

USB 2.0 Common Mode Choke 1206



Eliminates virtually all common mode noise in high-speed, differential mode signal transmission applications such as USB 2.0, IEEE1394, HDMI and LVDS. Most provide >30 dB common mode attenuation and >100 ohms impedance.

Designer's Kit C384 contains 10 each of all 0603USB, 0805USB and 1206USB parts

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

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

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)			Common mode attenuation typ (dB)			Inductance ² min (nH)	DCR max ³ (Ohms)	Isolation (Vrms)	Irms ⁴ (mA)
	10 MHz	100 MHz	500 MHz	10 MHz	100 MHz	500 MHz				
1206USB-371ML_	15	37	95	1.0	2.1	12.0	31	0.10	250	1000
1206USB-102ML_	30	100	200	1.5	4.2	19.0	66	0.14	250	850
1206USB-172ML_	55	170	345	2.3	6.8	26.0	107	0.18	250	700
1206USB-262ML_	85	265	545	3.0	9.7	31.0	161	0.22	250	600
1206USB-372ML_	125	370	775	4.7	12.0	33.0	226	0.26	250	600
1206USB-532ML_	170	530	1190	5.5	15.0	35.0	319	0.30	250	600
1206USB-672ML_	200	670	1500	7.3	16.5	33.0	412	0.34	250	500
1206USB-872ML_	265	870	2010	9.1	18.0	32.0	510	0.39	250	500
1206USB-113ML_	330	1100	2425	10.2	21.0	31.0	623	0.44	250	500

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

1206USB-113MLC

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

6. Electrical specifications at 25°C.

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



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

Weight: 36.2 – 37.6 mg

Packaging 2000/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.9 mm pocket depth



USB 2.0 Common Mode Filter – 1206

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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