Low Profile USB 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.
- Suitable for USB-type C specification 1.0
- Up to 6 GHz differential mode 3 dB cutoff frequency; up to 30 dB common mode noise attenuation in GHz range

Core material: Ferrite
Environmental: RoHS compliant
Terminations: Matte tin over nickel over silver-palladium-glass frit.
Weight: 14.7 – 15.5 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; Plastic tape: 8 mm wide, 0.25 mm thick, 4 mm pocket spacing, 1.295 mm pocket depth

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode peak impedance (kOhms)</th>
<th>Cutoff frequency (GHz)</th>
<th>Common mode attenuation typ (dB)</th>
<th>Inductance min (nH)</th>
<th>DCR max (Ohms)</th>
<th>Isolation (Vrms)</th>
<th>Irms (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0805USBF-421MR</td>
<td>&gt;0.14 @ &gt;3.0 GHz</td>
<td>6.6</td>
<td>4.6</td>
<td>28</td>
<td>0.11</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-901MR</td>
<td>&gt;0.30 @ &gt;3.0 GHz</td>
<td>5.8</td>
<td>2.1</td>
<td>60</td>
<td>0.14</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-172MR</td>
<td>0.52 @ 2.5 GHz</td>
<td>3.3</td>
<td>4.0</td>
<td>101</td>
<td>0.22</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-262MR</td>
<td>0.69 @ 2.0 GHz</td>
<td>2.4</td>
<td>5.7</td>
<td>165</td>
<td>0.235</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-372MR</td>
<td>0.93 @ 1.8 GHz</td>
<td>1.4</td>
<td>5.8</td>
<td>241</td>
<td>0.27</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-502MR</td>
<td>1.22 @ 1.5 GHz</td>
<td>0.93</td>
<td>11.2</td>
<td>315</td>
<td>0.32</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>0805USBF-672MR</td>
<td>1.65 @ 1.2 GHz</td>
<td>0.69</td>
<td>11.3</td>
<td>434</td>
<td>0.37</td>
<td>250</td>
<td>450</td>
</tr>
<tr>
<td>0805USBF-902MR</td>
<td>1.91 @ 1.0 GHz</td>
<td>0.73</td>
<td>12.6</td>
<td>560</td>
<td>0.63</td>
<td>250</td>
<td>350</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

    0805USBF-902MR

    Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

    D = 13″ machine-ready reel. EIA-481 embossed plastic tape (7500 parts per full reel).

    B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

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.
USB 2.0, 3.x Common Mode Filter — 0805USBF

Typical Attenuation (Ref: 50 Ohms)

Typical Impedance vs Frequency