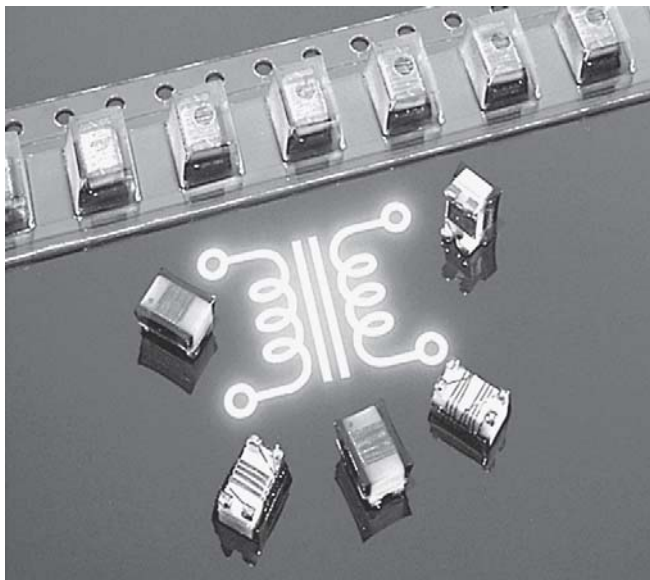




# Surface Mount Wideband RF Transformers



Available in a variety of impedance versions, Coilcraft's WBT Series chip transformers provide wide band pass performance in a small surface mount package.

The transformers are built on an 1812 size ferrite body with a ceramic base. They feature 50 V isolation and a 1/4 Watt RF input power rating. The top is a high temperature material that creates a flat surface for auto insertion. The parts are packaged in tape and reel for easy dispensing.

Applications include impedance matching, voltage or current transformation, DC isolation, balanced/unbalanced mixing, matching, power splitting, coupling and signal inversion.

To request free evaluation samples, contact Coilcraft or visit [www.coilcraft.com](http://www.coilcraft.com).

## 1:1 Transformers

Part number <sup>1</sup>	Inductance <sup>2</sup> (μH)	Test frequency (MHz)	Imp. ratio pri : sec	DCR max (Ohms)	I <sub>DC</sub> (mA)	Isolation (Vrms)	Insertion loss (dB)	Bandwidth (MHz)	Color dot
1812WBT-1L_	14	10	1 : 1	4.8	200	50	<1	0.340-22	Yellow
1812WBT-2L_	5.3	10	1 : 1	1.8	400	50	<1	0.800-60	Green
1812WBT-3L_	1.25	50	1 : 1	0.7	500	50	<1	4-200	White
1812WBT-4L_	0.220	50	1 : 1	0.3	700	50	<1	11-480	Orange
1812WBT-5L_	0.090	50	1 : 1	0.15	700	50	<1.5	48-645	Red

## 1.5:1 Transformers

Part number <sup>1</sup>	Inductance (μH) <sup>2</sup>		Test freq. (MHz)	Imp. ratio pri : sec	DCR max (Ω)		I <sub>DC</sub> (mA)	Isolation (Vrms)	Insertion loss (dB)	Bandwidth (MHz)	Color dot
	pri	sec			pri	sec					
1812WBT1.5-1L_	5.0	3.3	10	1.5 : 1	1.05	0.87	400	50	0.5	1.3-100	Red
1812WBT1.5-2L_	2.5	1.6	10	1.5 : 1	0.74	0.58	500	50	0.5	2.75-135	Orange
1812WBT1.5-3L_	1.0	0.6	10	1.5 : 1	0.43	0.34	500	50	0.75	7.2-200	Yellow
1812WBT1.5-4L_	0.144	0.090	10	1.5 : 1	0.18	0.14	700	50	2.25	38-535	Green

## 2:1 Transformers

Part number <sup>1</sup>	Inductance (μH) <sup>2</sup>		Test freq. (MHz)	Imp. ratio pri : sec	DCR max (Ω)		I <sub>DC</sub> (mA)	Isolation (Vrms)	Insertion loss (dB)	Bandwidth (MHz)	Color dot
	pri	sec			pri	sec					
1812WBT2-1L_	13.80	6.90	10	2 : 1	4.6	3.2	200	50	<1.5	0.800-23	Brown
1812WBT2-2L_	5.850	2.925	10	2 : 1	1.25	0.95	400	50	<1.5	2.2-65	Red
1812WBT2-3L_	2.60	1.30	10	2 : 1	0.52	0.42	600	50	<1.5	4-105	Orange
1812WBT2-4L_	0.910	0.455	50	2 : 1	0.27	0.23	700	50	<1.5	11-200	Yellow

1. When ordering, please specify **termination** and **packaging** codes:

1812WBT1.5-4L C

**Termination:** L = RoHS compliant gold over nickel over moly-manganese  
Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).

**Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (600 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 C instead.  
D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 parts per full reel).

2. Inductance is per winding

3. Operating temperature range -40°C to +85°C.

4. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

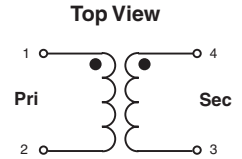
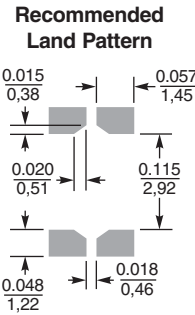
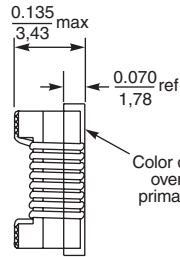
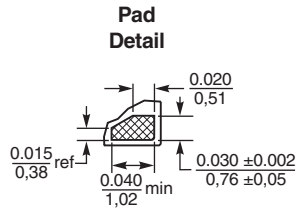
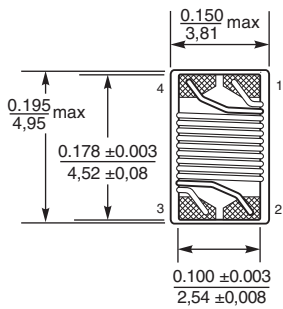
**Coilcraft**<sup>®</sup>

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Please check our website for latest information.

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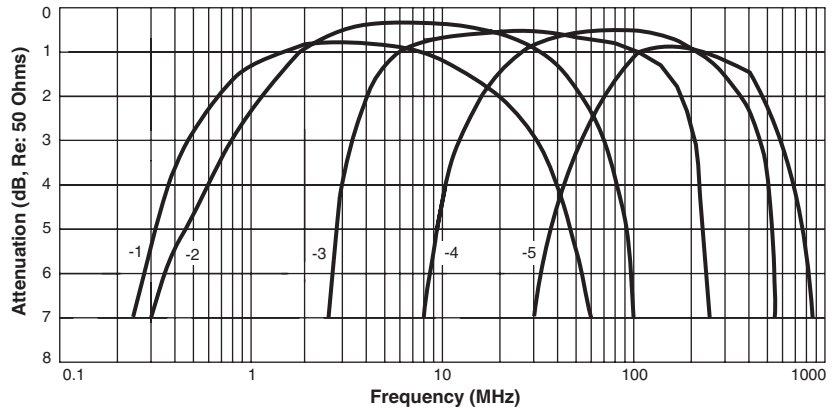
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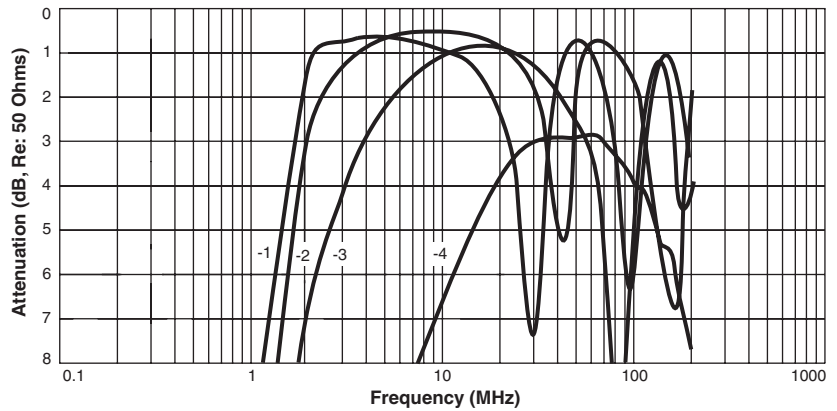


**Weight:** 131 – 152 mg  
**Tape and reel:** 600/7" reel; 2200/13" reel 12 mm tape width  
 For packaging data see Tape and Reel Specifications section.

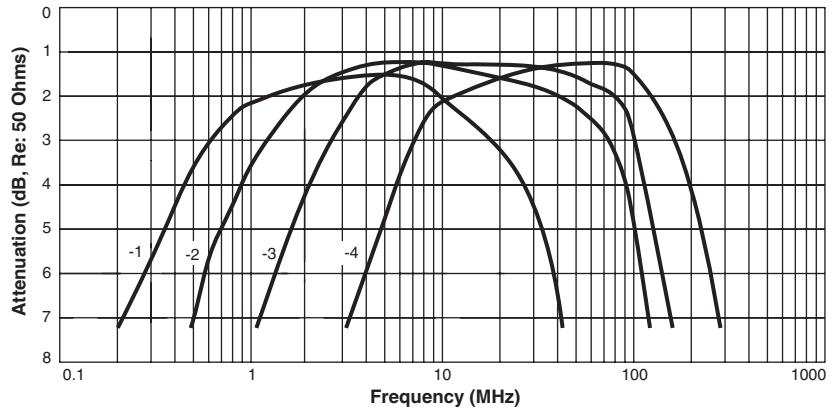
### Typical Frequency Attenuation 1:1 Transformers



### Typical Frequency Attenuation 1.5:1 Transformers



### Typical Frequency Attenuation 2:1 Transformers



Measured on a network analyzer (re: 50 Ohms)



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 Please check our website for latest information. Document 117-2 Revised 01/26/05