



# Ultra Low Profile Common Mode Choke 0805



- For noise suppression in super high speed signal lines: USB 3.x, HDMI 2.0, HDBaseT™, DisplayPort, DVI, etc.; and in high speed differential signal lines: USB 2.0, IEEE1394, LVDS, etc.
- Up to 6.5 GHz differential mode 3 dB cutoff frequency; up to 35 dB common mode noise attenuation in GHz range
- Lowest profile 0805 common mode choke – 0.93 mm tall

**Core material** Ferrite  
**Environmental** RoHS compliant  
**Terminations** Matte tin over nickel over silver-palladium-glass frit.  
**Weight** 9.0 – 13.0 mg  
**Ambient temperature** –40°C to +125°C with Irms current.  
**Maximum part temperature** 140°C  
**Storage temperature** Component: –40°C to +140°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** 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.07 mm pocket depth  
**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

| Part number <sup>1</sup> | Common mode peak impedance (kOhms) | Cutoff frequency <sup>2</sup> (GHz) | Common mode attenuation typ (dB) |         |         | Inductance <sup>3</sup> min (nH) | DCR max <sup>4</sup> (Ohms) | Isolation <sup>5</sup> (Vrms) | Irms <sup>6</sup> (mA) |
|--------------------------|------------------------------------|-------------------------------------|----------------------------------|---------|---------|----------------------------------|-----------------------------|-------------------------------|------------------------|
|                          |                                    |                                     | 10 MHz                           | 100 MHz | 500 MHz |                                  |                             |                               |                        |
| 0805USBN-121MR_          | 0.14 @ 2.6 GHz                     | 6.4                                 | 0.04                             | 0.5     | 5.0     | 14                               | 0.11                        | 250                           | 500                    |
| 0805USBN-271MR_          | 0.30 @ 2.5 GHz                     | 5.1                                 | 0.09                             | 1.4     | 10.0    | 30                               | 0.14                        | 250                           | 500                    |
| 0805USBN-481MR_          | 0.60 @ 3.0 GHz                     | 3.4                                 | 0.13                             | 3.5     | 14.7    | 53                               | 0.22                        | 250                           | 500                    |
| 0805USBN-701MR_          | 0.79 @ 2.0 GHz                     | 3.4                                 | 0.18                             | 5.3     | 17.4    | 77                               | 0.235                       | 250                           | 500                    |
| 0805USBN-941MR_          | 1.28 @ 1.4 GHz                     | 3.5                                 | 0.30                             | 7.6     | 21.1    | 105                              | 0.27                        | 250                           | 500                    |
| 0805USBN-132MR_          | 1.61 @ 1.2 GHz                     | 2.3                                 | 0.50                             | 10.0    | 24.4    | 140                              | 0.32                        | 250                           | 500                    |
| 0805USBN-162MR_          | 2.00 @ 1.0 GHz                     | 1.5                                 | 0.78                             | 12.1    | 27.3    | 182                              | 0.37                        | 250                           | 450                    |
| 0805USBN-222MR_          | 2.47 @ 0.96 GHz                    | 1.7                                 | 1.14                             | 14.0    | 30.0    | 252                              | 0.63                        | 250                           | 350                    |

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

**0805USBN-222MRC**

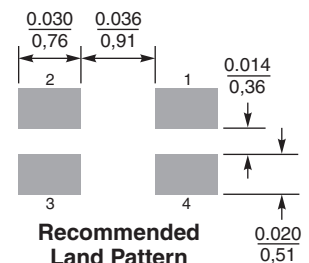
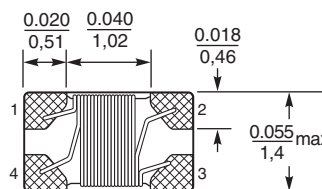
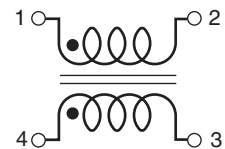
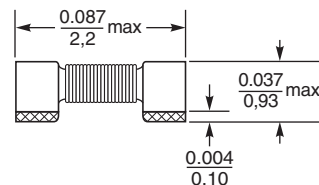
**Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).

**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 (7500 parts per full reel).

2. Frequency at which the differential mode attenuation equals –3 dB
3. Inductance measured at 100 MHz using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture.
4. DCR is specified per winding.
5. Winding to winding isolation (hipot) tested for one minute.
6. Current per winding that causes a 15°C rise from 25°C ambient.
7. Electrical specifications at 25°C.

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



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

**Recommended Land Pattern**



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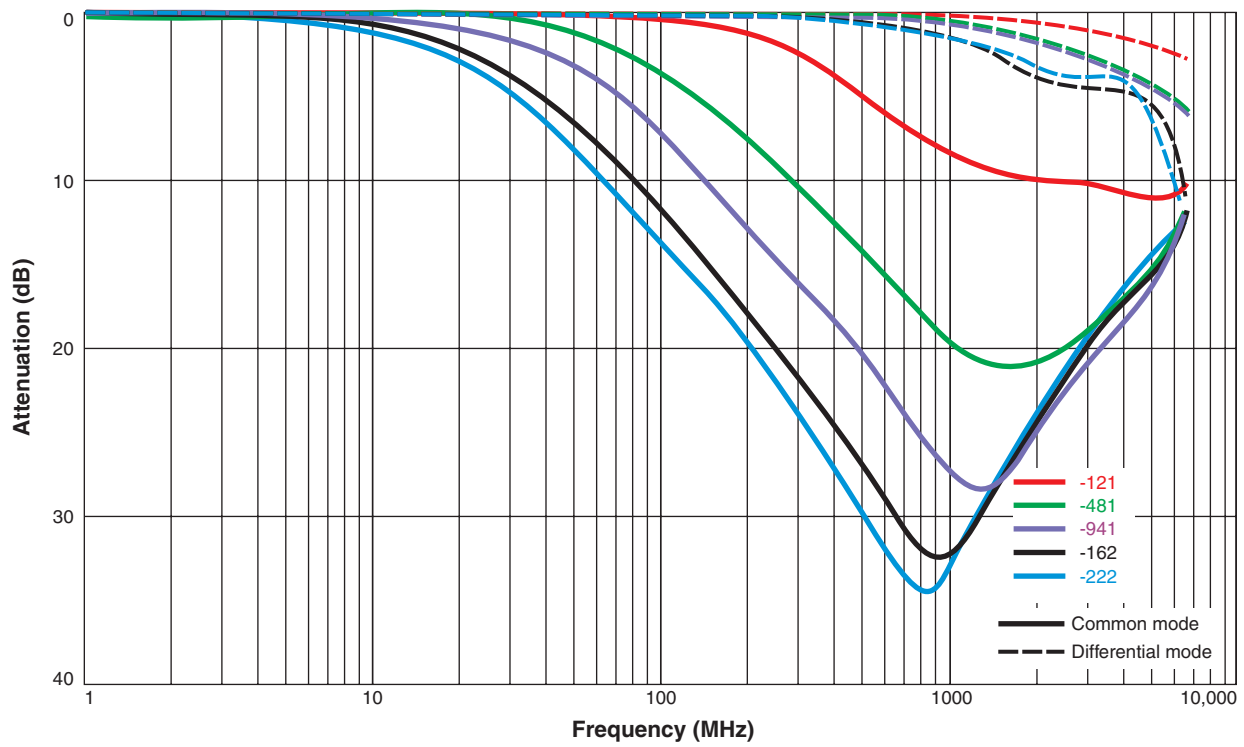
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Designer's Kit C470 contains 10 each of all 0603USB, 0805USB, 0805USBF, 0805USBN and 1206USB parts

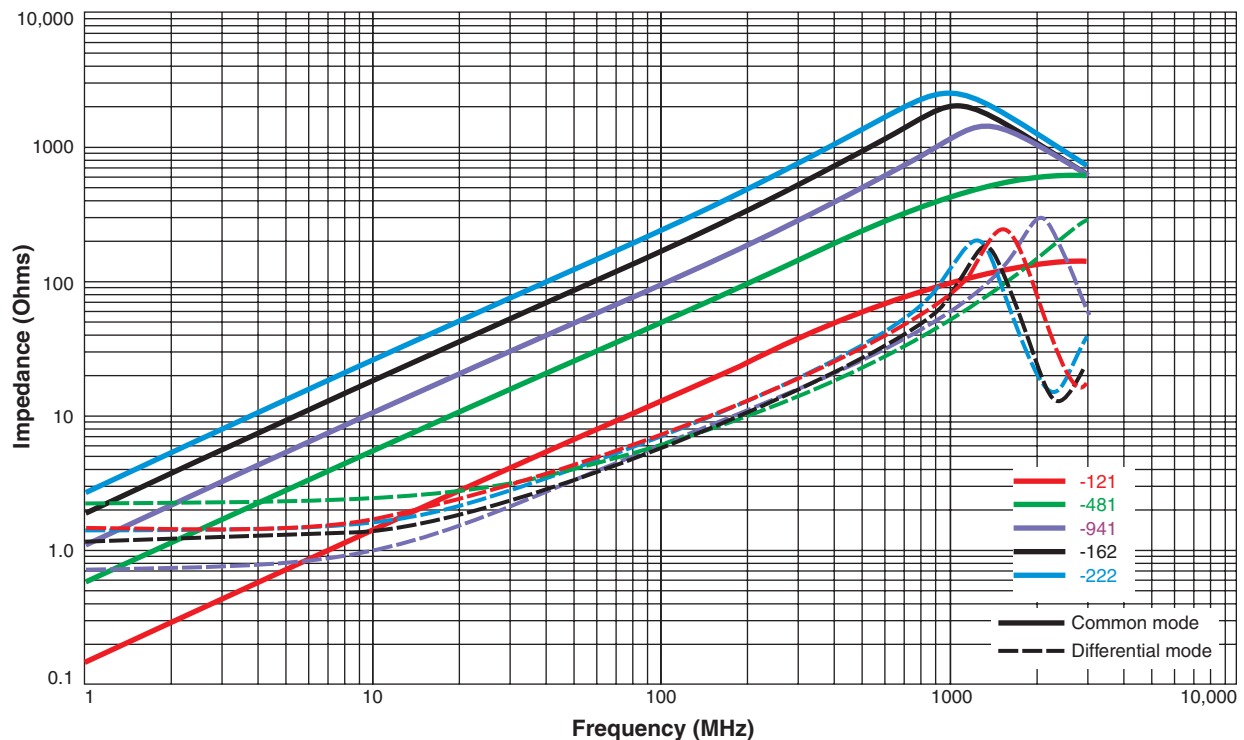


# Ultra Low Profile Common Mode Choke – 0805

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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### Офис по работе с юридическими лицами:

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