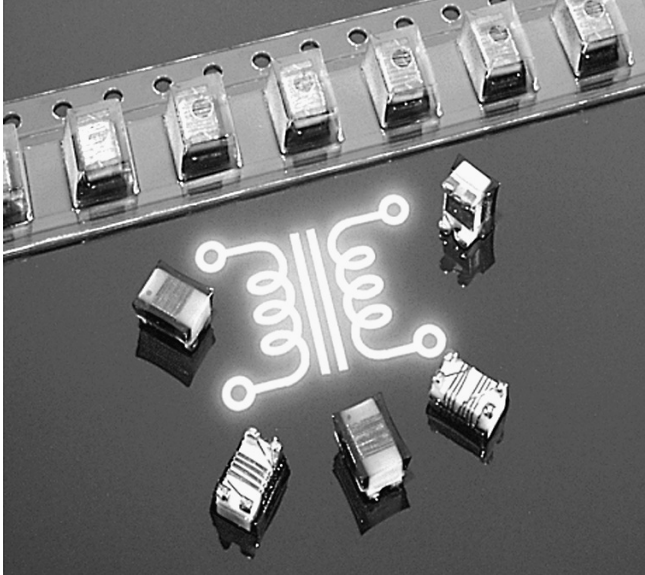




# Surface Mount Wideband RF Transformers



- Provides wide band pass performance in a small SMT package.
- 1812 size ferrite body with a ceramic base.
- 50 V isolation, 1/4 Watt RF input power

**Core material** Ferrite

**Terminations** RoHS compliant gold over nickel over moly-manganese. Other terminations available at additional cost.

**Weight** 131 – 152 mg

**Ambient temperature** –40°C to +85°C with Irms current

**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)

**Packaging** 600/7" reel; 2200/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.7 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCBt\\_Washing.pdf](#).

## 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
	pri	sec			pri	sec					
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	0.60	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:

1812WBT1.5-4LC

**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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

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

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com

**UK** +44-1236-730595 sales@coilcraft-europe.com

**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw

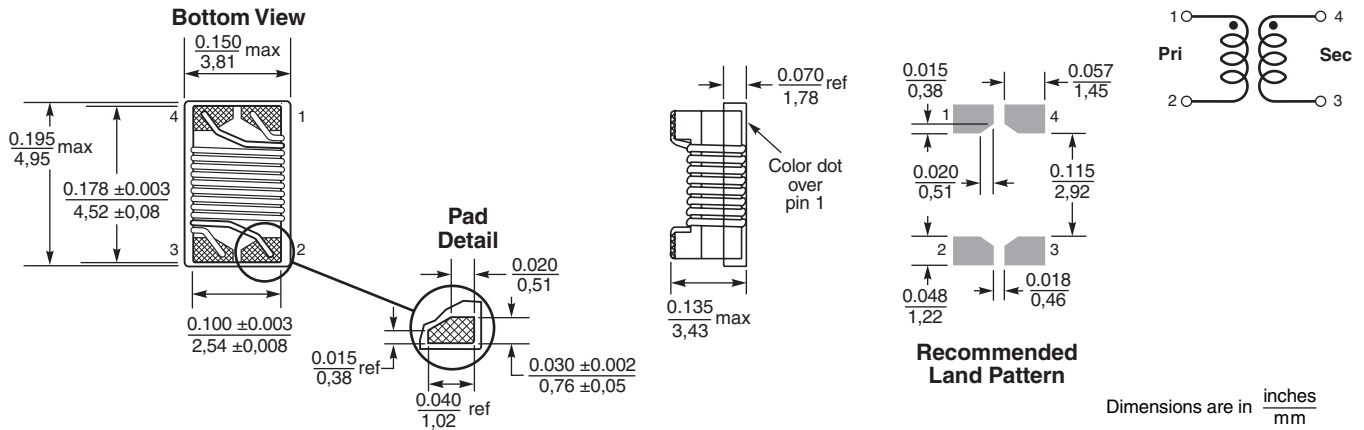
**China** +86-21-6218 8074 sales@coilcraft.com.cn

**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

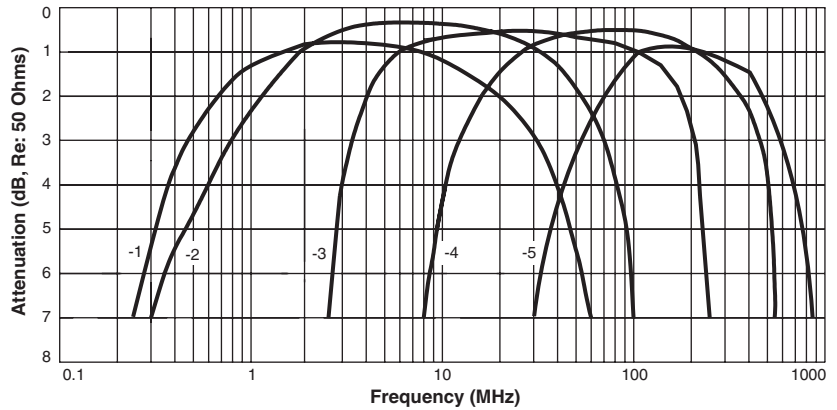
Document 117E-1 Revised 12/02/21

© Coilcraft Inc. 2021

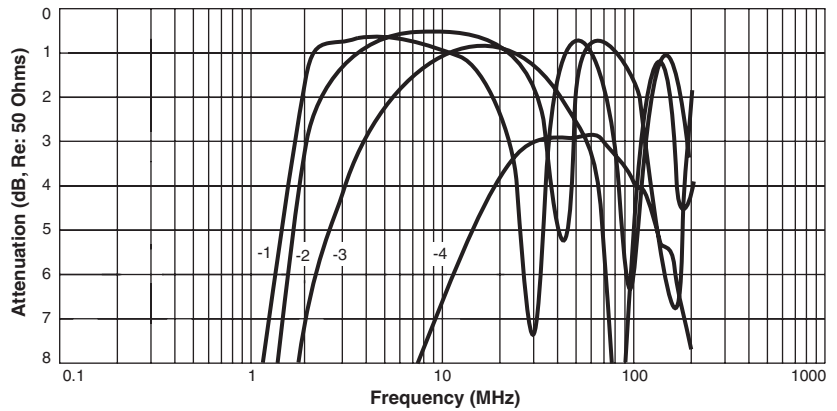
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



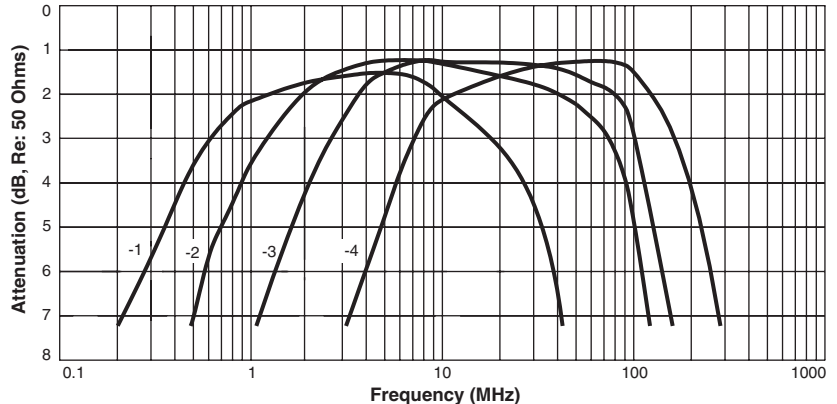
### Typical Frequency Attenuation 1:1 Transformers



### Typical Frequency Attenuation 1.5:1 Transformers



### Typical Frequency Attenuation 2:1 Transformers



Measured on a network analyzer (re: 50 Ohms)



**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 117-2 Revised 12/02/21

© Coilcraft Inc. 2021

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.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Coilcraft:

[1812WBT2-3LC](#) [1812WBT2-2LC](#) [1812WBT2-4LB](#) [1812WBT-4LB](#) [1812WBT1.5-2LC](#) [1812WBT1.5-3LB](#)  
[1812WBT1.5-2LB](#) [1812WBT1.5-4LC](#) [1812WBT-1LB](#) [1812WBT2-1LC](#) [1812WBT1.5-1LC](#) [1812WBT-4LC](#) [1812WBT2-](#)  
[4LC](#) [1812WBT-5LC](#) [1812WBT2-1LB](#) [1812WBT-5LB](#) [1812WBT1.5-3LC](#) [1812WBT-3LC](#) [1812WBT1.5-1LB](#)  
[1812WBT2-3LB](#) [1812WBT-2LB](#) [1812WBT-2LC](#) [1812WBT-3LB](#) [1812WBT2-2LB](#) [1812WBT-1LC](#) [1812WBT1.5-4LB](#)