

Wire Wound Chip Inductor



LCWC Series

FEATURES

- Ceramic base provides high SRF
- Ultra-compact inductors provide high Q factors
- Low profile, high current are available
- Miniature SMD chip inductor for fully automated assembly
- Outstanding endurance from Pull-up force, mechanical shock and pressure
- Tighter tolerance down to $\pm 2\%$
- -40°C to $+125^{\circ}\text{C}$

APPLICATIONS

RF Products:

- Cellular Phone (CDMA/GSM/PHS)
- Cordless Phone (DECT/CT1CT2)
- Remote Control, Security System
- Wireless PDA
- Smart Phone
- WLL, Wireless LAN / Mouse / Keyboard / Earphone
- VCO, RF Module & Other Wireless Products
- Base Station, Repeater
- GPS Receiver



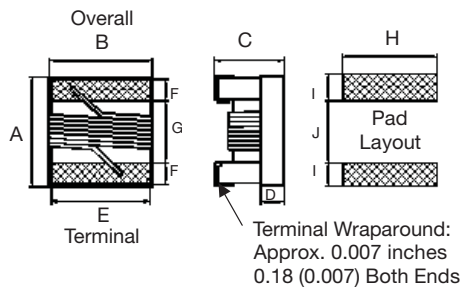
Broad Band Applications:

- CATV Filter, Tuner
- Cable Modem/ XDSL Tuner
- Set Top Box

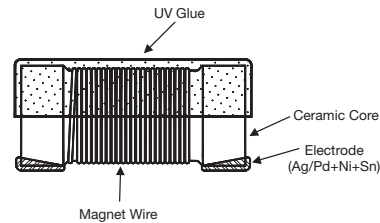
IT Applications:

- USB 2.0
- IEEE 1394

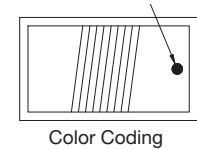
DIMENSIONS



CONSTRUCTION



COLOR CODING



STANDARD

| Type | Size (inch) | A Max. | B Max. | C Max. | D Ref. | E | F | G | H | I | J | Weight (g) (1000pcs) |
|------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------|
| 0402 | 0402 | 1.27 (0.050) | 0.76 (0.030) | 0.61 (0.024) | 0.15 (0.006) | 0.51 (0.020) | 0.23 (0.009) | 0.56 (0.022) | 0.66 (0.026) | 0.50 (0.020) | 0.46 (0.018) | 0.8 |
| 0603 | 0603 | 1.80 (0.071) | 1.12 (0.044) | 1.02 (0.040) | 0.38 (0.015) | 0.76 (0.030) | 0.33 (0.013) | 0.86 (0.034) | 1.02 (0.040) | 0.64 (0.025) | 0.64 (0.025) | 3.46 |
| 0805 | 0805 | 2.29 (0.090) | 1.73 (0.068) | 1.52 (0.060) | 0.51 (0.020) | 1.27 (0.050) | 0.44 (0.017) | 1.02 (0.040) | 1.78 (0.070) | 1.02 (0.040) | 0.76 (0.030) | 12.13 |
| 1008 | 1008 | 2.92 (0.115) | 2.79 (0.110) | 2.13 (0.084) | 0.65 (0.026) | 2.03 (0.080) | 0.51 (0.020) | 1.52 (0.060) | 2.54 (0.100) | 1.02 (0.040) | 1.27 (0.050) | 30.73 |
| 1206 | 1206 | 3.45 (0.136) | 1.90 (0.075) | 1.40 (0.055) | 0.50 (0.020) | 1.60 (0.063) | 0.50 (0.020) | 2.20 (0.087) | 1.93 (0.076) | 1.02 (0.040) | 1.78 (0.070) | 40 |

LOW PROFILE

| Type | Size (inch) | A Max. | B Max. | C Max. | D Ref. | E | F | G | H | I | J |
|------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0805 | 0805 | 2.29 (0.090) | 1.73 (0.068) | 1.03 (0.041) | 0.51 (0.020) | 1.27 (0.050) | 0.44 (0.017) | 1.02 (0.040) | 1.78 (0.070) | 1.02 (0.040) | 0.76 (0.030) |
| 1008 | 1008 | 2.92 (0.115) | 2.79 (0.110) | 1.40 (0.055) | 0.65 (0.026) | 2.03 (0.080) | 0.51 (0.020) | 1.52 (0.060) | 2.54 (0.100) | 1.02 (0.040) | 1.27 (0.050) |

HIGH CURRENT/HIGH Q

| Type | Size (inch) | A Max. | B Max. | C Max. | D Ref. | E | F | G | H | I | J |
|------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0603 | 0603 | 1.80 (0.071) | 1.12 (0.044) | 1.02 (0.040) | 0.38 (0.015) | 0.76 (0.030) | 0.33 (0.013) | 0.86 (0.034) | 1.02 (0.040) | 0.64 (0.025) | 0.64 (0.025) |
| 0805 | 0805 | 2.29 (0.090) | 1.73 (0.068) | 1.52 (0.060) | 0.51 (0.020) | 1.27 (0.050) | 0.44 (0.017) | 1.02 (0.040) | 1.78 (0.070) | 1.02 (0.040) | 0.76 (0.030) |
| 1008 | 1008 | 2.92 (0.115) | 2.79 (0.110) | 2.03 (0.080) | 0.65 (0.026) | 2.03 (0.080) | 0.51 (0.020) | 1.52 (0.060) | 2.54 (0.100) | 1.02 (0.040) | 1.27 (0.050) |



Wire Wound Chip Inductor



LCWC Series

HOW TO ORDER

| | | | | | | | | |
|--------------------|-------------------------|--------------------------------------|-----------------------------|--|--|----------------|--------------|-------------|
| LC | WC | 0402 | K | 101 | G | T | A | R |
| Family | Series | Size | Tolerance | Inductance | Style | Termination | Special | Packaging |
| LC = Chip Inductor | WC = Wire Wound Ceramic | 0402 0603 0805 1008 1206 | G = 2% J = 5% K = 10% | 3N9 = 3.9nH 39N = 39nH R39 = 390nH 3R9 = 3900nH 153 = 1500nH | G = Standard Q = High Q/ High Current R = Low Profile | T = Sn Plating | A = Standard | R = 7" Reel |

STANDARD ELECTRICAL SPECIFICATIONS

| 0402 | | | | | | | | | | |
|-----------------|--------------|---------------|---------------------|-----------|--------------|---------------|--------|----|--------|-----|
| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor Min. | SRF (GHz) | DCR (Ω) max. | IDC (mA) max. | 900MHz | | 1.7GHz | |
| | | | | | | | L | Q | L | Q |
| 1.0 | ±10% | 250 | 16 | 12.70 | 0.045 | 1360 | 1.02 | 77 | 1.02 | 69 |
| 1.9 | ±10% | 250 | 16 | 11.30 | 0.070 | 1040 | 1.72 | 68 | 1.74 | 82 |
| 2.0 | ±10% | 250 | 16 | 11.10 | 0.070 | 1040 | 1.93 | 54 | 1.93 | 75 |
| 2.2 | ±10% | 250 | 19 | 10.80 | 0.070 | 960 | 2.19 | 59 | 2.23 | 100 |
| 2.4 | ±10% | 250 | 15 | 10.50 | 0.070 | 790 | 2.24 | 51 | 2.27 | 68 |
| 2.7 | ±10% | 250 | 16 | 10.40 | 0.120 | 640 | 2.23 | 42 | 2.25 | 61 |
| 3.3 | ±10% | 250 | 19 | 7.00 | 0.066 | 840 | 3.10 | 65 | 3.12 | 87 |
| 3.6 | ±5, ±10% | 250 | 19 | 6.80 | 0.066 | 840 | 3.56 | 45 | 3.62 | 71 |
| 3.9 | ±5, ±10% | 250 | 19 | 5.80 | 0.066 | 840 | 3.89 | 50 | 4.00 | 75 |
| 4.3 | ±5, ±10% | 250 | 18 | 6.00 | 0.091 | 700 | 4.19 | 47 | 4.30 | 71 |
| 4.7 | ±5, ±10% | 250 | 18 | 4.70 | 0.130 | 640 | 4.55 | 48 | 4.68 | 68 |
| 5.1 | ±5, ±10% | 250 | 20 | 4.80 | 0.083 | 800 | 5.15 | 56 | 5.25 | 82 |
| 5.6 | ±5, ±10% | 250 | 20 | 4.80 | 0.083 | 760 | 5.16 | 54 | 5.28 | 81 |
| 6.2 | ±5, ±10% | 250 | 20 | 4.80 | 0.083 | 760 | 6.16 | 52 | 6.37 | 76 |
| 6.8 | ±5, ±10% | 250 | 20 | 4.80 | 0.083 | 680 | 6.56 | 63 | 6.93 | 78 |
| 7.5 | ±5, ±10% | 250 | 22 | 4.80 | 0.104 | 680 | 7.91 | 60 | 8.22 | 88 |
| 8.2 | ±5, ±10% | 250 | 22 | 4.40 | 0.104 | 680 | 8.50 | 57 | 8.85 | 84 |
| 8.7 | ±5, ±10% | 250 | 18 | 4.10 | 0.200 | 480 | 8.78 | 54 | 9.21 | 73 |
| 9.0 | ±5, ±10% | 250 | 22 | 4.16 | 0.104 | 680 | 9.07 | 62 | 9.53 | 78 |
| 9.5 | ±5, ±10% | 250 | 18 | 4.00 | 0.200 | 480 | 9.42 | 54 | 9.98 | 69 |
| 10 | ±2, ±5, ±10% | 250 | 21 | 3.90 | 0.195 | 480 | 9.80 | 50 | 10.10 | 67 |
| 11 | ±2, ±5, ±10% | 250 | 24 | 3.68 | 0.120 | 640 | 10.70 | 52 | 11.20 | 78 |
| 12 | ±2, ±5, ±10% | 250 | 24 | 3.60 | 0.120 | 640 | 11.90 | 53 | 12.70 | 71 |
| 13 | ±2, ±5, ±10% | 250 | 24 | 3.45 | 0.210 | 440 | 13.40 | 51 | 14.60 | 57 |
| 15 | ±2, ±5, ±10% | 250 | 24 | 3.28 | 0.172 | 560 | 14.60 | 55 | 15.50 | 77 |
| 16 | ±2, ±5, ±10% | 250 | 24 | 3.10 | 0.220 | 560 | 16.60 | 46 | 18.80 | 47 |
| 18 | ±2, ±5, ±10% | 250 | 25 | 3.10 | 0.230 | 420 | 18.30 | 57 | 20.30 | 62 |
| 19 | ±2, ±5, ±10% | 250 | 24 | 3.04 | 0.202 | 480 | 19.10 | 50 | 21.10 | 67 |
| 20 | ±2, ±5, ±10% | 250 | 25 | 3.00 | 0.250 | 420 | 20.70 | 52 | 23.70 | 53 |
| 22 | ±2, ±5, ±10% | 250 | 25 | 2.80 | 0.300 | 400 | 23.20 | 53 | 26.80 | 53 |
| 23 | ±2, ±5, ±10% | 250 | 24 | 2.72 | 0.300 | 400 | 23.80 | 49 | 26.90 | 64 |
| 24 | ±2, ±5, ±10% | 250 | 25 | 2.70 | 0.300 | 400 | 25.10 | 51 | 29.50 | 50 |
| 27 | ±2, ±5, ±10% | 250 | 24 | 2.48 | 0.300 | 400 | 28.70 | 49 | 33.50 | 63 |
| 30 | ±2, ±5, ±10% | 250 | 25 | 2.35 | 0.350 | 400 | 31.10 | 46 | 38.50 | 39 |
| 33 | ±2, ±5, ±10% | 250 | 24 | 2.35 | 0.350 | 400 | 34.90 | 31 | 41.70 | 32 |
| 36 | ±2, ±5, ±10% | 250 | 24 | 2.32 | 0.440 | 320 | 39.50 | 44 | 48.40 | 53 |
| 39 | ±2, ±5, ±10% | 250 | 25 | 2.10 | 0.550 | 200 | 41.70 | 47 | 50.20 | 45 |
| 40 | ±2, ±5, ±10% | 250 | 24 | 2.24 | 0.500 | 320 | 39.00 | 44 | 47.40 | 33 |
| 43 | ±2, ±5, ±10% | 250 | 25 | 2.03 | 0.810 | 100 | 45.80 | 46 | 61.60 | 34 |
| 47 | ±2, ±5, ±10% | 250 | 25 | 2.10 | 0.830 | 150 | 50.00 | 38 | 55.80 | 37 |
| 51 | ±2, ±5, ±10% | 250 | 25 | 1.75 | 0.820 | 100 | 50.40 | 47 | 59.40 | 37 |
| 56 | ±2, ±5, ±10% | 250 | 25 | 1.76 | 0.970 | 100 | 57.40 | 49 | 72.40 | 40 |
| 68 | ±2, ±5, ±10% | 250 | 22 | 1.62 | 1.120 | 100 | 69.60 | 45 | 83.40 | 38 |



Wire Wound Chip Inductor



LCWC Series

0603

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor Min. | SRF (GHz) | DCR (Ω) max. | IDC (mA) max. | 900MHz | | 1.7GHz | | Color Code |
|-----------------|--------------|---------------|---------------------|-----------|--------------|---------------|--------|----|--------|----|------------|
| | | | | | | | L | Q | L | Q | |
| 1.6 | ±5, ±10% | 250 | 24 | 12.5 | 0.030 | 700 | 1.53 | 35 | 1.58 | 55 | Blue |
| 1.8 | ±5, ±10% | 250 | 16 | 12.5 | 0.045 | 700 | 1.63 | 35 | 1.66 | 50 | Black |
| 2.2 | ±5, ±10% | 250 | 15 | 6.00 | 0.100 | 700 | 2.18 | 41 | 2.20 | 64 | White |
| 2.3 | ±5, ±10% | 250 | 16 | >4.00 | 0.140 | 700 | 2.32 | 32 | 2.35 | 40 | Yellow |
| 3.3 | ±2, ±5, ±10% | 250 | 22 | >6.00 | 0.080 | 700 | 3.35 | 47 | 3.40 | 65 | Red |
| 3.6 | ±2, ±5, ±10% | 250 | 22 | 5.80 | 0.063 | 700 | 3.53 | 49 | 3.58 | 65 | Violet |
| 3.9 | ±2, ±5, ±10% | 250 | 22 | >6.00 | 0.080 | 700 | 3.95 | 49 | 3.96 | 67 | Brown |
| 4.3 | ±2, ±5, ±10% | 250 | 22 | 5.80 | 0.063 | 700 | 4.32 | 49 | 4.43 | 67 | Orange |
| 4.5 | ±2, ±5, ±10% | 250 | 20 | 5.80 | 0.120 | 700 | 4.74 | 55 | 4.87 | 92 | Gray |
| 4.7 | ±2, ±5, ±10% | 250 | 25 | 5.80 | 0.120 | 700 | 4.65 | 53 | 4.80 | 67 | Violet |
| 5.1 | ±2, ±5, ±10% | 250 | 20 | 5.80 | 0.160 | 700 | 5.13 | 47 | 5.36 | 56 | Green |
| 5.6 | ±2, ±5, ±10% | 250 | 20 | 5.80 | 0.170 | 700 | 5.53 | 56 | 5.86 | 77 | Yellow |
| 6.2 | ±2, ±5, ±10% | 250 | 25 | 5.80 | 0.110 | 700 | 6.28 | 60 | 6.40 | 85 | Black |
| 6.3 | ±2, ±5, ±10% | 250 | 25 | 5.80 | 0.110 | 700 | 6.67 | 41 | 6.86 | 61 | Black |
| 6.8 | ±2, ±5, ±10% | 250 | 27 | 5.80 | 0.110 | 700 | 6.75 | 60 | 7.10 | 81 | Red |
| 7.5 | ±2, ±5, ±10% | 250 | 28 | 4.80 | 0.106 | 700 | 7.70 | 60 | 7.82 | 65 | Brown |
| 8.2 | ±2, ±5, ±10% | 250 | 27 | 4.80 | 0.110 | 700 | 8.25 | 64 | 8.40 | 81 | Green |
| 8.7 | ±2, ±5, ±10% | 250 | 28 | 4.80 | 0.109 | 700 | 8.86 | 62 | 9.32 | 58 | Yellow |
| 9.1 | ±2, ±5, ±10% | 250 | 35 | 4.80 | 0.130 | 700 | 9.20 | 70 | 9.70 | 80 | Black |
| 9.5 | ±2, ±5, ±10% | 250 | 28 | 5.40 | 0.135 | 700 | 9.70 | 59 | 9.92 | 61 | Blue |
| 10 | ±2, ±5, ±10% | 250 | 31 | 4.80 | 0.130 | 700 | 10.0 | 66 | 10.6 | 83 | Orange |
| 11 | ±2, ±5, ±10% | 250 | 31 | 4.00 | 0.086 | 700 | 11.3 | 53 | 12.1 | 56 | Gray |
| 12 | ±2, ±5, ±10% | 250 | 35 | 4.00 | 0.130 | 700 | 12.3 | 72 | 13.5 | 83 | Yellow |
| 15 | ±2, ±5, ±10% | 250 | 35 | 4.00 | 0.170 | 700 | 15.4 | 64 | 16.8 | 89 | Green |
| 16 | ±2, ±5, ±10% | 250 | 35 | 3.30 | 0.110 | 700 | 16.5 | 55 | 18.0 | 52 | White |
| 17 | ±2, ±5, ±10% | 250 | 35 | 3.20 | 0.170 | 700 | 17.6 | 56 | 19.4 | 44 | Red |
| 18 | ±2, ±5, ±10% | 250 | 35 | 3.10 | 0.170 | 700 | 18.7 | 70 | 21.4 | 69 | Blue |
| 20 | ±2, ±5, ±10% | 250 | 40 | 3.00 | 0.190 | 700 | 20.7 | 80 | 23.5 | 30 | Green |
| 22 | ±2, ±5, ±10% | 250 | 38 | 3.00 | 0.190 | 700 | 22.8 | 73 | 26.1 | 71 | Violet |
| 23 | ±2, ±5, ±10% | 250 | 38 | 2.85 | 0.190 | 700 | 24.1 | 71 | 28.0 | 71 | Orange |
| 24 | ±2, ±5, ±10% | 250 | 38 | 2.80 | 0.130 | 700 | 25.7 | 45 | 30.9 | 40 | Black |
| 27 | ±2, ±5, ±10% | 250 | 40 | 2.80 | 0.220 | 600 | 29.2 | 74 | 34.6 | 65 | Gray |
| 30 | ±2, ±5, ±10% | 250 | 40 | 2.80 | 0.150 | 600 | 31.4 | 47 | 39.8 | 28 | Brown |
| 33 | ±2, ±5, ±10% | 250 | 40 | 2.30 | 0.220 | 600 | 36.0 | 67 | 49.5 | 42 | White |
| 36 | ±2, ±5, ±10% | 250 | 37 | 2.30 | 0.250 | 600 | 39.1 | 47 | 48.9 | 24 | Red |
| 39 | ±2, ±5, ±10% | 250 | 40 | 2.20 | 0.250 | 600 | 42.7 | 60 | 60.2 | 40 | Black |
| 43 | ±2, ±5, ±10% | 200 | 38 | 2.00 | 0.280 | 600 | 46.9 | 44 | 60.3 | 21 | Orange |
| 47 | ±2, ±5, ±10% | 200 | 38 | 2.00 | 0.280 | 600 | 52.2 | 62 | 77.2 | 35 | Brown |
| 51 | ±2, ±5, ±10% | 200 | 38 | 1.90 | 0.280 | 600 | 55.5 | 69 | 82.2 | 34 | Blue |
| 56 | ±2, ±5, ±10% | 200 | 38 | 1.90 | 0.310 | 600 | 62.5 | 56 | 97.0 | 26 | Red |
| 62 | ±2, ±5, ±10% | 200 | 37 | 1.80 | 0.340 | 600 | 68.0 | 40 | 110 | 10 | Gray |
| 68 | ±2, ±5, ±10% | 200 | 37 | 1.70 | 0.340 | 600 | 80.5 | 54 | 168 | 21 | Orange |
| 72 | ±2, ±5, ±10% | 150 | 34 | 1.70 | 0.490 | 600 | 82.0 | 53 | 135 | 20 | Yellow |
| 82 | ±2, ±5, ±10% | 150 | 34 | 1.70 | 0.540 | 400 | 96.2 | 54 | 177 | 21 | Green |
| 91 | ±2, ±5, ±10% | 150 | 30 | 1.70 | 0.500 | 400 | 110.0 | 50 | 416.4 | 6 | Brown |
| 100 | ±2, ±5, ±10% | 150 | 34 | 1.40 | 0.580 | 400 | 124.0 | 49 | 319.5 | 13 | Blue |
| 110 | ±2, ±5, ±10% | 150 | 32 | 1.35 | 0.610 | 300 | 138.0 | 43 | 342.7 | 15 | Violet |
| 120 | ±2, ±5, ±10% | 150 | 32 | 1.30 | 0.650 | 300 | 166.0 | 39 | 529.3 | 8 | Gray |
| 130 | ±2, ±5, ±10% | 150 | 30 | 1.40 | 0.720 | 300 | 185.0 | 60 | - | - | White |
| 140 | ±2, ±5, ±10% | 100 | 28 | 1.30 | 0.870 | 280 | 190.0 | 80 | - | - | Blue |
| 150 | ±2, ±5, ±10% | 100 | 28 | 1.30 | 0.950 | 280 | 230.0 | 25 | - | - | White |
| 160 | ±2, ±5, ±10% | 100 | 25 | 1.30 | 1.400 | 280 | 215.0 | 20 | - | - | Yellow |
| 180 | ±2, ±5, ±10% | 100 | 25 | 1.25 | 1.400 | 250 | 305.0 | 22 | - | - | Black |
| 220 | ±2, ±5, ±10% | 100 | 25 | 1.20 | 1.600 | 250 | 377.0 | 21 | - | - | Brown |
| 260 | ±2, ±5, ±10% | 100 | 25 | 1.00 | 2.000 | 200 | 469.0 | 21 | - | - | Violet |
| 270 | ±2, ±5, ±10% | 100 | 25 | 0.90 | 2.100 | 200 | 523.0 | 19 | - | - | Red |
| 280 | ±2, ±5, ±10% | 100 | 25 | 1.00 | 2.400 | 100 | 524.0 | 18 | - | - | Green |
| 300 | ±2, ±5, ±10% | 100 | 25 | 0.75 | 2.500 | 150 | 539.7 | 21 | - | - | Orange |
| 330 | ±2, ±5, ±10% | 100 | 25 | 0.90 | 3.800 | 100 | 680.4 | 20 | - | - | Blue |
| 390 | ±2, ±5, ±10% | 100 | 25 | 0.90 | 4.350 | 100 | 734.5 | 29 | - | - | Yellow |
| 470 | ±2, ±5, ±10% | 100 | 23 | 0.60 | 3.600 | 80 | - | - | - | - | White |



Wire Wound Chip Inductor



LCWC Series

0805

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 2.7 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1500MHz | 7.900 | 0.06 | 800 | Brown |
| 2.8 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1500MHz | 7.900 | 0.06 | 800 | Gray |
| 3.0 | $\pm 5, \pm 10\%$ | 250 | 65 @ 1500MHz | 7.900 | 0.06 | 800 | White |
| 3.3 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1500MHz | 6.000 | 0.08 | 600 | Black |
| 5.6 | $\pm 5, \pm 10\%$ | 250 | 65 @ 1000MHz | 5.500 | 0.08 | 600 | Orange |
| 6.2 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 5.500 | 0.11 | 600 | Green |
| 6.8 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 5.500 | 0.11 | 600 | Brown |
| 7.5 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 4.500 | 0.14 | 600 | Green |
| 8.2 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 4.700 | 0.12 | 600 | Red |
| 8.7 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 4.000 | 0.21 | 400 | White |
| 10 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 60 @ 500MHz | 4.200 | 0.10 | 600 | Blue |
| 12 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 4.000 | 0.15 | 600 | Orange |
| 15 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 3.400 | 0.17 | 600 | Yellow |
| 18 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 3.300 | 0.20 | 600 | Green |
| 22 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 55 @ 500MHz | 2.600 | 0.22 | 500 | Blue |
| 24 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.000 | 0.22 | 500 | Gray |
| 27 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 55 @ 500MHz | 2.500 | 0.25 | 500 | Violet |
| 33 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 60 @ 500MHz | 2.050 | 0.27 | 500 | Gray |
| 36 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 55 @ 500MHz | 1.700 | 0.27 | 500 | Orange |
| 39 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 60 @ 500MHz | 2.000 | 0.29 | 500 | White |
| 43 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 60 @ 500MHz | 1.650 | 0.34 | 500 | Yellow |
| 47 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 60 @ 500MHz | 1.650 | 0.31 | 500 | Black |
| 56 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 60 @ 500MHz | 1.550 | 0.34 | 500 | Brown |
| 68 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 60 @ 500MHz | 1.450 | 0.38 | 500 | Red |
| 72 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 65 @ 500MHz | 1.400 | 0.40 | 500 | Green |
| 82 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 65 @ 500MHz | 1.300 | 0.42 | 400 | Orange |
| 91 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 65 @ 500MHz | 1.200 | 0.48 | 400 | Black |
| 100 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 65 @ 500MHz | 1.200 | 0.46 | 400 | Yellow |
| 110 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 50 @ 250MHz | 1.000 | 0.48 | 400 | Brown |
| 120 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 50 @ 250MHz | 1.100 | 0.51 | 400 | Green |
| 150 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 250MHz | 0.920 | 0.56 | 400 | Blue |
| 180 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 250MHz | 0.870 | 0.64 | 400 | Violet |
| 200 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 250MHz | 0.860 | 0.66 | 400 | Orange |
| 220 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 250MHz | 0.850 | 0.70 | 400 | Gray |
| 240 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 44 @ 250MHz | 0.690 | 1.00 | 350 | Red |
| 250 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 250MHz | 0.680 | 1.00 | 350 | Green |
| 270 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 48 @ 250MHz | 0.650 | 1.00 | 350 | White |
| 300 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 48 @ 250MHz | 0.620 | 1.20 | 330 | Yellow |
| 330 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 48 @ 250MHz | 0.600 | 1.40 | 310 | Black |
| 360 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 48 @ 250MHz | 0.580 | 1.45 | 300 | Green |
| 390 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 48 @ 250MHz | 0.560 | 1.50 | 290 | Brown |
| 430 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 33 @ 100MHz | 0.430 | 1.70 | 230 | Blue |
| 470 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 33 @ 100MHz | 0.375 | 1.70 | 250 | Red |
| 560 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.340 | 1.90 | 230 | Orange |
| 600 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.260 | 1.60 | 450 | White |
| 620 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.220 | 2.20 | 210 | Yellow |
| 680 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.200 | 2.20 | 190 | Green |
| 750 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.200 | 2.30 | 180 | Blue |
| 820 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 23 @ 50MHz | 0.200 | 2.35 | 180 | Violet |
| 1000 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 20 @ 50MHz | 0.100 | 2.50 | 170 | Gray |
| 1200 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 18 @ 25MHz | 0.100 | 2.50 | 170 | White |
| 1500 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 16 @ 25MHz | 0.100 | 2.50 | 170 | Black |
| 1800 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 16 @ 7.9MHz | 0.080 | 2.50 | 170 | Brown |
| 2200 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 16 @ 7.9MHz | 0.060 | 2.70 | 160 | Red |
| 2700 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 16 @ 7.9MHz | 0.050 | 3.10 | 150 | Orange |
| 3300 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 15 @ 7.9MHz | 0.040 | 4.40 | 90 | Blue |
| 4700 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 15 @ 7.9MHz | 0.040 | 6.40 | 90 | Green |

Wire Wound Chip Inductor



LCWC Series

1008

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| *5.6 | $\pm 5, \pm 10\%$ | 50 | 50 @ 1500MHz | 4.000 | 0.15 | 1000 | Black |
| *10 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 500MHz | 4.100 | 0.08 | 1000 | Brown |
| *12 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 500MHz | 3.300 | 0.09 | 1000 | Red |
| *15 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 500MHz | 2.500 | 0.11 | 1000 | Orange |
| *18 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 2.400 | 0.12 | 1000 | Yellow |
| *22 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 350MHz | 2.400 | 0.12 | 1000 | Green |
| 24 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 350MHz | 1.900 | 0.13 | 1000 | Blue |
| *27 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 350MHz | 1.600 | 0.13 | 1000 | Violet |
| *33 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 350MHz | 1.600 | 0.14 | 1000 | Gray |
| 36 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 350MHz | 1.600 | 0.15 | 1000 | Orange |
| *39 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 350MHz | 1.500 | 0.15 | 1000 | White |
| *47 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 65 @ 350MHz | 1.500 | 0.16 | 1000 | Black |
| *56 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 65 @ 350MHz | 1.300 | 0.18 | 1000 | Brown |
| *62 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 65 @ 350MHz | 1.250 | 0.20 | 1000 | Blue |
| *68 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 65 @ 350MHz | 1.300 | 0.20 | 1000 | Red |
| 75 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 350MHz | 1.100 | 0.21 | 1000 | White |
| *82 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 350MHz | 1.000 | 0.22 | 1000 | Orange |
| 91 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 1.000 | 0.45 | 1000 | White |
| *100 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 60 @ 350MHz | 1.000 | 0.56 | 650 | Yellow |
| *120 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 60 @ 350MHz | 0.950 | 0.63 | 650 | Green |
| *150 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.850 | 0.70 | 800 | Blue |
| *180 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.750 | 0.77 | 620 | Violet |
| *220 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.700 | 0.84 | 500 | Gray |
| *240 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.650 | 0.88 | 500 | White |
| *270 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.600 | 0.91 | 690 | Black |
| *300 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.585 | 1.00 | 450 | Brown |
| *330 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.570 | 1.05 | 450 | Red |
| *360 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.530 | 1.10 | 470 | Orange |
| *390 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.500 | 1.12 | 630 | Yellow |
| *430 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.480 | 1.15 | 470 | Green |
| *470 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.450 | 1.19 | 470 | Blue |
| *560 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.415 | 1.33 | 580 | Violet |
| *620 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.375 | 1.40 | 300 | Gray |
| *680 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.375 | 1.47 | 540 | White |
| *750 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.360 | 1.54 | 360 | Black |
| *820 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 45 @ 100MHz | 0.350 | 1.61 | 400 | Brown |
| *910 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 35 @ 50MHz | 0.320 | 1.68 | 380 | Red |
| *1000 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 35 @ 50MHz | 0.290 | 1.75 | 370 | Orange |
| *1200 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 35 @ 50MHz | 0.250 | 2.00 | 310 | Yellow |
| *1500 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 28 @ 50MHz | 0.200 | 2.30 | 330 | Green |
| *1800 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 28 @ 50MHz | 0.160 | 2.60 | 300 | Blue |
| *2200 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 28 @ 50MHz | 0.160 | 2.80 | 280 | Violet |
| *2700 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 22 @ 25MHz | 0.140 | 3.20 | 290 | Gray |
| *3300 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 22 @ 25MHz | 0.110 | 3.40 | 290 | White |
| *3900 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 18 @ 25MHz | 0.100 | 3.60 | 260 | Black |
| *4700 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 18 @ 25MHz | 0.090 | 4.00 | 260 | Brown |
| 5600 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 16 @ 7.96MHz | 0.020 | 4.00 | 240 | Red |
| 6800 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 15 @ 7.96MHz | 0.040 | 4.90 | 200 | Orange |
| 8200 | $\pm 2, \pm 5, \pm 10\%$ | 7.9 | 15 @ 7.96MHz | 0.025 | 6.00 | 170 | Yellow |
| 10000 | $\pm 2, \pm 5, \pm 10\%$ | 2.52 | 15 @ 7.96MHz | 0.020 | 9.00 | 150 | Green |
| 12000 | $\pm 2, \pm 5, \pm 10\%$ | 2.52 | 15 @ 7.96MHz | 0.018 | 10.5 | 130 | Blue |
| 15000 | $\pm 2, \pm 5, \pm 10\%$ | 2.52 | 15 @ 7.96MHz | 0.015 | 11.5 | 120 | Violet |

* Test Method/Instrument: Network/Spectrum Analyzer

Wire Wound Chip Inductor



LCWC Series

1206

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 6.8 | $\pm 5, \pm 10\%$ | 100 | 30 @ 300MHz | 5.50 | 0.07 | 1000 | Brown |
| 10 | $\pm 5, \pm 10\%$ | 100 | 40 @ 300MHz | 4.00 | 0.08 | 1000 | Red |
| 12 | $\pm 5, \pm 10\%$ | 100 | 40 @ 300MHz | 3.20 | 0.08 | 1000 | Orange |
| 15 | $\pm 5, \pm 10\%$ | 100 | 40 @ 300MHz | 3.20 | 0.10 | 1000 | Yellow |
| 18 | $\pm 5, \pm 10\%$ | 100 | 50 @ 300MHz | 2.80 | 0.10 | 1000 | Green |
| 22 | $\pm 5, \pm 10\%$ | 100 | 50 @ 300MHz | 2.20 | 0.10 | 1000 | Blue |
| 24 | $\pm 5, \pm 10\%$ | 100 | 50 @ 300MHz | 2.00 | 0.10 | 1000 | Red |
| 27 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 50 @ 300MHz | 1.80 | 0.11 | 1000 | Violet |
| 33 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.80 | 0.11 | 1000 | Gray |
| 39 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.80 | 0.12 | 1000 | White |
| 47 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.50 | 0.13 | 1000 | Black |
| 56 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.45 | 0.14 | 1000 | Brown |
| 62 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.20 | 0.20 | 1000 | Violet |
| 68 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.20 | 0.26 | 950 | Red |
| 82 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.20 | 0.21 | 920 | Orange |
| 91 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.10 | 0.24 | 900 | White |
| 100 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 1.10 | 0.26 | 850 | Yellow |
| 120 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 55 @ 300MHz | 0.75 | 0.26 | 800 | Green |
| 150 | $\pm 2, \pm 5, \pm 10\%$ | 100 | 60 @ 300MHz | 0.95 | 0.31 | 750 | Blue |
| 180 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 300MHz | 0.90 | 0.43 | 700 | Violet |
| 220 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 300MHz | 0.76 | 0.50 | 670 | Gray |
| 270 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 55 @ 300MHz | 0.74 | 0.56 | 630 | White |
| 300 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 150MHz | 0.68 | 0.60 | 600 | Green |
| 330 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 45 @ 150MHz | 0.65 | 0.62 | 590 | Black |
| 360 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 45 @ 150MHz | 0.60 | 0.65 | 550 | Blue |
| 390 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 45 @ 150MHz | 0.60 | 0.75 | 530 | Brown |
| 470 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 45 @ 150MHz | 0.55 | 1.30 | 490 | Red |
| 560 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.47 | 1.34 | 460 | Orange |
| 620 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.47 | 1.58 | 460 | Gray |
| 680 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.45 | 1.58 | 430 | Yellow |
| 750 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.44 | 2.25 | 320 | White |
| 820 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.42 | 1.82 | 400 | Green |
| 910 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.41 | 2.95 | 310 | Green |
| 1000 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.40 | 2.80 | 320 | Blue |
| 1200 | $\pm 2, \pm 5, \pm 10\%$ | 35 | 45 @ 150MHz | 0.38 | 3.20 | 300 | Violet |

Wire Wound Chip Inductor



LCWC Series

LOW PROFILE ELECTRICAL SPECIFICATIONS

0805

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 1.8 | $\pm 5\%$ | 250 | 55 @ 1500MHz | 9.40 | 0.03 | 800 | Black |
| 3.9 | $\pm 5, \pm 10\%$ | 250 | 60 @ 1000MHz | 6.10 | 0.06 | 800 | Brown |
| 4.7 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 5.50 | 0.06 | 800 | Red |
| 6.8 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 5.50 | 0.08 | 800 | Orange |
| 8.2 | $\pm 5, \pm 10\%$ | 250 | 50 @ 1000MHz | 4.80 | 0.08 | 800 | Yellow |
| 10 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 55 @ 750MHz | 3.30 | 0.08 | 800 | Green |
| 12 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 55 @ 750MHz | 3.80 | 0.10 | 800 | Blue |
| 15 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.95 | 0.10 | 800 | Violet |
| 18 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 3.10 | 0.13 | 800 | Gray |
| 22 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.90 | 0.15 | 800 | Whit |
| 27 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.45 | 0.23 | 600 | Black |
| 33 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.35 | 0.28 | 600 | Brown |
| 39 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 50 @ 500MHz | 2.20 | 0.33 | 600 | Red |
| 47 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 50 @ 500MHz | 2.00 | 0.39 | 600 | Orange |
| 56 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 50 @ 500MHz | 1.85 | 0.39 | 500 | Yellow |
| 68 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 50 @ 500MHz | 1.50 | 0.40 | 500 | Green |
| 82 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 50 @ 500MHz | 1.50 | 0.44 | 500 | Blue |
| 100 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 50 @ 500MHz | 1.20 | 0.64 | 400 | Violet |
| 120 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 40 @ 250MHz | 1.15 | 0.68 | 300 | Gray |
| 150 | $\pm 2, \pm 5, \pm 10\%$ | 150 | 40 @ 250MHz | 1.05 | 0.80 | 300 | Whit |
| 1000 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 16 @ 50MHz | 0.08 | 3.50 | 170 | Black |

1008

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 3.3 | $\pm 5, \pm 10\%$ | 50 | 42 @ 1500MHz | 6.00 | 0.03 | 1000 | White |
| 4.2 | $\pm 5, \pm 10\%$ | 50 | 42 @ 1500MHz | 6.00 | 0.15 | 1000 | Black |
| 6.8 | $\pm 5, \pm 10\%$ | 50 | 50 @ 1500MHz | 5.40 | 0.17 | 1000 | Brown |
| 8.2 | $\pm 5, \pm 10\%$ | 50 | 50 @ 1500MHz | 5.00 | 0.22 | 1000 | Red |
| 15 | $\pm 5, \pm 10\%$ | 50 | 57 @ 500MHz | 3.00 | 0.22 | 1000 | Orange |
| 18 | $\pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 2.40 | 0.12 | 1000 | Gray |
| 20 | $\pm 5, \pm 10\%$ | 50 | 72 @ 500MHz | 2.40 | 0.33 | 1000 | Yellow |
| 27 | $\pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 1.60 | 0.13 | 850 | Green |
| 30 | $\pm 5, \pm 10\%$ | 50 | 69 @ 500MHz | 2.40 | 0.38 | 600 | Blue |
| 40 | $\pm 5, \pm 10\%$ | 50 | 67 @ 500MHz | 2.00 | 0.43 | 600 | Violet |
| 50 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 72 @ 500MHz | 1.90 | 0.48 | 600 | Gray |
| 60 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 500MHz | 1.80 | 0.52 | 600 | White |
| 70 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 68 @ 500MHz | 1.70 | 0.55 | 510 | Black |
| 80 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 500MHz | 1.40 | 0.56 | 510 | Brown |
| 180 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 0.90 | 0.40 | 450 | Blue |
| 560 | $\pm 2, \pm 5, \pm 10\%$ | 25 | 40 @ 100MHz | 0.415 | 1.33 | 400 | Red |

Wire Wound Chip Inductor



LCWC Series

HIGH CURRENT ELECTRICAL SPECIFICATIONS

0603

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 1.6 | $\pm 5, \pm 10\%$ | 250 | 24 | 12.50 | 0.030 | 2400 | Black |
| 3.6 | $\pm 5, \pm 10\%$ | 250 | 24 | 5.90 | 0.048 | 2300 | Brown |
| 3.9 | $\pm 5, \pm 10\%$ | 250 | 25 | 5.90 | 0.054 | 2200 | Red |
| 6.8 | $\pm 5, \pm 10\%$ | 250 | 35 | 5.80 | 0.054 | 2100 | Orange |
| 7.5 | $\pm 5, \pm 10\%$ | 250 | 38 | 3.70 | 0.059 | 2100 | Yellow |
| 8.2 | $\pm 5, \pm 10\%$ | 250 | 38 | 3.70 | 0.060 | 2000 | White |
| 10 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 38 | 3.70 | 0.071 | 2000 | Green |
| 12 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 38 | 3.00 | 0.075 | 2000 | Blue |
| 15 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 38 | 2.80 | 0.080 | 1900 | Violet |
| 18 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 40 | 2.80 | 0.099 | 1900 | Gray |
| 22 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 42 | 2.40 | 0.099 | 1800 | White |
| 24 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 42 | 2.40 | 0.105 | 1800 | Black |

HIGH Q ELECTRICAL SPECIFICATIONS

0805

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 2.5 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1500MHz | 6.00 | 0.020 | 1600 | Black |
| 5.6 | $\pm 5, \pm 10\%$ | 250 | 98 @ 1500MHz | 6.00 | 0.035 | 1600 | Brown |
| 6.2 | $\pm 5, \pm 10\%$ | 250 | 88 @ 1000MHz | 4.75 | 0.035 | 1600 | Red |
| 6.8 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1000MHz | 4.40 | 0.035 | 1600 | White |
| 8.2 | $\pm 5, \pm 10\%$ | 250 | 75 @ 1000MHz | 3.00 | 0.075 | 1000 | Gray |
| 10 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1000MHz | 3.00 | 0.060 | 1600 | Black |
| 12 | $\pm 5, \pm 10\%$ | 250 | 80 @ 1000MHz | 3.00 | 0.045 | 1600 | Orange |
| 15 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 80 @ 1000MHz | 2.80 | 0.100 | 1200 | Black |
| 16 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 72 @ 500MHz | 2.95 | 0.060 | 1500 | Yellow |
| 18 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 75 @ 500MHz | 2.55 | 0.060 | 1400 | Green |
| 20 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 70 @ 500MHz | 2.05 | 0.055 | 1400 | Blue |
| 22 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 80 @ 500MHz | 2.00 | 0.100 | 1200 | Black |
| 27 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 75 @ 500MHz | 2.00 | 0.070 | 1300 | Violet |
| 30 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 65 @ 500MHz | 1.95 | 0.095 | 1200 | Gray |
| 39 | $\pm 2, \pm 5, \pm 10\%$ | 250 | 65 @ 500MHz | 1.60 | 0.110 | 1100 | White |
| 48 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 65 @ 500MHz | 1.40 | 0.095 | 1200 | Black |
| 51 | $\pm 2, \pm 5, \pm 10\%$ | 200 | 65 @ 500MHz | 1.40 | 0.120 | 1000 | Brown |

1008

| Inductance (nH) | Tolerance | L Freq. (MHz) | Quality Factor min. | SRF (GHz) min. | DCR (Ω) max. | IDC (mA) max. | Color Code |
|-----------------|--------------------------|---------------|---------------------|----------------|-----------------------|---------------|------------|
| 3.0 | $\pm 5, \pm 10\%$ | 50 | 70 @ 1500MHz | 6.00 | 0.04 | 1600 | Black |
| 3.9 | $\pm 5, \pm 10\%$ | 50 | 75 @ 1500MHz | 6.00 | 0.05 | 1600 | White |
| 4.1 | $\pm 5, \pm 10\%$ | 50 | 75 @ 1500MHz | 6.00 | 0.05 | 1600 | Brown |
| 7.8 | $\pm 5, \pm 10\%$ | 50 | 75 @ 500MHz | 3.80 | 0.05 | 1600 | Red |
| 10 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 60 @ 500MHz | 3.60 | 0.06 | 1600 | Orange |
| 12 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 70 @ 500MHz | 2.80 | 0.06 | 1500 | Yellow |
| 18 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 62 @ 350MHz | 2.70 | 0.07 | 1400 | Green |
| 22 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 62 @ 350MHz | 2.05 | 0.07 | 1400 | Blue |
| 33 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 350MHz | 1.70 | 0.09 | 1300 | Violet |
| 39 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 350MHz | 1.30 | 0.09 | 1300 | Gray |
| 47 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 350MHz | 1.45 | 0.12 | 1200 | White |
| 56 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 75 @ 350MHz | 1.23 | 0.12 | 1200 | Black |
| 68 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 80 @ 350MHz | 1.15 | 0.13 | 1100 | Brown |
| 82 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 80 @ 350MHz | 1.06 | 0.16 | 1100 | Red |
| 100 | $\pm 2, \pm 5, \pm 10\%$ | 50 | 50 @ 350MHz | 0.82 | 0.16 | 1000 | Orange |

Wire Wound Chip Inductor



LCWC Series

ENVIRONMENTAL CHARACTERISTICS

MECHANICAL PERFORMANCE TEST

| Items | Requirement | Test Methods |
|-----------------------|--|--|
| Inductance | Refer to standard electrical characteristic spec. | HP4286 |
| Q | | HP4286 |
| SRF | | HP4287 |
| DC Resistance RDC | | Micro-Ohm meter (Gom-801G) |
| Rated Current IDC | | Applied the current to coils, The inductance change should be less than 10% to initial value |
| Over Load | Inductors shall have no evidence of electrical and mechanical damage | Applied 2 times of rated allowed DC current to inductor for a period of 5 minutes |
| Withstanding Voltage | Inductors shall be no evidence of electrical and mechanical damage. | AC voltage of 500 VAC applied between inductors terminal and case for 1 min. |
| Insulation Resistance | 1000M ohm min. | 100 VDC applied between inductor terminal and case and case |

MECHANICAL PERFORMANCE TEST

| Items | Requirement | Test Methods |
|--------------------------------|--|--|
| Vibration | Appearance: No damage L change: within $\pm 5\%$ Q change: within $\pm 10\%$ | Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1 min. Amplitude: 1.5 mm Time: 2 hrs for each axis (X, Y & Z), total 6 hrs |
| Resistance to Soldering Heat | | Solder Temperature: $260 \pm 50^\circ\text{C}$ Immersion Time: 10 ± 2 seconds |
| Component Adhesion (Push Test) | 1 lbs. For 0402 2 lbs. For 0603 3 lbs. For the rest | The device should be soldered (260 ± 5 for 10 seconds) to a tinned copper subs rate. A dynamiter force gauge should be applied to the side of the component. The device must with stand a minimum force of 2 or 4 pounds without a failure of adhesion on termination |
| Drop | No damage | Dropping chip by each side and each corner. Drop 10 times in total Drop height: 100 cm Drop weight: 125 g |
| Solderability | 90% covered with solder | Inductor shall be dipped in a melted solder bath at 245 ± 5 for 3 seconds |
| Resistance to Solvent | No damage on appearance and marking | MIL-STD202F, Method 215D |

CLIMATIC TEST

| Items | Requirement | Test Methods | | | | | | | | | | | | | | | |
|----------------------------|---|--|-------------|----------------------------------|-------------|---|-------------|----|---|------------|----|---|-------------|----|---|------------|----|
| Temperature Characteristic | Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 20\%$ | $-40 \sim +125^\circ\text{C}$ | | | | | | | | | | | | | | | |
| Humidity | | Temperature: $40 \pm 2^\circ\text{C}$ Relative Humidity: 90 ~ 95% Time: 96 ± 2 hrs Measured after exposure in the room condition for 2 hrs | | | | | | | | | | | | | | | |
| Low Temperature Storage | | Temperature: $-40 \pm 2^\circ\text{C}$ Time: 96 ± 2 hrs Inductors are tested after 1 hour at room temperature | | | | | | | | | | | | | | | |
| Thermal Shock | | One cycle: <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>Step</th> <th>Temperature ($^\circ\text{C}$)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 ± 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 ± 2</td> <td>15</td> </tr> <tr> <td>3</td> <td>125 ± 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 ± 2</td> <td>15</td> </tr> </tbody> </table> | Step | Temperature ($^\circ\text{C}$) | Time (min.) | 1 | -25 ± 3 | 30 | 2 | 25 ± 2 | 15 | 3 | 125 ± 3 | 30 | 4 | 25 ± 2 | 15 |
| Step | | Temperature ($^\circ\text{C}$) | Time (min.) | | | | | | | | | | | | | | |
| 1 | | -25 ± 3 | 30 | | | | | | | | | | | | | | |
| 2 | | 25 ± 2 | 15 | | | | | | | | | | | | | | |
| 3 | 125 ± 3 | 30 | | | | | | | | | | | | | | | |
| 4 | 25 ± 2 | 15 | | | | | | | | | | | | | | | |
| High Temperature Storage | Temperature: $125 \pm 2^\circ\text{C}$ Time: 96 ± 2 hrs Measured after exposure in the room condition for 1 hour | | | | | | | | | | | | | | | | |
| High Temperature Load Life | Temperature: $85 \pm 2^\circ\text{C}$ Time: 1000 ± 12 hrs Load: Allowed DC current | | | | | | | | | | | | | | | | |
| Damp Heat with Load | Temperature: $40 \pm 2^\circ\text{C}$ Relative Humidity: 90 ~ 95% Time: 1000 ± 12 hrs Load: Allowed DC current | | | | | | | | | | | | | | | | |

Wire Wound Chip Inductor



LCWC Series

REEL DIMENSIONS AND PACKAGING QUANTITY



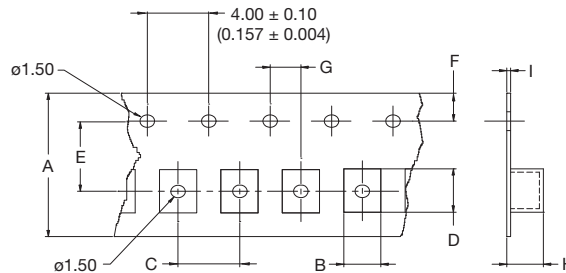
PAPER TAPE SPECIFICATION AND PACKAGING QUANTITY



mm (inches)

| Type | A | B | H | F | P | P ₀ | P ₁ | W | Reel (EA) |
|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
| LCWC0402 | 0.72 (0.028) | 1.19 (0.047) | 0.60 (0.024) | 3.50 (0.138) | 4.00 (0.157) | 4.00 (0.147) | 2.00 (0.079) | 8.00 (0.315) | 4,000 |
| LCWC0603 | 1.35 (0.053) | 1.95 (0.077) | 0.95 (0.037) | 3.50 (0.138) | 4.00 (0.157) | 4.00 (0.147) | 2.00 (0.079) | 8.00 (0.315) | 4,000 |

EMBOSSED PLASTIC PAPER TAPE SPECIFICATION AND PACKAGING QUANTITY



mm (inches)

| Type | A | B | C | D | E | F | G | H | I | Reel (EA) |
|--------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------|
| LCWC0805 | 8.00 ± 0.20 (0.315 ± 0.008) | 1.85 ± 0.10 (0.073 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.30 ± 0.10 (0.091 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.45 ± 0.05 (0.057 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC0805 (R) | 8.00 ± 0.20 (0.315 ± 0.008) | 1.80 ± 0.10 (0.071 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.30 ± 0.10 (0.091 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 0.90 ± 0.05 (0.035 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC0805 (Q) | 8.00 ± 0.20 (0.315 ± 0.008) | 1.85 ± 0.10 (0.073 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.30 ± 0.10 (0.091 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.45 ± 0.05 (0.057 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC1206 | 8.00 ± 0.20 (0.315 ± 0.008) | 1.95 ± 0.10 (0.077 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 3.50 ± 0.10 (0.138 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.05 (0.059 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC1008 | 8.00 ± 0.20 (0.315 ± 0.008) | 2.70 ± 0.10 (0.106 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.80 ± 0.10 (0.110 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 2.00 ± 0.05 (0.079 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC1008 (R) | 8.00 ± 0.20 (0.315 ± 0.008) | 2.70 ± 0.10 (0.106 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.80 ± 0.10 (0.110 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 1.50 ± 0.05 (0.059 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |
| LCWC1008 (Q) | 8.00 ± 0.20 (0.315 ± 0.008) | 2.70 ± 0.10 (0.106 ± 0.073) | 4.00 ± 0.10 (0.157 ± 0.073) | 2.80 ± 0.10 (0.110 ± 0.073) | 3.50 ± 0.05 (0.138 ± 0.002) | 1.75 ± 0.10 (0.069 ± 0.073) | 2.00 ± 0.05 (0.079 ± 0.002) | 2.00 ± 0.05 (0.079 ± 0.002) | 0.23 ± 0.05 (0.009 ± 0.002) | 2,000 |



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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