

Chip Inductors – 1008CS Series (2520)

These chip inductors are designed for the needs of today's high frequency designer. Their ceramic construction delivers the highest possible SRFs and Q values. The non-magnetic coilform also ensures the utmost in thermal stability,

predictability and batch consistency. Coilcraft **Designer's Kit C100** contains samples of all 5% inductance tolerance parts. Kits with 2% tolerance are also available.

Part Number ¹	Inductance ² (nH)	Percent Tolerance ³	Q Min ⁴	SRF Min ⁵ (MHz)	DCR Max ⁶ (Ohms)	Idc Max ⁷ (mA)
1008CS-100X_B	10 @ 50 MHz	20,10, 5,2	50 @ 500 MHz	4100	.08	1000
1008CS-120X_B	12 @ 50 MHz	20,10, 5,2	50 @ 500 MHz	3300	.09	1000
1008CS-150X_B	15 @ 50 MHz	20,10, 5,2	50 @ 500 MHz	2500	.10	1000
1008CS-180X_B	18 @ 50 MHz	20,10, 5,2	50 @ 350 MHz	2500	.11	1000
1008CS-220X_B	22 @ 50 MHz	20,10, 5,2,1	55 @ 350 MHz	2400	.12	1000
1008CS-270X_B	27 @ 50 MHz	20,10, 5,2	55 @ 350 MHz	1600	.13	1000
1008CS-330X_B	33 @ 50 MHz	20,10, 5,2	60 @ 350 MHz	1600	.14	1000
1008CS-390X_B	39 @ 50 MHz	20,10, 5,2	60 @ 350 MHz	1500	.15	1000
1008CS-470X_B	47 @ 50 MHz	20,10, 5,2,1	65 @ 350 MHz	1500	.16	1000
1008CS-560X_B	56 @ 50 MHz	10, 5,2,1	65 @ 350 MHz	1300	.18	1000
1008CS-680X_B	68 @ 50 MHz	10, 5,2,1	65 @ 350 MHz	1300	.20	1000
1008CS-820X_B	82 @ 50 MHz	10, 5,2,1	60 @ 350 MHz	1000	.22	1000
1008CS-101X_B	100 @ 25 MHz	10, 5,2,1	60 @ 350 MHz	1000	.56	650
1008CS-121X_B	120 @ 25 MHz	10, 5,2,1	60 @ 350 MHz	950	.63	650
1008CS-151X_B	150 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	850	.70	580
1008CS-181X_B	180 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	750	.77	620
1008CS-221X_B	220 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	700	.84	500
1008CS-271X_B	270 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	600	.91	500
1008CS-331X_B	330 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	570	1.05	450
1008CS-391X_B	390 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	500	1.12	470
1008CS-471X_B	470 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	450	1.19	470
1008CS-561X_B	560 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	415	1.33	400
1008CS-621X_B	620 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	375	1.40	300
1008CS-681X_B	680 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	375	1.47	400
1008CS-751X_B	750 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	360	1.54	360
1008CS-821X_B	820 @ 25 MHz	10, 5,2,1	45 @ 100 MHz	350	1.61	400
1008CS-911X_B	910 @ 25 MHz	10, 5,2,1	35 @ 50 MHz	320	1.68	380
1008CS-102X_B	1000 @ 25 MHz	10, 5,2,1	35 @ 50 MHz	290	1.75	370
1008CS-122X_B	1200 @ 7.9 MHz	10, 5,2	35 @ 50 MHz	250	2.0	310
1008CS-152X_B	1500 @ 7.9 MHz	10, 5,2	28 @ 50 MHz	200	2.3	330
1008CS-182X_B	1800 @ 7.9 MHz	10, 5,2	28 @ 50 MHz	160	2.6	300
1008CS-222X_B	2200 @ 7.9 MHz	10, 5,2	28 @ 50 MHz	160	2.8	280
1008CS-272X_B	2700 @ 7.9 MHz	10, 5,2	22 @ 25 MHz	140	3.2	290
1008CS-332X_B	3300 @ 7.9 MHz	10, 5,2	22 @ 25 MHz	110	3.4	290
1008CS-392X_B	3900 @ 7.9 MHz	10, 5,2	20 @ 25 MHz	100	3.6	260
1008CS-472X_B	4700 @ 7.9 MHz	10, 5,2	20 @ 25 MHz	90	4.0	260
1008CS-562X_B	5600 @ 7.9 MHz	10, 5	16 @ 7.9 MHz	20	4.0	240
1008CS-682X_B	6800 @ 7.9 MHz	10, 5	18 @ 7.9 MHz	40	4.9	200
1008CS-822X_B	8200 @ 7.9 MHz	10, 5	18 @ 7.9 MHz	25	6.0	170

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

Inductance tolerance code:

Table above shows stock tolerances in bold.

F= ±1%, G= ±2%, J= ±5%, K= ±10%, M= ±20%

1008CS-822X_B

Packaging code:

C = 7" machine-ready reel EIA RS-481 clear plastic tape. 2000 per reel.

B = Less than full reel Not machine-ready. The carrier tape may not be a single continuous length. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel EIA RS-481 clear plastic tape. Factory order only, not stocked. 7500 per reel.

2. Inductance measured using Coilcraft SMD-A fixture in Agilent/HP4286A impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.

3. Tolerances in bold are stocked for immediate shipment.

4. Q measured using Agilent/HP4291A with Agilent/HP16193 test fixture and on Agilent/HP8753D with Coilcraft SMD-D test fixture.

5. SRF measured using Agilent/HP8753D network analyzer and Coilcraft SMD-D test fixture.

6. DCR measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF 840 test fixture.

7. For 15° C rise.

8. Operating temperature range -40° C to +125° C.

9. Electrical specifications at 25° C.

10. For environmental data, see "Product Specifications" page (Doc. 121).

11. For part marking data, see "Color Coding" page (Doc. 174).

Specifications subject to change without notice. Document 101-1 Revised 4/19/01

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Web http://www.coilcraft.com

1008CS Series (2520)

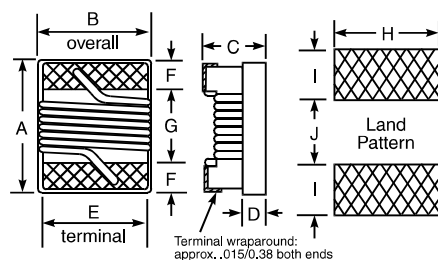
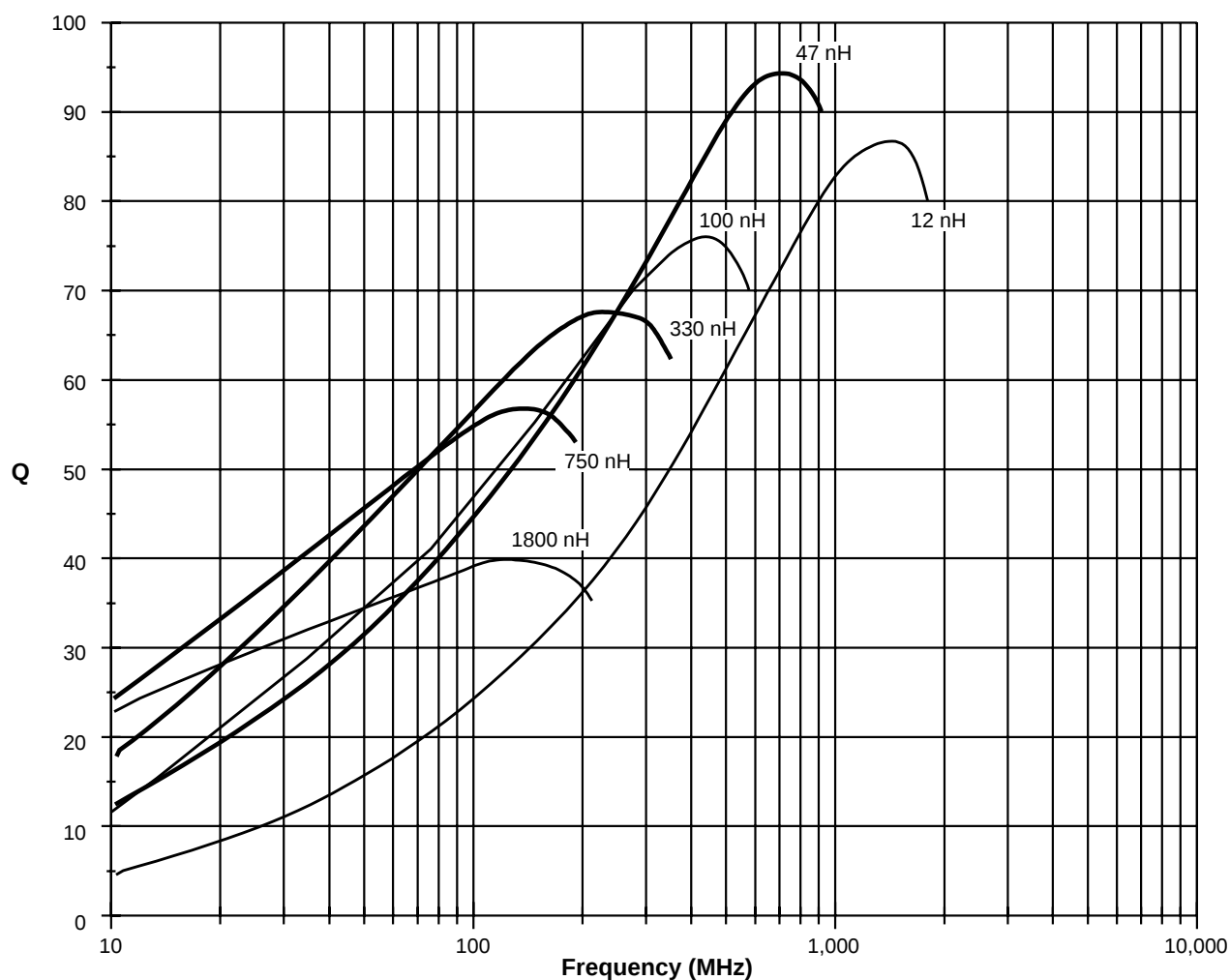
S-Parameter files

ON OUR WEB SITE OR CD

PSpice models

SEE CATALOG, WEB SITE OR CD

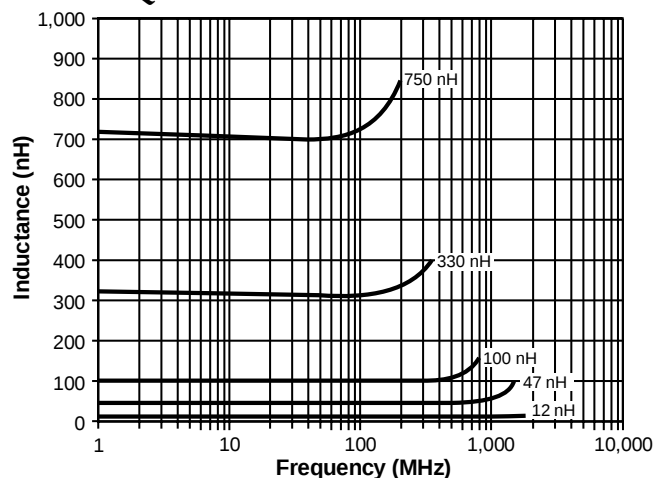
TYPICAL Q vs FREQUENCY



A	B	C	D	E	F	G	H	I	J
Max.	Max.	Max.	Ref.						
.115	.110	.080	.020	.080	.020	.060	.100	.040	.050
2.92	2.79	2.03	0.51	2.03	0.51	1.52	2.54	1.02	1.27

Parts/reel: 7" 2,000; 13" 7,500 Tape width: 8 mm
For packaging data, see "Tape and Reel Specifications" (Document 173).

L vs FREQUENCY



Coilcraft

Specifications subject to change without notice. Document 101-2 Revised 4/9/01

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469
E-mail info@coilcraft.com Web <http://www.coilcraft.com>