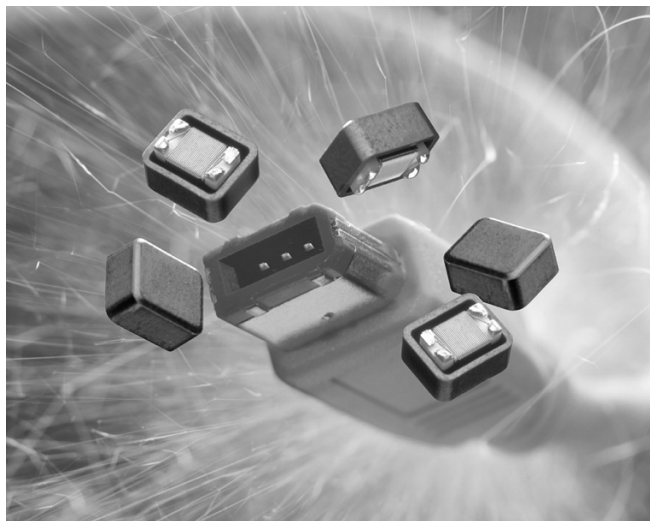


IEEE 1394 Common Mode Choke



The CM1394 provides a low cost, high performance way to virtually eliminate common mode noise from IEEE 1394 and other high-speed twisted pair interfaces.

It provides over 17 dB attenuation of common mode noise at 400 MHz while differential mode signals extend out to 800 MHz before reaching the 3 dB point.

This shielded, 1812 size filter is machine wound, making it less expensive than hand-wound toroid designs. It also assures tighter tolerances between windings for excellent impedance balance. Coilcraft's CM1394 meets the IEEE 1.5 Amp Irms specification and has a maximum DCR of 0.105 Ohms.

To request free evaluation samples, contact Coilcraft or visit www.coilcraft.com.

Part number ¹	Inductance ² min (μH)	DCR max ³ (Ohms)	Irms ⁴ (Amps)
CM1394L_	0.22	0.105	1.5

Insertion loss (dB) common mode/differential mode			
100 MHz	200 MHz	400 MHz	500 MHz
9.04/0.19	13.66/0.94	17.75/1.79	17.11/2.09

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

CM1394LC

- Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (600 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 (2200 parts per full reel).

2. Inductance measured at 100 kHz.

3. DCR is for each winding

4. Current that causes a 15°C rise from 25°C ambient

5. Electrical specifications at 25°C

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

Core material Ferrite

Terminations RoHS compliant gold over nickel over moly-manganese

Weight: 30 mg

Ambient temperature -40°C to +85°C

Storage temperature Component: -40°C to +85°C.

Tape and reel 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

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

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 600/7" reel; 2200/13" reel Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 3.9 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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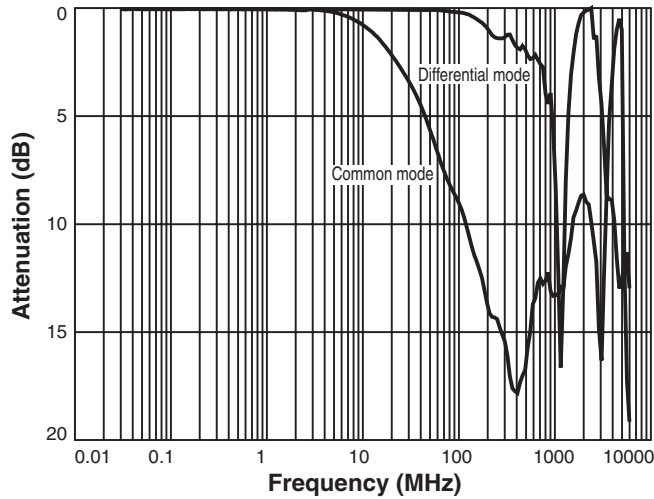
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

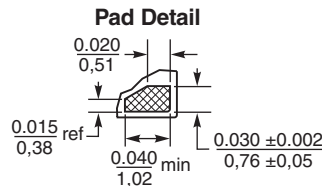
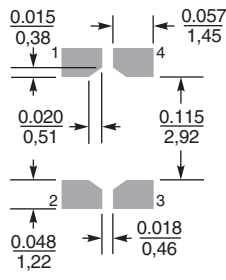
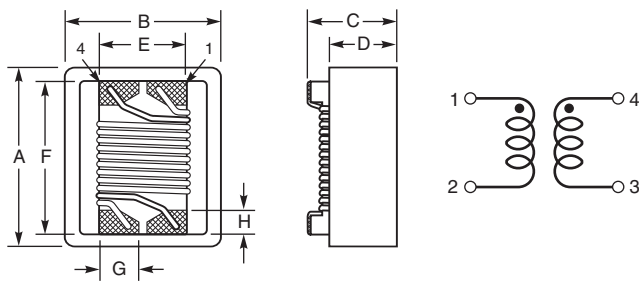
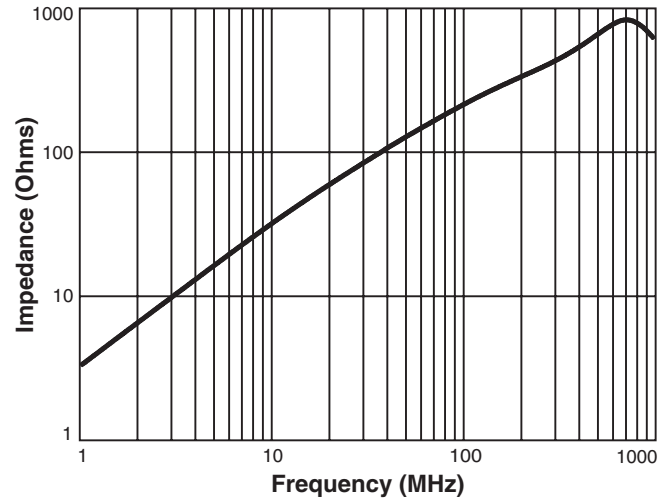


IEEE 1394 Common Mode Choke

Frequency Response



Impedance vs Frequency



Recommended Land Pattern

A max	B max	C max	D ref	E ref	F ref	G min	H
0.231	0.196	0.150	0.107	0.100	0.178	0.04	0.03
5,87	4,98	3,81	2,72	2,54	4,52	1,02	0,76



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