



SMT Mini Ultra-Wideband Transformers UWB



- 3 dB bandwidth: 1 MHz to 8.5 GHz
- 1/4 Watt RF input power
- 250 mA max current rating
- AEC-Q200 Grade 1 (−40°C to +125°C)

Core material Ferrite

Environment RoHS compliant, halogen free

Terminations RoHS compliant tin-silver-copper over silver-platinum-glass frit. Other terminations available at additional cost.

Weight 85 – 105 mg

Ambient temperature −40°C to +125°C

Maximum part temperature +140°C

Storage temperature Component: −40°C to +140°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)

Packaging 750/7" reel; 2500/13" reel; Plastic tape: 12 mm wide, 0.4 mm thick, 8 mm pocket spacing, 3.05 mm pocket depth

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

Part number ¹	Impedance ratio pri:sec	Bandwidth (MHz)	Insertion loss max (dB)	L min ² (μH)	DCR max ³ (mOhm)
UWB1-85E_	1:1	1 – 8500	1.50	3.6	45
UWB2-50E_	1:2	0.5 – 5000	1.50	7.5	71
UWB4-45E_	1:4	0.5 – 4500	1.30	7.5	71

1. When ordering, please specify **packaging** code:

↓
UWB4-45EC

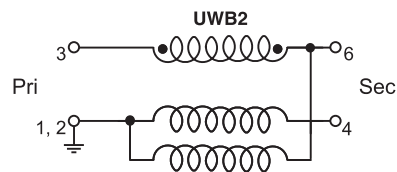
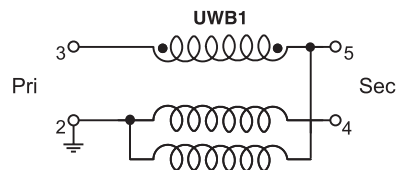
Termination: **E** = RoHS compliant tin-silver-copper over silver-platinum-glass frit.
Special order: **S** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (750 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

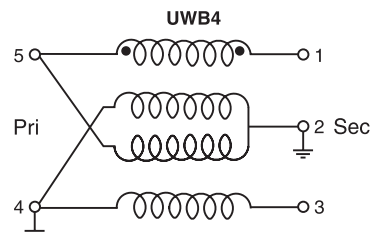
D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2500 parts per full reel).

- Inductance measured per winding at 100 KHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.
- DCR measured per winding on a micro-ohmmeter.
- Electrical specifications at 25°C. Measurements are referenced to 50 Ohms. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Schematics

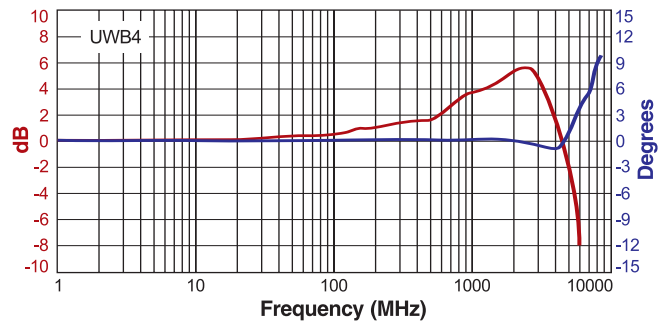
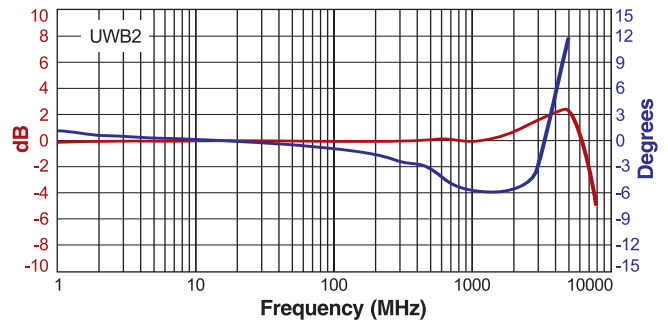
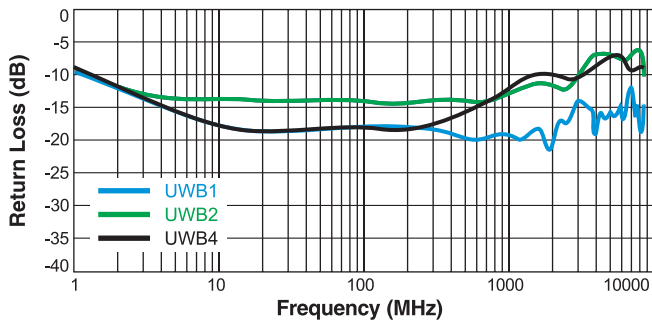
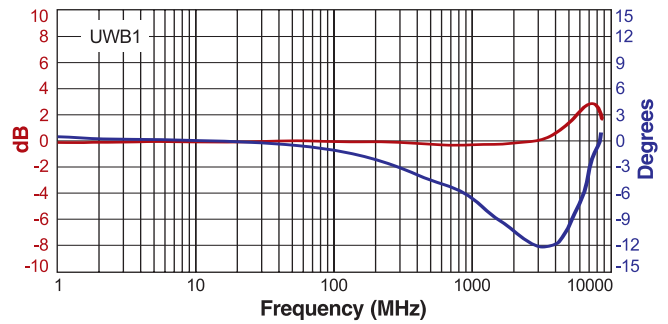
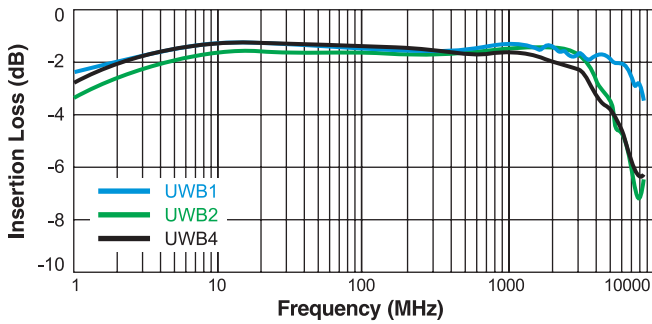


Connect pins 1 and 2 to PC board





SMT Mini Ultra-Wideband Transformer – UWB



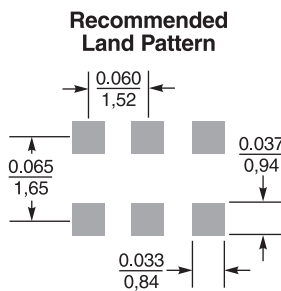
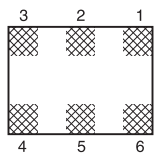
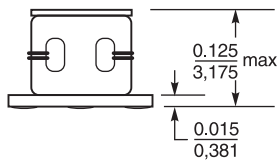
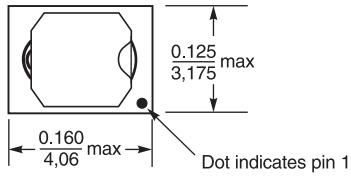
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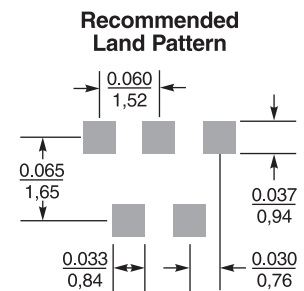
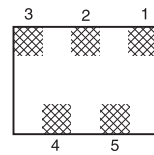
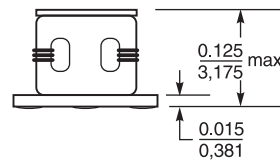
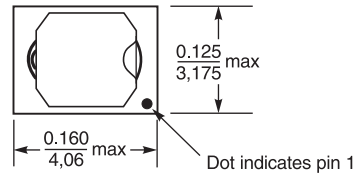


SMT Mini Ultra-Wideband Transformer – UWB

Dimensions – UWB1, UWB2



Dimensions – UWB4



Dimensions are in $\frac{\text{inches}}{\text{mm}}$