



# 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 <sup>1</sup>	Impedance ratio pri:sec	Bandwidth (MHz)	Insertion loss max (dB)	L min <sup>2</sup> (µH)	DCR max <sup>3</sup> (mOhm)
UWB1-85E_4	1:1	1 – 8500	1.50	3.6	45
UWB2-50E_4	1:2	0.5 – 5000	1.50	7.5	71
UWB4-45E_4	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).

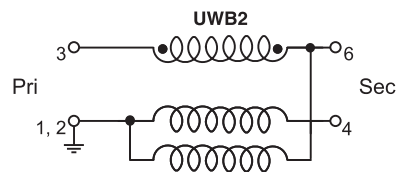
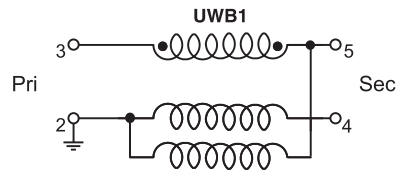
2. Inductance measured per winding at 1 MHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.

3. DCR measured per winding on a micro-ohmmeter.

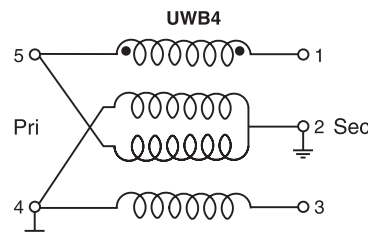
4. AEC qualification due for completion Q2 2021.

5. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Schematics

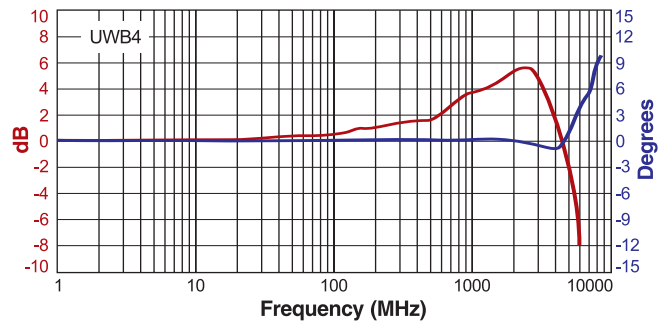
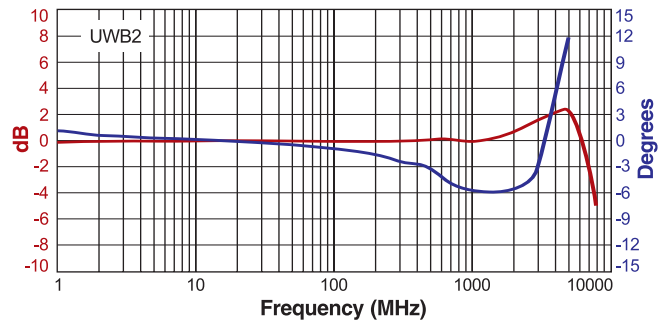
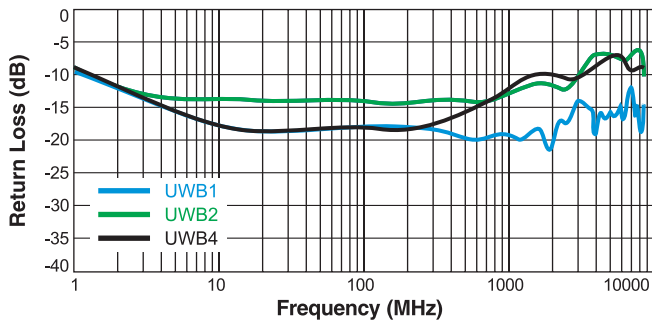
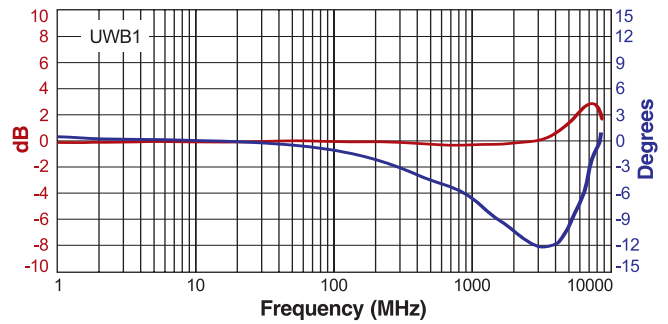
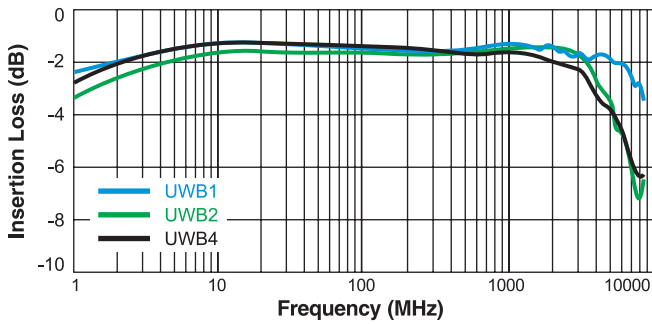


Connect pins 1 and 2 to PC board





# SMT Mini Ultra-Wideband Transformer – UWB



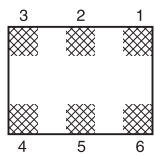
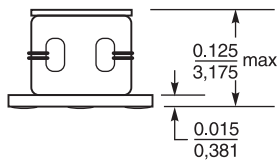
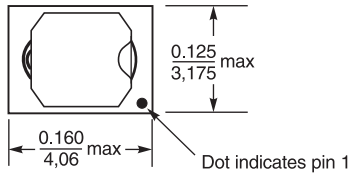
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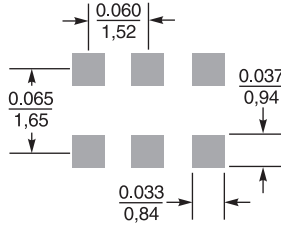
# SMT Mini Ultra-Wideband Transformer – UWB

## Dimensions – UWB1, UWB2

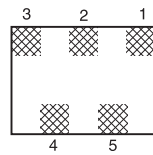
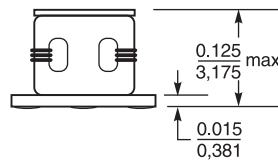
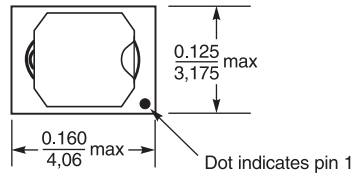


Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

### Recommended Land Pattern



## Dimensions – UWB4



### Recommended Land Pattern

