# SMT Data Line EMI Filters  DFT4532

- Current-compensated ring core double choke
- Miniature footprint; less than 3.2 mm tall
- Exceptional common mode noise attenuation
- AEC-Q200 Grade 3 (–40°C to +85°C)
- 250 Vrms, one minute isolation (hipot) between windings

## Specifications
- **Part number**
- **Common mode impedance max (kOhms)**
- **Cutoff frequency (MHz)**
- **Inductance \(^3\) (mH)**
- **Test frequency (kHz)**
- **Irms \(^4\) (mA)**
- **DCR (Ohms) \(^5\)**
- **Leakage inductance max (µH)**
- **Value**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Common mode impedance max (kOhms)</th>
<th>Cutoff frequency (MHz)</th>
<th>Inductance (^3) (mH) nom/min</th>
<th>Test frequency (kHz)</th>
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<th>Leakage inductance max (µH)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>DFT4532-513BL</td>
<td>2.01 @ 61 MHz</td>
<td>670</td>
<td>0.051 0.0357</td>
<td>100</td>
<td>370 250 320</td>
<td>0.100 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFT4532-513SL</td>
<td>1.92 @ 99 MHz</td>
<td>28</td>
<td>0.051 0.0357</td>
<td>100</td>
<td>370 250 320</td>
<td>1.600 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFT4532-104BL</td>
<td>0.64 @ 9.7 MHz</td>
<td>900</td>
<td>0.100 0.070</td>
<td>100</td>
<td>500 150 200</td>
<td>0.070 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFT4532-224BL</td>
<td>1.40 @ 13 MHz</td>
<td>650</td>
<td>0.220 0.154</td>
<td>100</td>
<td>400 200 270</td>
<td>0.080 2</td>
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<td></td>
</tr>
<tr>
<td>DFT4532-334BL</td>
<td>1.96 @ 9.6 MHz</td>
<td>520</td>
<td>0.330 0.231</td>
<td>100</td>
<td>370 250 320</td>
<td>0.100 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFT4532-474BL</td>
<td>3.04 @ 9.6 MHz</td>
<td>490</td>
<td>0.470 0.329</td>
<td>100</td>
<td>350 320 380</td>
<td>0.130 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Termination</th>
<th>L = RoHS compliant matte tin over nickel over phos-bronze</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special order, add cost</td>
<td>S = non-RoHS tin-lead (63/37)</td>
</tr>
</tbody>
</table>

**Packaging:**

- C = 7” machine-ready reel. EIA-481 embossed plastic tape (600 parts per reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge)
- D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2000 parts per full reel).

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

3. Inductance is for each winding, measured at test frequency using a Voltech AT3600 or equivalent.


5. DCR is specified per winding.

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

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**Core material**

- Ferrite

**Environmental**

- RoHS compliant

**Terminations**

- RoHS compliant matte tin over nickel over phos-bronze

**Weight**

- 78 – 86 mg

**Ambient temperature**

- –40°C to +85°C with Irms current

**Maximum part temperature**

- +105°C (ambient + temp rise)

**Storage temperature**

- Component: –40°C to +105°C.
- Tape and reel packaging: –40°C to +80°C

**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

**Packaging**

- 600/7” reel; 2000/13” reel
- Plastic tape: 12 mm wide, 0.4 mm thick, 8 mm pocket spacing, 3.43 mm pocket depth

**PCB washing**

- Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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**Core**

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**Dimensions**

- Diameter: Ø0.113 ±0.005, 2.885 ±0.115
- Height: 0.095 ±0.020
- Recommended Land Pattern

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**Contact Information**

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**Document**

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**Note:**

- 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.
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Attenuation vs Frequency

Differential Mode

![Differential Mode Attenuation vs Frequency Graph]

Common Mode

![Common Mode Attenuation vs Frequency Graph]
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Impedance vs Frequency

Differential Mode

Common Mode