Shielded Coupled Inductor

For TI’s LM5160 Dual Output Fly-Buck™ Reference Design

- Published as TA7848-AE on TI’s LM5160 Dual Output Non-Isolated Fly-Buck™ Reference Design, PMP10733
- Low leakage inductance and DCR; excellent current handling
- Based on the Coilcraft LPH miniature inductor series. Contact Coilcraft for other turns ratios.

**Core material** Ferrite  
**Environmental** RoHS compliant, halogen free  
**Terminations** RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.

- **Weight** 850 mg  
- **Ambient temperature** –40°C to +85°C  
- **Maximum part temperature** +125°C (ambient + temp rise)  
- **Storage temperature** Component: –40°C to +125°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 to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

**Part number**: TA7848-AE  
**Packaging**

- **C** = 7” machine-ready reel. EIA-481 embossed plastic tape (250 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. Factory order only, not stocked (1000 parts per full reel).

1. When ordering, please specify **packaging** code: TA7848-AE-

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns ratio pri : sec</th>
<th>Inductance (µH) min max</th>
<th>DCR max (Ohms) pri sec</th>
<th>Leakage inductance max (µH)</th>
<th>Isolation min (Vrms / Vdc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA7848-AE</td>
<td>1 : 1.05</td>
<td>16.0 24.0</td>
<td>0.1835 0.300</td>
<td>0.82</td>
<td>1000 / 1500</td>
</tr>
</tbody>
</table>

1. Inductance is for the primary, measured at 100 kHz, 0.1 Vrms, 0 Adc, with the windings connected in parallel.  
2. DCR for the primary is measured with the windings connected in parallel.  
3. Leakage inductance is for the primary winding, measured with the secondary winding shorted.  
4. Isolation (hipot) is measured from primary to secondary for one minute.  
5. Electrical specifications at 25°C.

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L vs Current

Dimensions are in inches

Packaging 250/7” reel; 1000/13” reel; Plastic tape: 16 mm wide, 0.28 mm thick, 12 mm pocket spacing, 4.95 mm pocket depth

Recommended pick and place nozzle OD: 8 mm; ID: 4 mm