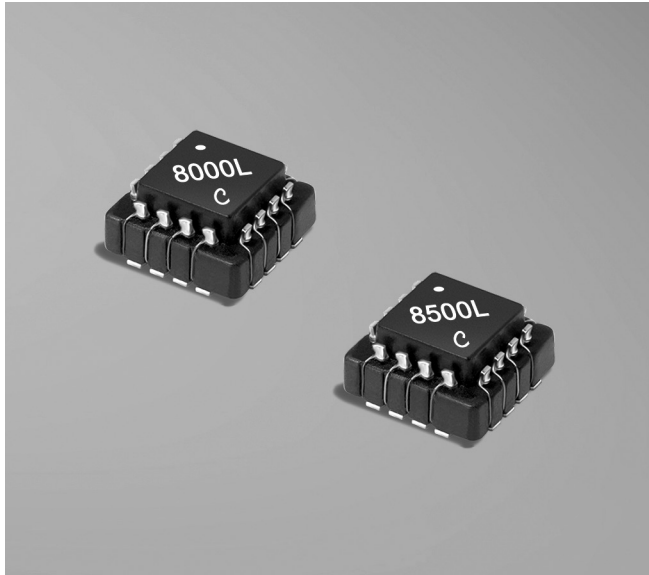


# SMT Data Line EMI Filters – CDF



- 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 – 300 Vrms

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over silver-platinum. 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 <sup>1</sup> | Lines | Common mode peak impedance (kOhms) | Cutoff frequency <sup>2</sup> (GHz) | Inductance min (µH) <sup>3</sup> | DCR max <sup>4</sup> (mOhms) | Isolation <sup>5</sup> (Vrms) | Current <sup>6</sup> (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                          |

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

**CDF 8500LD**

**Termination L** = RoHS compliant tin-silver-copper over silver-platinum  
**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).

**B** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

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

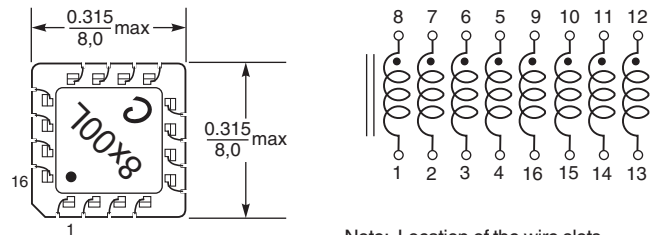
3. Inductance shown for each winding, measured at 1 MHz

4. DCR is for each winding.

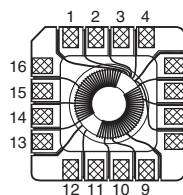
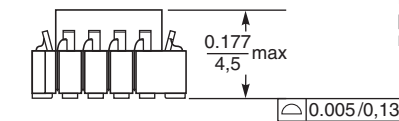
5. Interwinding isolation (hipot) tested for one minute.

6. Current rating is for each line.

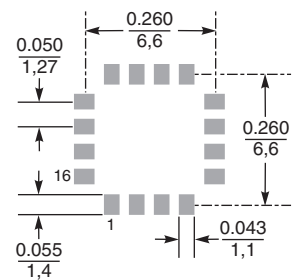
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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



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

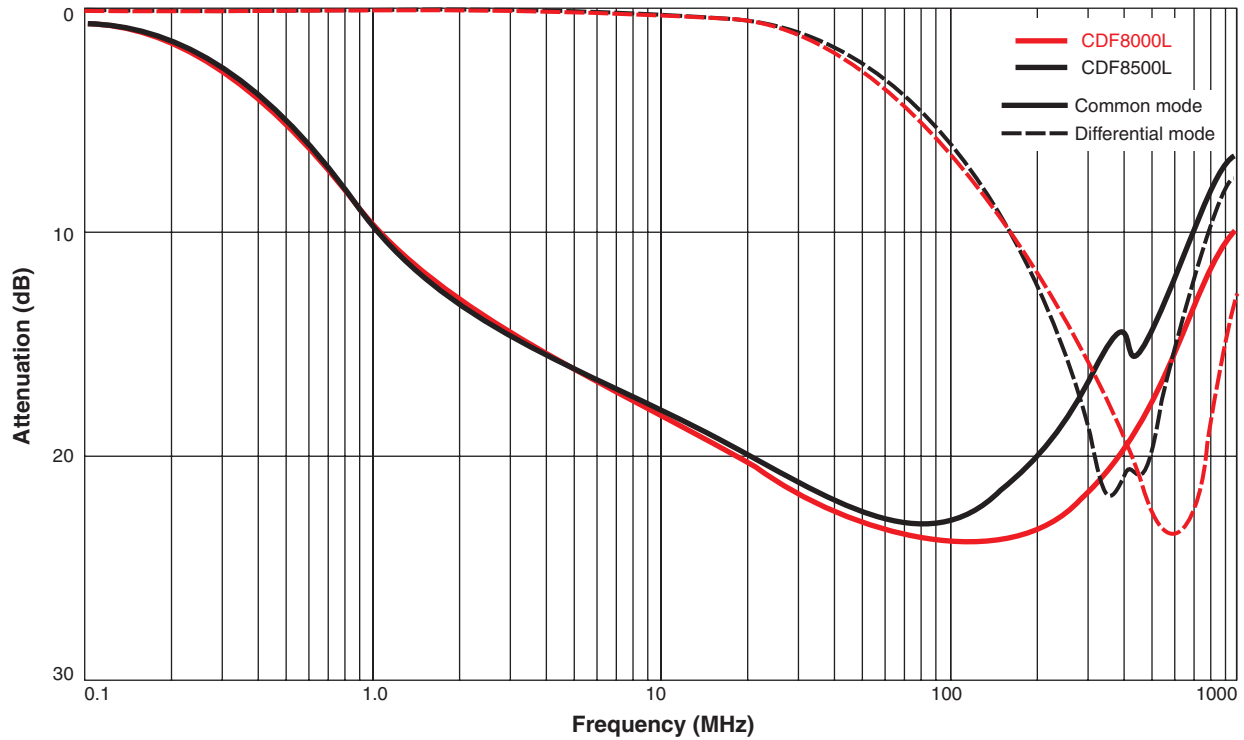


**Recommended Land Pattern**

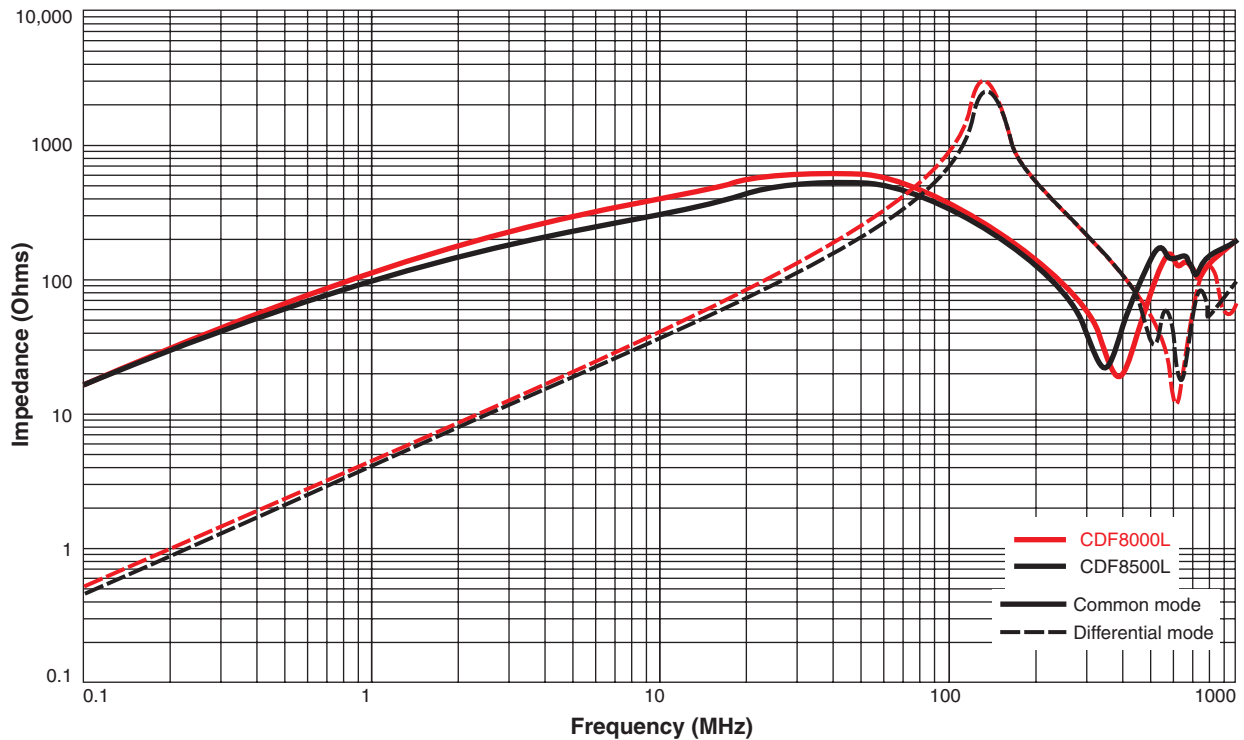


# CDF8x00 Surface Mount Data Line EMI Filters

Attenuation (Ref: 50 Ohms)



## Impedance vs Frequency



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