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 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.

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

<table>
<thead>
<tr>
<th>Part number___</th>
<th>Lines</th>
<th>Common mode peak impedance (kOhms)</th>
<th>Cutoff frequency (GHz)</th>
<th>Inductance min (µH)___</th>
<th>DCR max____ (mOhms)</th>
<th>Isolation____ (Vrms)</th>
<th>Current____ (mAdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDF8000L___</td>
<td>8</td>
<td>0.63 @ 37 MHz</td>
<td>0.053</td>
<td>5.0</td>
<td>250</td>
<td>300</td>
<td>100</td>
</tr>
<tr>
<td>CDF8500L___</td>
<td>8</td>
<td>0.52 @ 42 MHz</td>
<td>0.053</td>
<td>5.0</td>
<td>180</td>
<td>300</td>
<td>500</td>
</tr>
</tbody>
</table>

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

   - 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).
   - 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. Intervinding isolation (hipot) tested for one minute.
6. Current rating is for each line.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Dimensions are in inches mm

Recommended Land Pattern
CDF8x00 Surface Mount Data Line EMI Filters

Attenuation (Ref: 50 Ohms)

Impedance vs Frequency