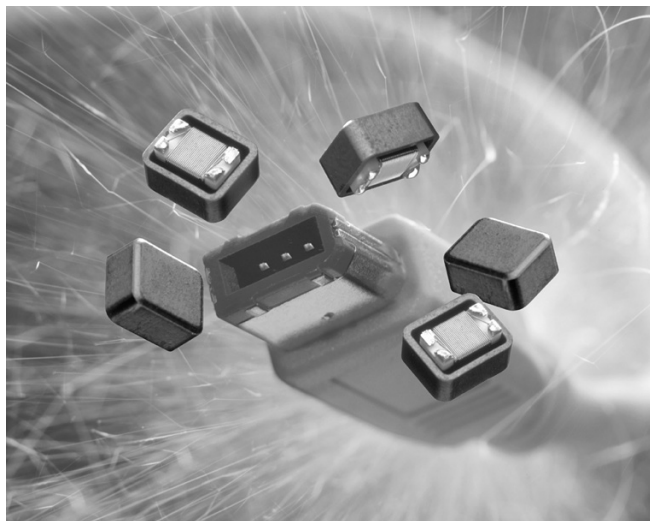




# IEEE 1394 Common Mode Choke



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](http://www.coilcraft.com).

| Part number <sup>1</sup> | Inductance <sup>2</sup><br>min (μH) | DCR max<br>(Ohms) | Irms <sup>3</sup><br>(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. Average current for 15°C rise from 25°C ambient

4. Operating temperature range -40°C to +85°C

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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Document 215-1 Revised 01/26/05

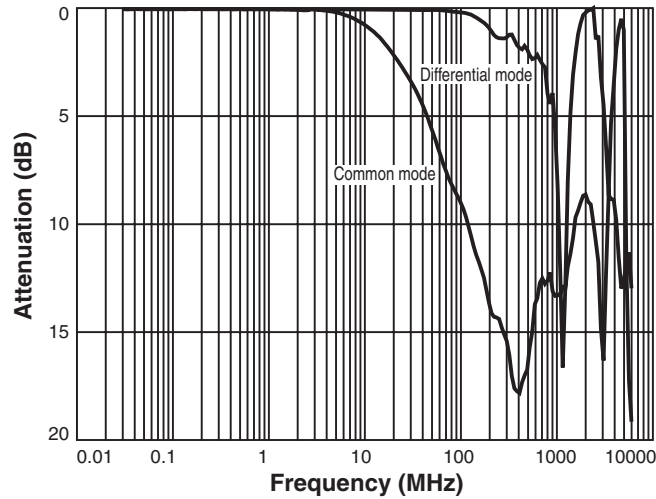
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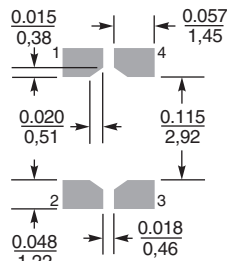
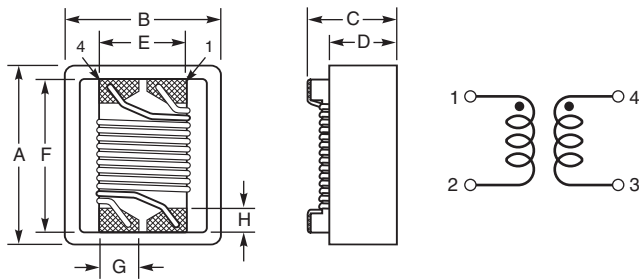
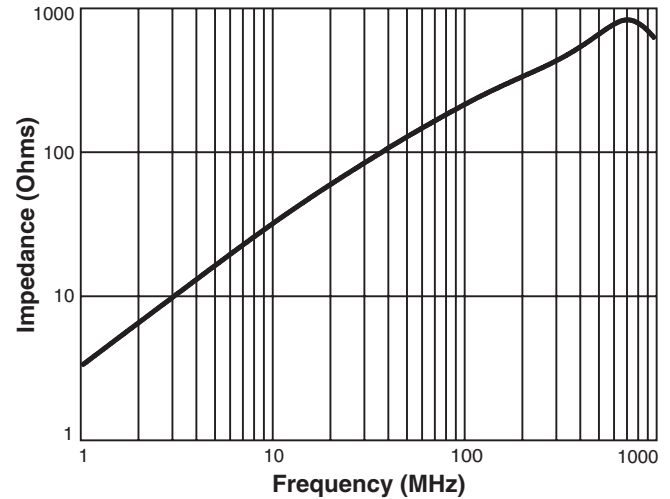


# IEEE 1394 Common Mode Choke

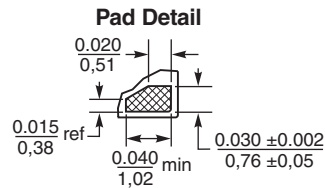
## Frequency Response



## 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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Document 215-2 Revised 01/26/05

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## Данный компонент на территории Российской Федерации

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Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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