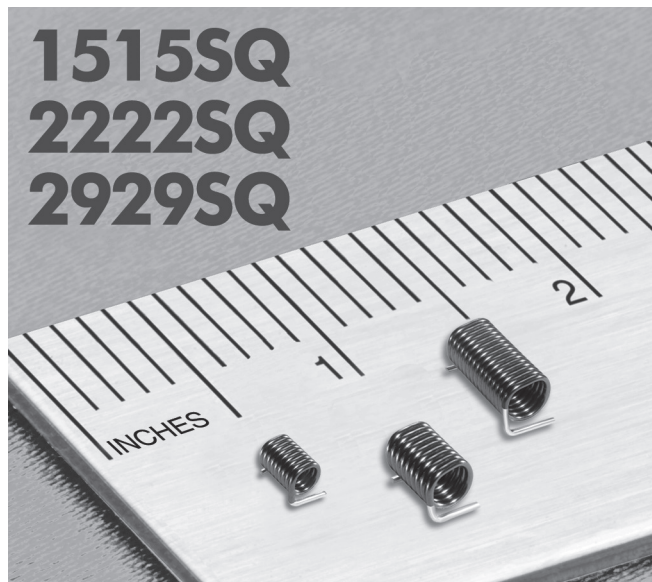


**NEW!**

Square Air Core Inductors

1515SQ
2222SQ
2929SQ



- Excellent Q factors – up to 230 at 400 MHz!
- Current handling as high as 5.7 Amps
- Inductance values from 47 to 500 nH
- Flat top and bottom for reliable pick and place and mechanical stability

Designer's Kit C438 contains 10 each of all 5% parts

Terminations RoHS compliant tin-silver over copper

Ambient temperature –40°C to +125°C with Irms current, +125°C to +145°C with derated current

Storage temperature Component: –40°C to +145°C.
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) +5 to +70 ppm/°C

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

Mean Time Between Failures (MTBF) 1 billion hours

PCB washing Only pure water or alcohol recommended

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q ⁴ typ	Test frequency (MHz)	SRF min ⁵ (GHz)	DCR max (mOhm)	Irms ⁶ (A)
1515SQ-47N_E_	47	5,2	230	400	1.87	6.35	4.9
1515SQ-68N_E_	68	5,2	230	400	2.13	8.60	5.5
1515SQ-82N_E_	82	5,2	230	400	1.79	9.40	5.6
2222SQ-90N_E_	90	5,2	140	50	1.15	5.50	5.0
2222SQ-161_E_	160	5,2	140	50	1.00	8.25	5.7
2222SQ-301_E_	300	5,2	150	50	0.720	13.8	3.7
2929SQ-501_E_	500	5,2	150	50	0.485	16.5	4.3

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

1515SQ-82NJE C

Tolerance: G = 2% J = 5%

(Table shows stock tolerances in bold.)

Termination: E = RoHS compliant tin-silver (96.5/3.5) over copper.

Special order, added cost:

T = RoHS tin-silver-copper (95.5/4/0.5) over copper or S = non-RoHS tin-lead (63/37) over copper.

Packaging: C = 7" machine-ready reel. EIA-481 embossed plastic tape.

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.

2. Inductance measured at specified test frequency, 0.1 Vrms, 0 A using an Agilent/HP 4287A LCR meter with the following Coilcraft test fixtures: CCF1191C for 1515SQ; CCF1197A for 2222SQ and 2929SQ.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured at specified test frequency, using an Agilent/HP 4291A impedance analyzer.

5. SRF measured using an Agilent/HP 8753 network analyzer and the following Coilcraft test fixtures: CCF1143 for 1515SQ; CCF1199 for 2222SQ-90N and 2222SQ-161; CCF1200 for 2222SQ-301 and 2929SQ-501.

6. Current that causes a 20°C temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

S-Parameter files
ON OUR WEB SITE

SPICE models
ON OUR WEB SITE



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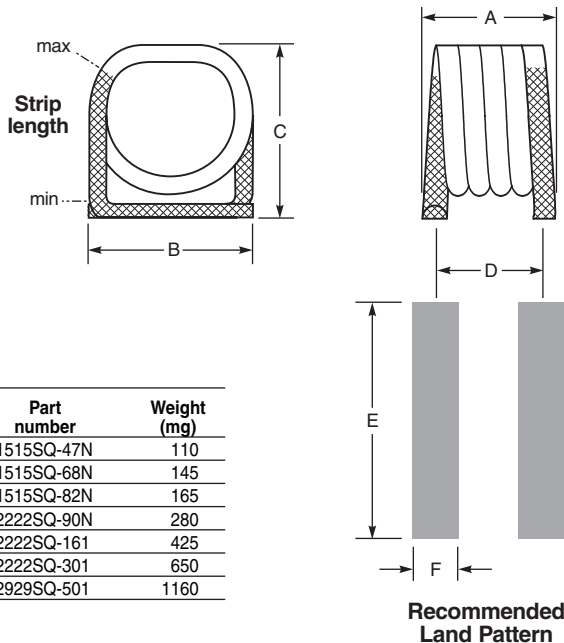
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This product may not be used in medical of high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check out web site for latest information.


NEW!

Square Air Core Inductors – 1515SQ, 2222SQ, 2929SQ



Part number	A	B	C	D	E	F
1515SQ-47N	0.160 ±0.010 4.06 ±0.254	0.140 ±0.007 3.56 ±0.178	0.147 ±0.007 3.73 ±0.178	0.140 3.56	0.175 4.45	0.070 1.78
1515SQ-68N	0.210 ±0.010 5.33 ±0.254	0.140 ±0.007 3.56 ±0.178	0.147 ±0.007 3.73 ±0.178	0.190 4.83	0.175 4.45	0.070 1.78
1515SQ-82N	0.230 ±0.010 5.84 ±0.254	0.140 ±0.007 3.56 ±0.178	0.147 ±0.007 3.73 ±0.178	0.210 5.33	0.175 4.45	0.070 1.78
2222SQ-90N	0.205 ±0.015 5.21 ±0.381	0.215 ±0.010 5.46 ±0.254	0.224 ±0.010 5.69 ±0.254	0.175 4.45	0.255 6.48	0.085 2.16
2222SQ-161	0.290 ±0.015 7.37 ±0.381	0.225 ±0.010 5.72 ±0.254	0.224 ±0.010 5.69 ±0.254	0.260 6.60	0.265 6.73	0.085 2.16
2222SQ-301	0.470 ±0.015 11.94 ±0.381	0.225 ±0.010 5.72 ±0.254	0.224 ±0.010 5.69 ±0.254	0.440 11.18	0.265 6.73	0.085 2.16
2929SQ-501	0.550 ±0.015 14.10 ±0.381	0.295 ±0.010 7.49 ±0.254	0.285 ±0.010 7.24 ±0.254	0.520 13.21	0.325 8.26	0.09 2.29

All dimensions are in $\frac{\text{inches}}{\text{mm}}$.

Packaging:

1515SQ-47N 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth

1515SQ-68N 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth

1515SQ-82N 500/7" reel; 2000/13" reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 4.06 mm pocket depth

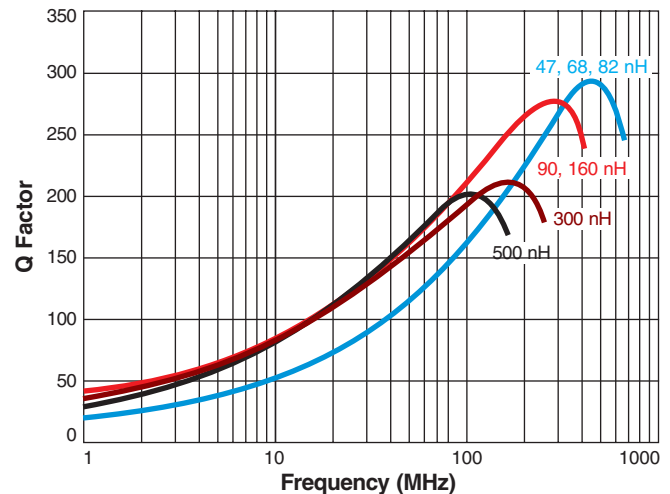
2222SQ-90N 250/7" reel; 750/13" reel Plastic tape: 16 mm wide, 0.32 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth

2222SQ-161 250/7" reel; 750/13" reel Plastic tape: 16 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth

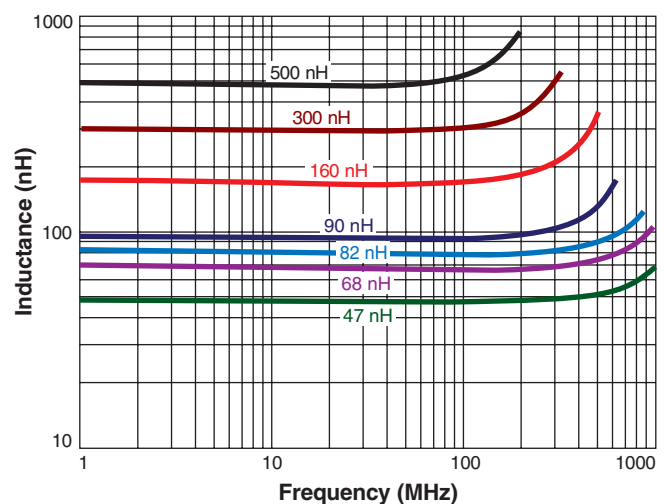
2222SQ-301 250/7" reel; 750/13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 5.97 mm pocket depth

2929SQ-501 150/7" reel; 600/13" reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 7.49 mm pocket depth

Typical Q vs Frequency



Typical L vs Frequency



Irms Derating

