RoHS/ REACH COMPLIANT

Halogen Free

Ultra Low Profile Common Mode Choke 0805

- For noise suppression in super high speed signal lines: USB 3.x, HDMI 2.0, HDBaseT™, DiplayPort, 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[1]	Common mode peak impedance (kOhms)	Cutoff frequency[2] (GHz)	Common mode attenuation typ (dB) 10 MHz	100 MHz	500 MHz	Inductance[3] min (nH)	DCR max[4] (Ohms)	Isolation[5] (Vrms)	Irms[6] (mA)
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

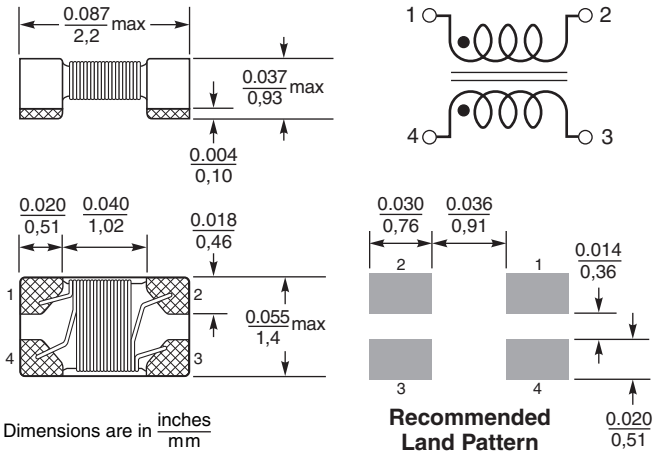
1. When ordering, please specify **packaging** code:

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 inches / mm

Recommended Land Pattern

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

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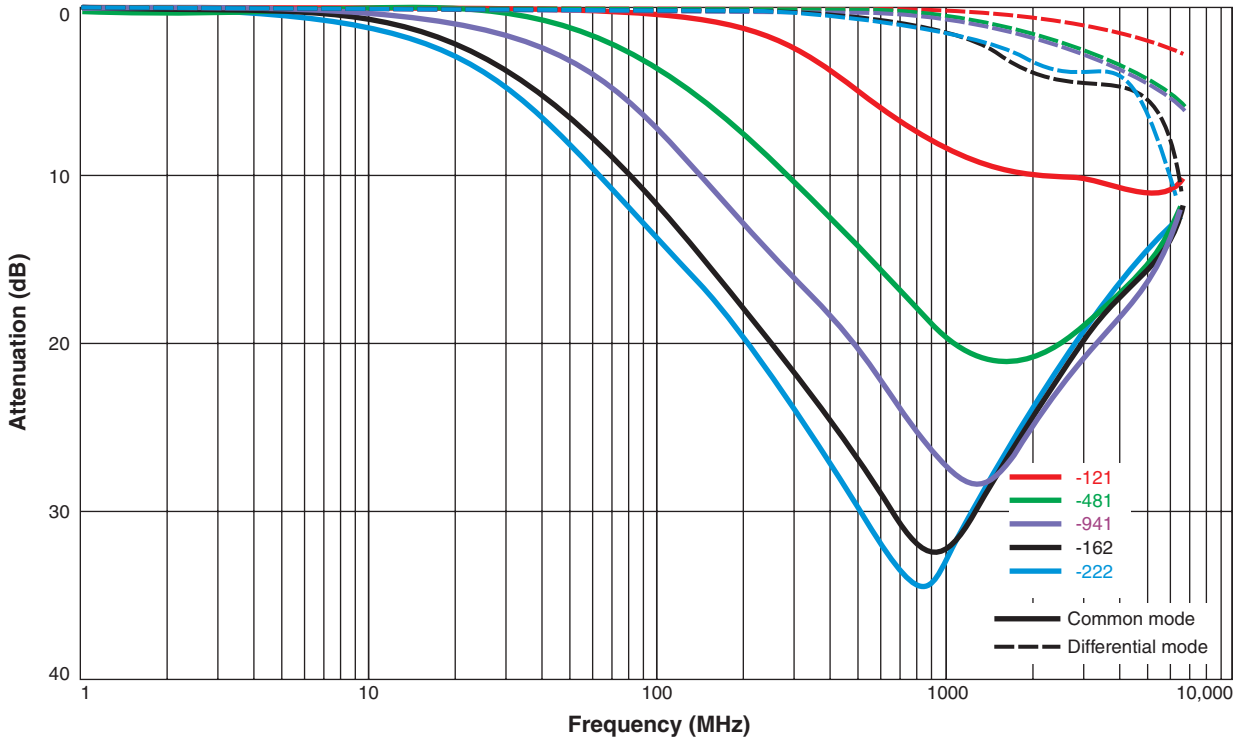
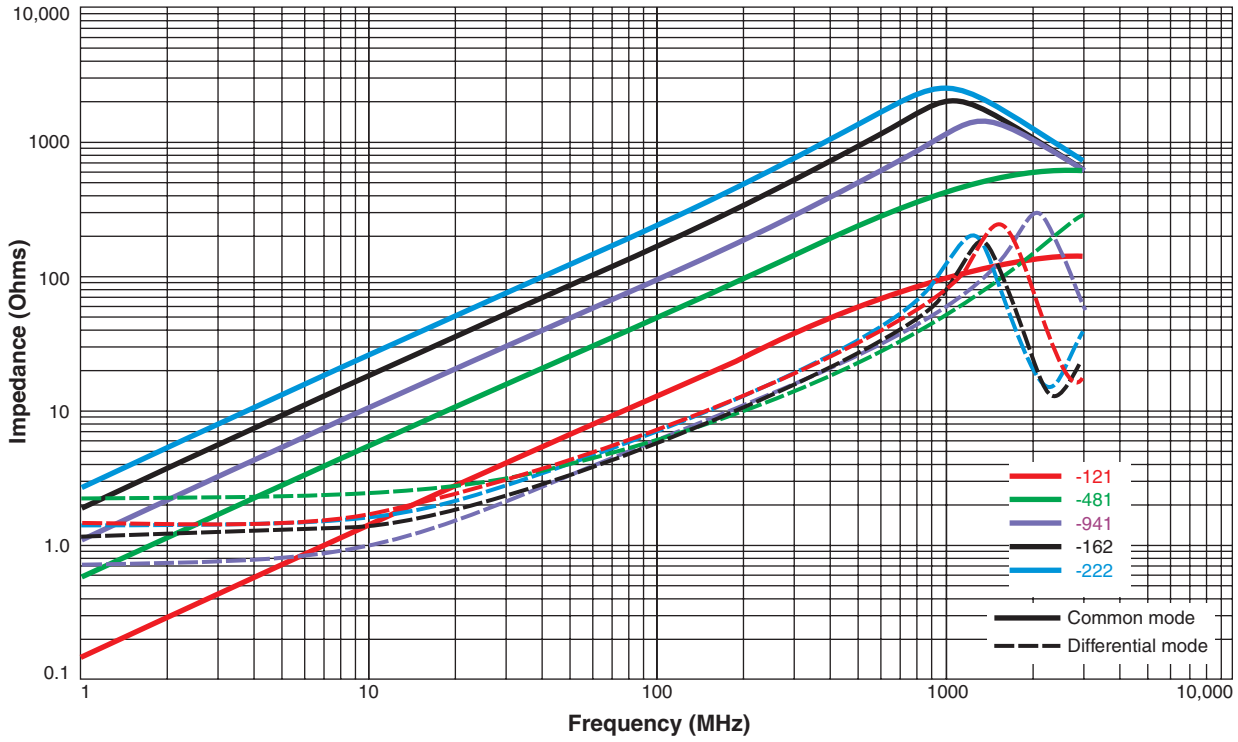
Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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