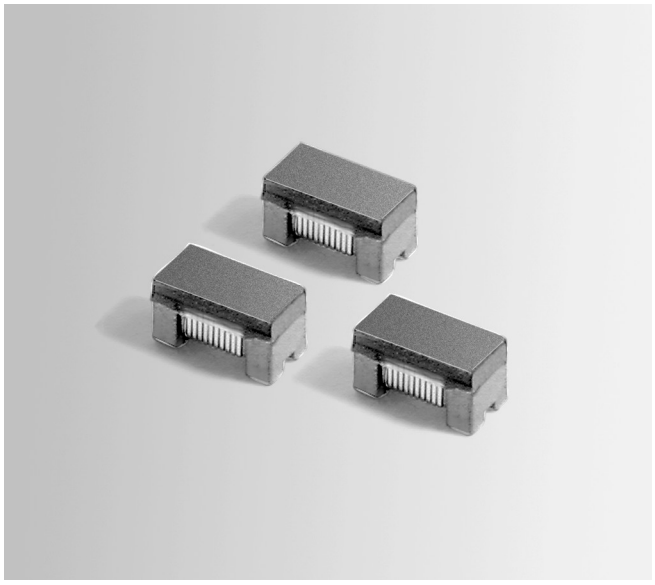
USB 3.0 Common Mode Choke 0603



- Designed for high-speed USB 3.0, HDMI, SATA, IEEE1394 and LVDS applications; data rates up to 4.8 Gbit/s.
- Miniature EIA 0603 footprint; only 1.07 mm tall
- Most values provide >15 dB common mode attenuation and >100 ohms impedance.

Designer's Kit C384 contains 10 of each value and all values of our 1206USB and 0805USB

Core material Ferrite

Environmental RoHS compliant, halogen free

Terminations Gold over nickel over silver-palladium-glass frit

Ambient temperature –40°C to +85°C with Irms current, +85°C to +105°C with derated current

Storage temperature Component: –40°C to +105°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

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

Part number[1]	Common mode impedance typ (Ohms) 100 MHz	500 MHz	1 GHz	Common mode attenuation typ (dB) 100 MHz	500 MHz	1 GHz	Inductance[2] min (nH)	DCR max[3] (Ohms)	Isolation (Vrms)	Irms[4] (mA)
0603USB-251ML_	25	44	64	1.31	3.16	8.45	18	0.077	250	500
0603USB-601ML_	60	99	142	3.00	6.88	13.27	37	0.109	250	500
0603USB-951ML_	95	156	234	4.62	9.75	16.06	63	0.142	250	500
0603USB-142ML_	145	242	353	6.85	12.80	18.16	98	0.174	250	500
0603USB-222ML_	225	384	592	9.14	16.53	20.29	150	0.209	250	500

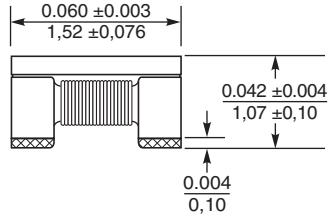
1. When ordering, please specify **packaging** code:

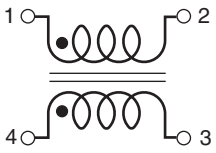
0603USB-222MLC

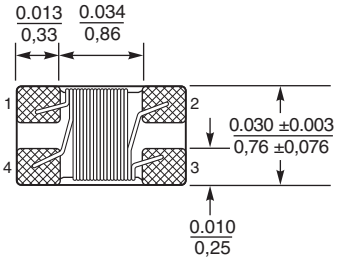
Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel).
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape (7500 parts per full reel).

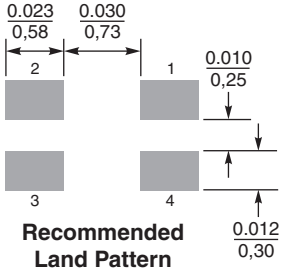
2. Inductance measured at 100 MHz using an Agilent/HP 4286A impedance analyzer and a Coilcraft SMD-A fixture.
3. DCR is specified per winding.
4. Current per winding that causes a 20°C rise from 25°C ambient.
5. Electrical specifications at 25°C.

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









Recommended Land Pattern

Dimensions are in inches / mm

Weight 4.9 – 5.2 mg

Packaging 2000 per 7″reel; 7500 per 13″ reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

Coilcraft
www.coilcraft.com

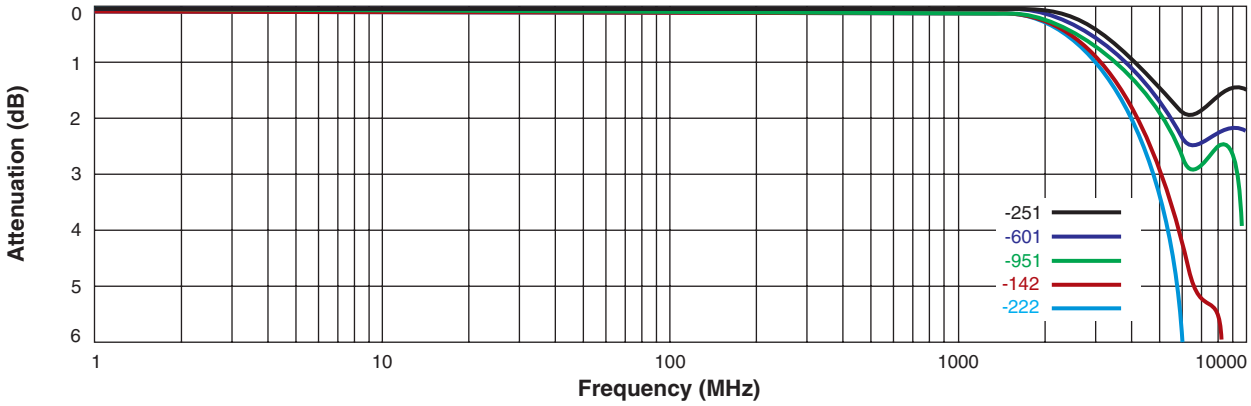
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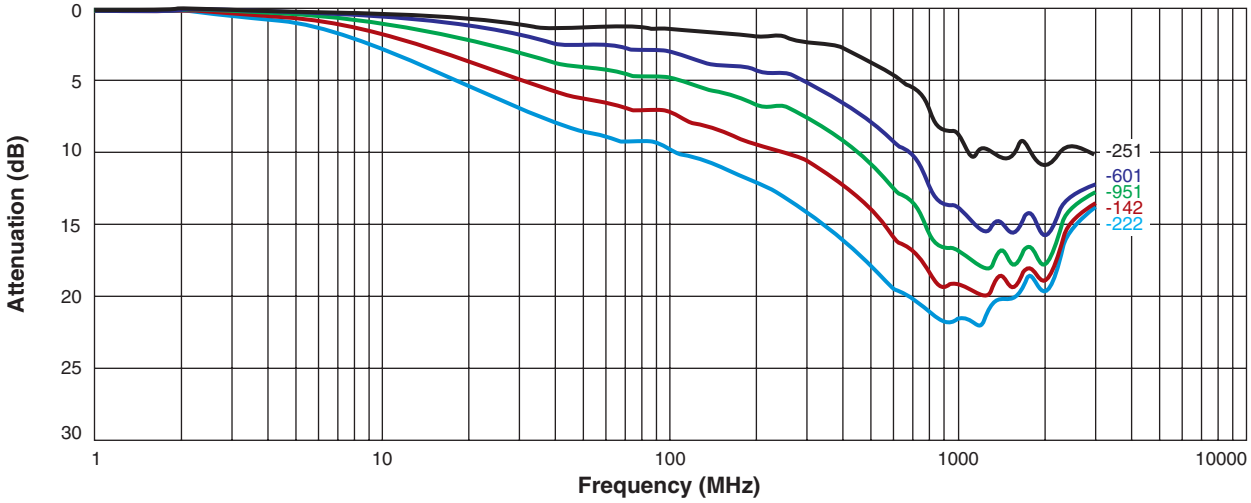
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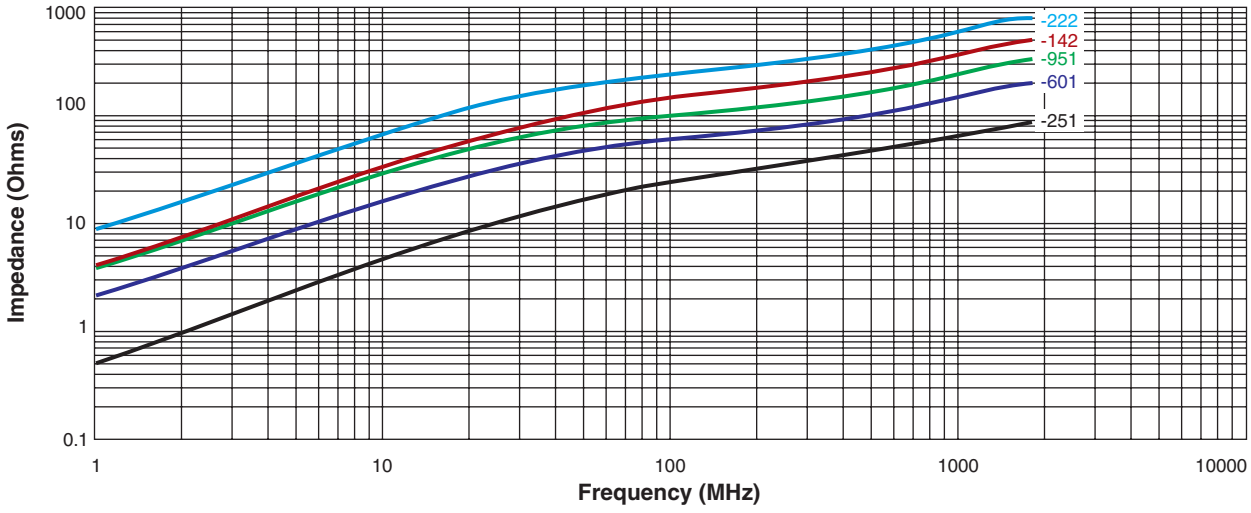
Typical differential mode attenuation (Ref: 50 Ohms)



Typical common mode attenuation (Ref: 50 Ohms)



Typical impedance vs frequency



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