# Shielded Coupled Inductor

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

### Core Material
- Ferrite

### Environmental
- RoHS compliant, halogen free
- Termination: 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.

### 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.

## Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns ratio pri : sec</th>
<th>Inductance (µH)²</th>
<th>DCR max (Ohms)³</th>
<th>Leakage Inductance⁴</th>
<th>Isolation⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPH8045-223MED</td>
<td>1 : 1.05</td>
<td>16.0 min</td>
<td>24.0 max</td>
<td>0.1835 pri</td>
<td>0.300 sec</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:
   - LPH8045-223MED

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

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### Diagram

Primary windings to be connected in parallel on the PC board.

1. Primary (L1)
2. Secondary (L2)
3. 1
4. 4
5. 2
6. 6

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LPHR8045-223 Shielded Coupled Inductor

L vs Current

Primary Inductance (µH) vs Current (A)

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

Dimensions are in inches/mm

RoHS Compliant
Halogen Free

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