Wideband RF Transformers

- Surface mount and through hole versions
- 500 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating.
- For a smaller package size, see our PWB Series

**Core material** Ferrite

**Terminations** RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 0.37 – 0.39 g

**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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**
60 per billion hours / 16,666,667 hours, calculated per Telcordia SR-332

**Packaging** (SM version): 500 per 13” reel:
- Plastic tape: 24 mm wide, 0.42 mm thick, 20 mm pocket spacing, 6.6 mm pocket depth;
- (TH version): 70 per tube

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

### Schematic Through-hole Surface mount

<table>
<thead>
<tr>
<th>Part number</th>
<th>Impedance ratio² pri: sec</th>
<th>Iₜₚₖ max (mA)</th>
<th>Frequency (MHz)</th>
<th>Pri (pins 1–3) Lₘₚₖ (µH)</th>
<th>DCR max (Ohms)</th>
<th>Sec (pins 6–4) Lₘₚₖ (µH)</th>
<th>DCR max (Ohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB1010-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.005 – 100</td>
<td>780</td>
<td>0.320</td>
<td>780</td>
<td>0.320</td>
</tr>
<tr>
<td>WB1010-1-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.04 – 175</td>
<td>95</td>
<td>0.200</td>
<td>95</td>
<td>0.200</td>
</tr>
<tr>
<td>WB1015-PCL</td>
<td>1.5 : 1</td>
<td>250</td>
<td>0.1 – 150</td>
<td>80</td>
<td>0.145</td>
<td>51</td>
<td>0.130</td>
</tr>
<tr>
<td>WB1040-PCL</td>
<td>4 : 1</td>
<td>250</td>
<td>0.2 – 300</td>
<td>95</td>
<td>0.160</td>
<td>25</td>
<td>0.115</td>
</tr>
<tr>
<td>WB2010-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.005 – 100</td>
<td>780</td>
<td>0.320</td>
<td>780</td>
<td>0.320</td>
</tr>
<tr>
<td>WB2010-1-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.04 – 175</td>
<td>95</td>
<td>0.200</td>
<td>95</td>
<td>0.200</td>
</tr>
<tr>
<td>WB2040-PCL</td>
<td>4 : 1</td>
<td>250</td>
<td>0.2 – 300</td>
<td>95</td>
<td>0.160</td>
<td>25</td>
<td>0.115</td>
</tr>
<tr>
<td>WB3010-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.005 – 100</td>
<td>780</td>
<td>0.320</td>
<td>780</td>
<td>0.320</td>
</tr>
<tr>
<td>WB3010-1-PCL</td>
<td>1 : 1</td>
<td>250</td>
<td>0.04 – 175</td>
<td>95</td>
<td>0.200</td>
<td>95</td>
<td>0.200</td>
</tr>
<tr>
<td>WB3015-PCL</td>
<td>1.5 : 1</td>
<td>250</td>
<td>0.1 – 150</td>
<td>80</td>
<td>0.145</td>
<td>51</td>
<td>0.130</td>
</tr>
<tr>
<td>WB3040-PCL</td>
<td>4 : 1</td>
<td>250</td>
<td>0.2 – 300</td>
<td>95</td>
<td>0.160</td>
<td>25</td>
<td>0.115</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a packaging code:

**WB3040-SML**

**Packaging:**
- D = 13” machine ready reel. EIA-481 embossed plastic tape (500 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. Impedance ratio is for the full primary winding to the full secondary winding.
3. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.
4. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

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

Typical Attenuation vs Current

Typical Frequency Response

Attenuation measured on a network analyzer (re: 50 Ohms)