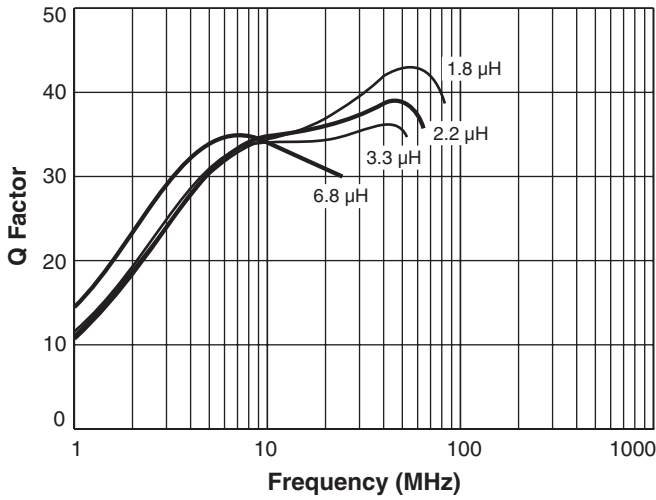
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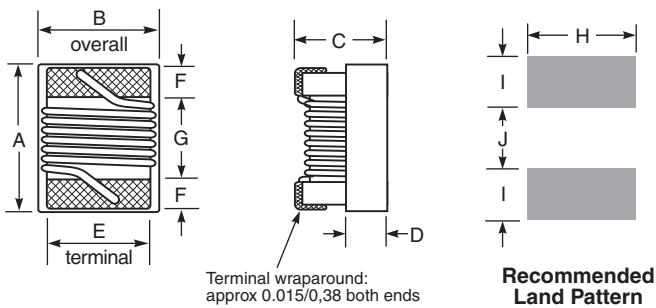
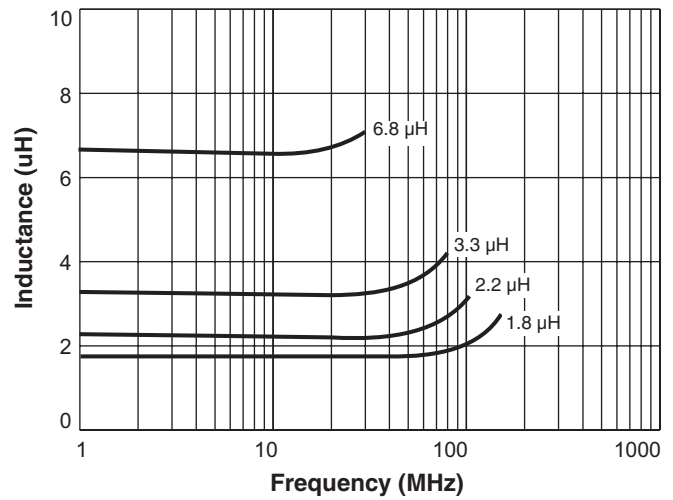
# 1008LS Series (2520)

## Typical Q vs Frequency



**S-Parameter files**  
ON OUR WEB SITE OR CD  
**SPICE models**  
ON OUR WEB SITE OR CD

## Typical L vs Frequency



| A max | B max | C max | D ref | E     | F     | G     | H     | I     | J     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.115 | 0.110 | 0.080 | 0.020 | 0.080 | 0.020 | 0.060 | 0.100 | 0.040 | 0.050 |
| 2,92  | 2,79  | 2,03  | 0,51  | 2,03  | 0,51  | 1,52  | 2,54  | 1,02  | 1,27  |

**Weight:** 38.3 – 41.0 mg  
**Terminations:** Platinum/palladium/silver  
**Tape and reel:** 2000/7" reel; 7500/13" reel 8 mm tape width  
 For packaging data see Tape and Reel Specifications section.



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 Please check our website for latest information. Document 103-2 Revised 12/14/04

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