**Coupled Inductor – UA7868-AE**

- Developed for use in Intel’s 3rd Gen 3D RealSense camera.
- 1 : 11 turns ratio

**Core material** Ferrite  
**Weight** 52 mg  
**Environmental** RoHS compliant, halogen free  
**Terminations** RoHS compliant silver-palladium-platinum-glass frit.  
**Ambient temperature** –40°C to +85°C with Irms current, +85°C to +125°C with derated current  
**Storage temperature** Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C  
**Winding to winding isolation** 300 Vrms  
**Resistance to soldering heat** Max three 40 second reflo ws 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  
**Packaging** 1000/7” reel; 3500/13” reel Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth  
**Recommended pick and place nozzle** OD: 3 mm; ID: ≤1.5 mm  
**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance² ± 20% (µH)</th>
<th>Turns ratio</th>
<th>DCR max (Ohms)</th>
<th>SRF typ³ (MHz)</th>
<th>Coupling coefficient typ</th>
<th>Volt-time product⁴ (V-µsec)</th>
<th>Isat⁵ (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA7868-AE_</td>
<td>2.9</td>
<td>1:11</td>
<td>1.6 17.8</td>
<td>6.3</td>
<td>&gt;0.98</td>
<td>1.97</td>
<td>0.68</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:  
**UA7868-AEC**  
**Packaging:**  
- **C** = 7” 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.  
- **D** = 13” machine-ready reel, EIA-481 embossed plastic tape. Factory order only, not stocked (3500 parts per full reel).

2. Inductance is for the primary (L1), measured at 100 kHz, 0.1 Vrms, 0 A dc on an Agilent/HP 4284A LCR meter or equivalent.  
3. SRF measured using an Agilent/HP 4191A or equivalent.  
4. Volt-time product is calculated as Inductance × Isat.  
5. DC current applied to L1, at which the inductance drops 10% from its value without current.  
6. Electrical specifications at 25°C.  
7. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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**Dimensions are in** inches mm  
0.039 0.99  
0.055 ±0.004 1.41.0  
0.022 0.54  
0.094 0.040 2.38 1.02  
0.130 3.30

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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.
NEW!
Coupled Inductor – UA7868-AE

L vs Current

![Graph showing Inductance vs Current]

L vs Frequency

![Graph showing Inductance vs Frequency]

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