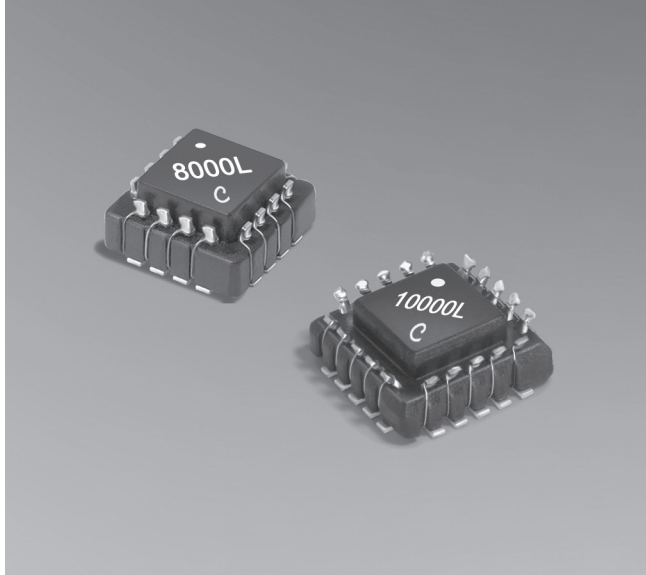




SMT Data Line EMI Filters – CDF



- See our PDLF series for 4, 3 and 2-line EMI filters
- Exceptional common mode noise attenuation from 15 MHz to 300 MHz; passes signal line data below 300 MHz with minimal attenuation
- DC current capacity of 500 or 100 mA.
- Excellent electrical isolation – 360 Vrms

Core material Ferrite

Terminations RoHS compliant tin-silver-copper over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 330 – 345 mg

Ambient temperature –40°C to +85°C

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)

Mean Time Between Failures (MTBF) 26,315,789 hours

Packaging 1000/13" reel Plastic tape: 16 mm wide, 0.46 mm thick, 12 mm pocket spacing, 4.5 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	Lines	Common mode peak impedance (kOhms)	Cutoff frequency ² (GHz)	Inductance min (μH) ³	DCR max ⁴ (mOhms)	Isolation ⁵ (Vrms)	Current ⁶ (mA _{dc})
CDF8000L_	8	0.63 @ 37 MHz	0.053	5.0	250	300	100
CDF8500L_	8	0.52 @ 42 MHz	0.053	5.0	180	300	500
CDF10000L_	10	0.52 @ 43 MHz	0.043	5.0	250	360	100

1. When ordering, please specify **termination** and **packaging** codes:

CDF10000LD

Termination L = RoHS compliant tin-silver-copper over tin over nickel over phos bronze. Other terminations available at additional cost.

Special order: S = non-RoHS tin-lead (63/37).

Packaging D = 13" machine ready reel. EIA-481 embossed plastic tape (1000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

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 D.

2. Frequency at which the differential mode attenuation equals –3 dB

3. Inductance shown for each winding, measured at 1 MHz

4. DCR is for each winding.

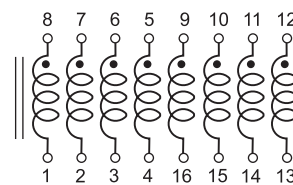
5. Interwinding isolation (hipot) tested for one minute.

6. Current rating is for each line.

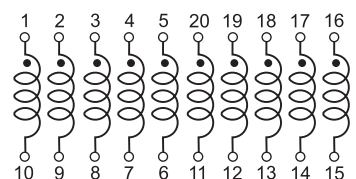
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Schematics

CDF8x00L



CDF10000L



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1289-1 Revised 12/21/20

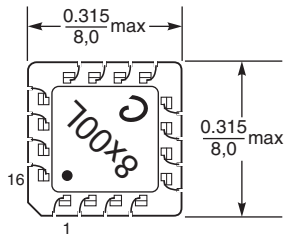
© Coilcraft Inc. 2020

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

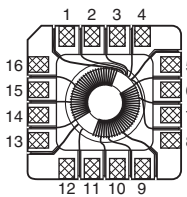


CDF Surface Mount Data Line EMI Filters

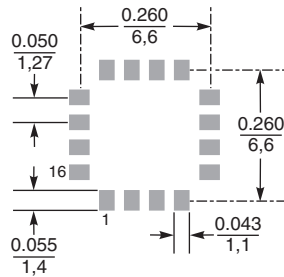
Dimensions – CDF8x00



Note: Location of the wire slots for parts manufactured prior to August 2017 may be different.

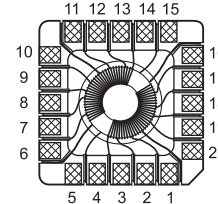
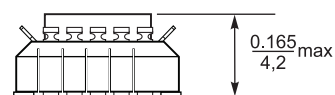
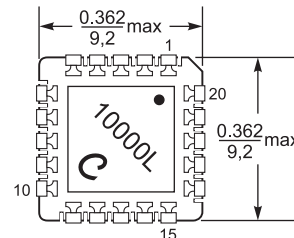


Dimensions are in $\frac{\text{inches}}{\text{mm}}$

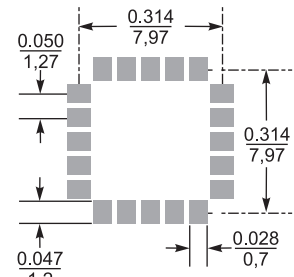


Recommended Land Pattern

Dimensions – CDF10000



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

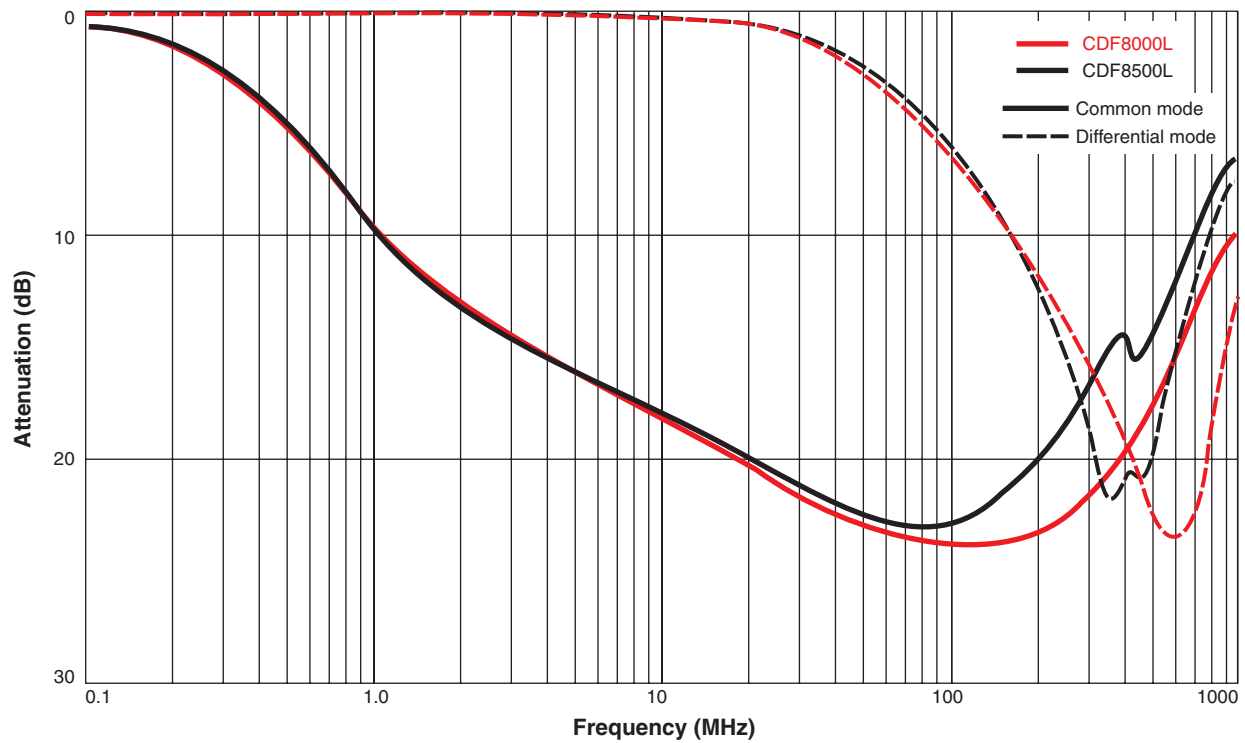


Recommended Land Pattern

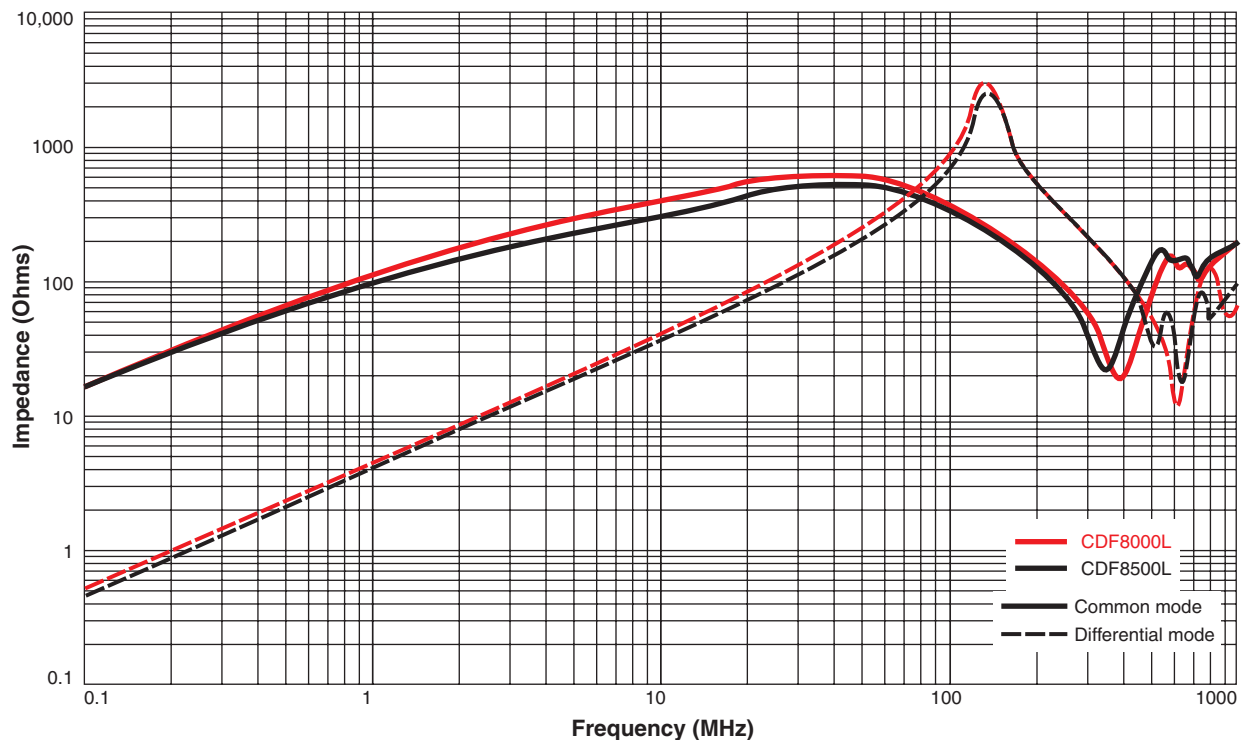


CDF8x00 Surface Mount Data Line EMI Filters

Attenuation (Ref: 50 Ohms)



Impedance vs Frequency



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1289-3 Revised 08/27/20

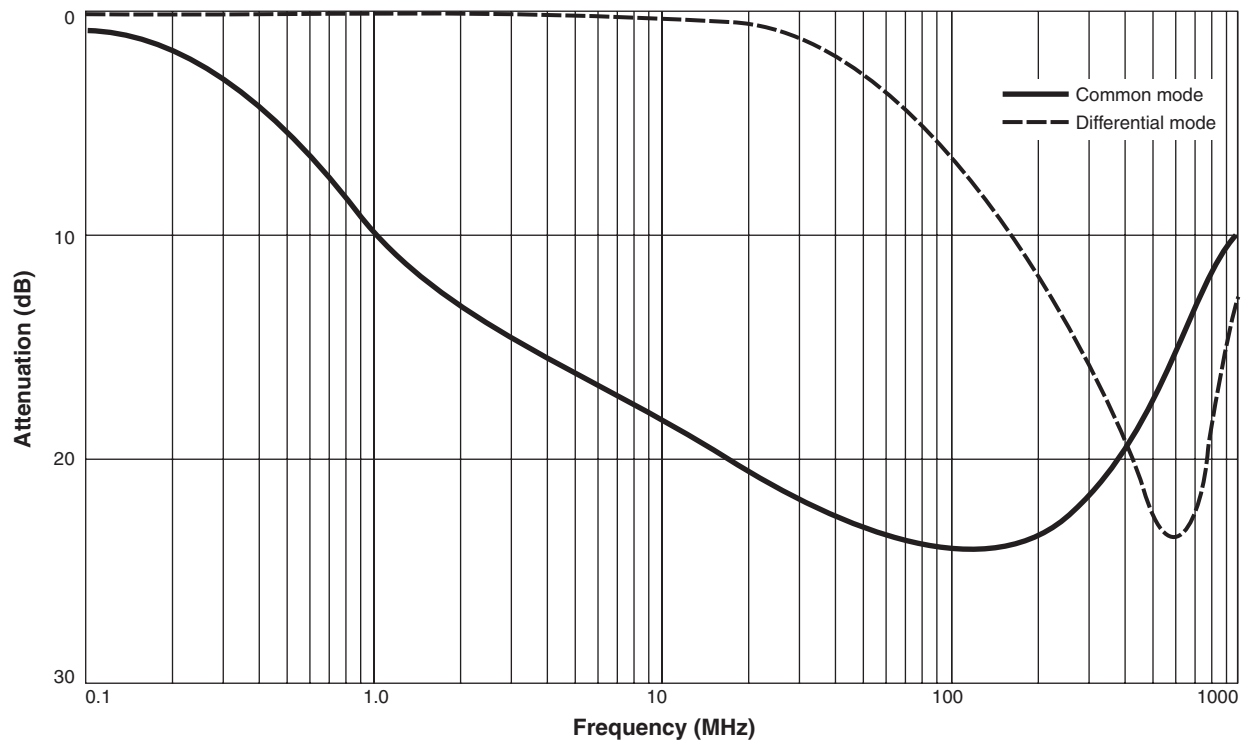
© Coilcraft Inc. 2020

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

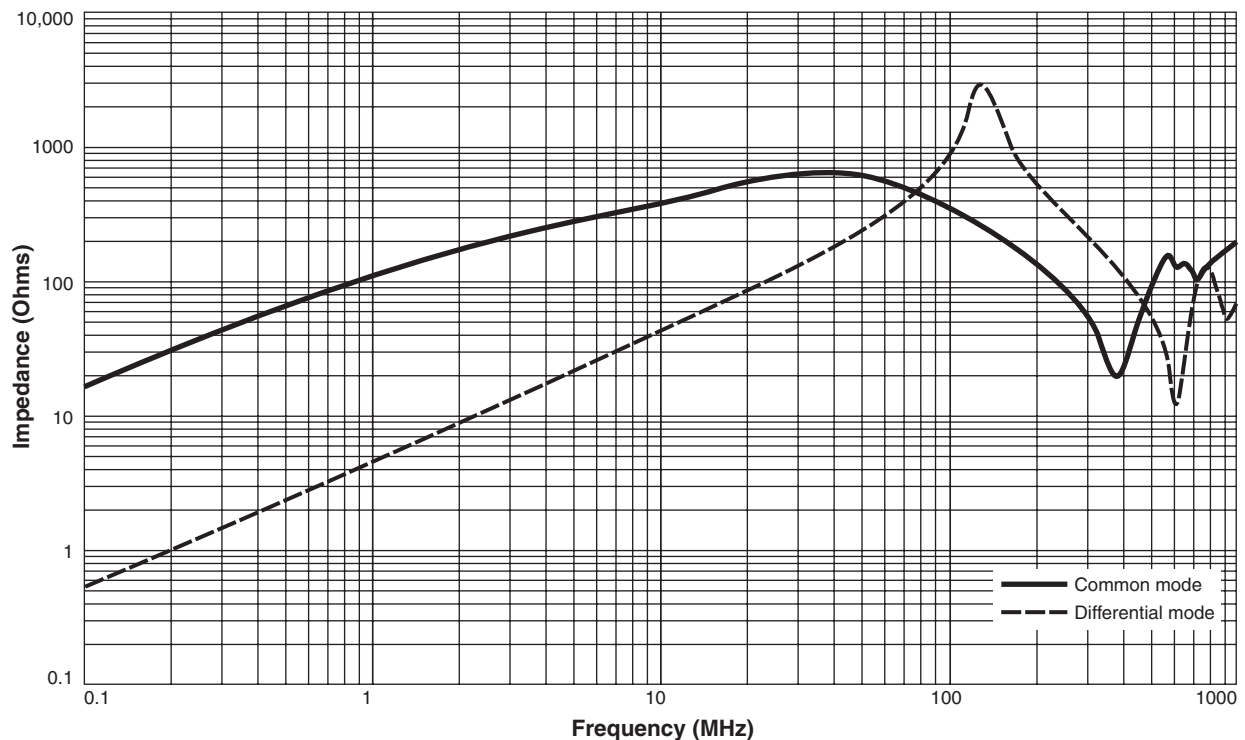


CDF10000 Surface Mount Data Line EMI Filters

Attenuation (Ref: 50 Ohms)



Impedance vs Frequency



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1289-4 Revised 08/27/20

© Coilcraft Inc. 2020

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.