

ATC 0402 WL SERIES WIRE WOUND CHIP INDUCTORS

Inductor Selection Guide

| Inductance (nH) | Tolerance Code | Q min. | SRF (MHz) min. | RDC (Ohms) max. | IDC (mA) max. | 900 MHz | | 1.7 GHz | |
|-----------------|----------------|--------|----------------|-----------------|---------------|---------|--------|---------|--------|
| | | | | | | L typ. | Q typ. | L typ. | Q typ. |
| 1.0 @ 250 (MHz) | K, J | 16 | >6000 | 0.045 | 1360 | 1.02 | 77 | 1.02 | 69 |
| 2.0 @ 250 (MHz) | K, J | 16 | >6000 | 0.070 | 1040 | 1.93 | 54 | 1.93 | 75 |
| 2.2 @ 250 (MHz) | K, J | 19 | >6000 | 0.070 | 960 | 2.19 | 59 | 2.23 | 100 |
| 3.3 @ 250 (MHz) | K, J | 19 | 6000 | 0.066 | 840 | 3.10 | 65 | 3.12 | 87 |
| 3.6 @ 250 (MHz) | K, J | 19 | 6000 | 0.066 | 840 | 3.56 | 45 | 3.62 | 71 |
| 3.9 @ 250 (MHz) | K, J | 19 | 5800 | 0.066 | 840 | 3.89 | 50 | 4.00 | 75 |
| 5.1 @ 250 (MHz) | K, J | 20 | 5800 | 0.083 | 800 | 5.15 | 56 | 5.25 | 82 |
| 5.6 @ 250 (MHz) | K, J | 20 | 5800 | 0.083 | 760 | 5.16 | 54 | 5.28 | 81 |
| 6.2 @ 250 (MHz) | K, J | 20 | 5800 | 0.083 | 760 | 6.16 | 52 | 6.37 | 76 |
| 7.5 @ 250 (MHz) | K, J | 22 | 5800 | 0.104 | 680 | 7.91 | 60 | 8.22 | 88 |
| 8.2 @ 250 (MHz) | K, J | 22 | 4400 | 0.104 | 680 | 8.50 | 57 | 8.85 | 84 |
| 9.0 @ 250 (MHz) | K, J | 22 | 4160 | 0.104 | 680 | 9.07 | 62 | 9.53 | 78 |
| 10 @ 250 (MHz) | K, J | 21 | 3900 | 0.195 | 480 | 9.8 | 50 | 10.1 | 67 |
| 11 @ 250 (MHz) | K, J | 24 | 3680 | 0.120 | 640 | 10.7 | 52 | 11.2 | 78 |
| 12 @ 250 (MHz) | K, J | 24 | 3600 | 0.120 | 640 | 11.9 | 53 | 12.7 | 71 |
| 15 @ 250 (MHz) | K, J | 24 | 3280 | 0.172 | 560 | 14.6 | 55 | 15.5 | 77 |
| 19 @ 250 (MHz) | K, J | 24 | 3040 | 0.202 | 480 | 19.1 | 50 | 21.1 | 67 |
| 23 @ 250 (MHz) | K, J | 24 | 2720 | 0.214 | 400 | 23.8 | 49 | 26.9 | 64 |
| 27 @ 250 (MHz) | K, J | 24 | 2480 | 0.298 | 400 | 28.7 | 49 | 33.5 | 63 |
| 36 @ 250 (MHz) | K, J | 24 | 2320 | 0.403 | 320 | 39.5 | 44 | 48.4 | 53 |
| 40 @ 250 (MHz) | K, J | 24 | 2240 | 0.438 | 320 | 39.0 | 44 | 47.4 | 33 |
| 47 @ 250 (MHz) | K, J | 20 | 2100 | 0.830 | 150 | 50.0 | 38 | 59.4 | 37 |
| 56 @ 250 (MHz) | K, J | 25 | 1760 | 0.970 | 100 | 57.4 | 49 | 72.4 | 40 |

ATC Part Number Code

0402 WL 100 K T

EIA Case Size
0402, 0603, 0805, 1008, 1206

Wire Wound Inductor
Inductance value in nH.
1st and 2nd digits are significant digits.
3rd digit is multiplier.
R is decimal point.

Packaging
T - Tape & Reel

Tolerance.
See table below.

| Inductance Tolerances | | |
|-----------------------|------|-------|
| Code | J | K |
| Tol. | ± 5% | ± 10% |

The above part number refers to an ATC 0402 WL wire wound chip inductor, 10 nH, K (±10%) tolerance, in tape and reel packaging. Tighter tolerances are available. Consult factory.

Mechanical Configurations

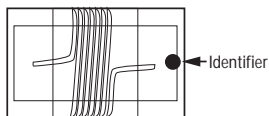
| A max. | B max. | C max. | D ref. | E | F | G | H | I | J |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| .050 (1.27) | .030 (0.76) | .024 (0.61) | 0.06 (0.15) | .020 (0.51) | .009 (0.23) | .022 (0.56) | .026 (0.66) | .019 (0.50) | .018 (0.46) |

Inches (mm)

Marking Code

0402- No mark due to size.

0603 and 0805 Series - Because of their small size, these parts are marked with a single dot. The inductance value represented by the dot is shown on the data sheet for each series.

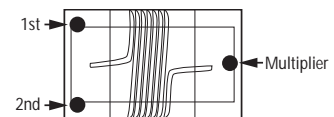


1008 and 1206 Series - These parts are marked with three color dots. The table below shows the significance of each color.

Dots 1 and 2 indicate the inductance in nanoHenries

Dot 3 is a multiplier showing the number of added zeroes

- | | |
|------------|------------|
| 0 = Black | 5 = Green |
| 1 = Brown | 6 = Blue |
| 2 = Red | 7 = Violet |
| 3 = Orange | 8 = Gray |
| 4 = Yellow | 9 = White |



Examples:

- Gray Red Black = 82 nH
- Brown Red Brown = 120 nH
- Yellow Violet Red = 4700 nH

Terminations

Terminations for all WL Series Inductor Case Sizes are **Lead-Free, RoHS Compliant**, Tin Plated over Nickel Barrier.

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