



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 I_{rms} 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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

One per billion hours / one billion hours, calculated per Telcordia SR-332

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 with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

1:1 Transformers

Part number ¹	Inductance ² (μH)	Test frequency (MHz)	Imp. ratio pri : sec	DCR max (Ohms)	I _{DC} (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 ¹	Inductance (μH) ²		Test freq. (MHz)	Imp. ratio pri : sec	DCR max (Ω)		I _{DC} (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 ¹	Inductance (μH) ²		Test freq. (MHz)	Imp. ratio pri : sec	DCR max (Ω)		I _{DC} (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: **E** = 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. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

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



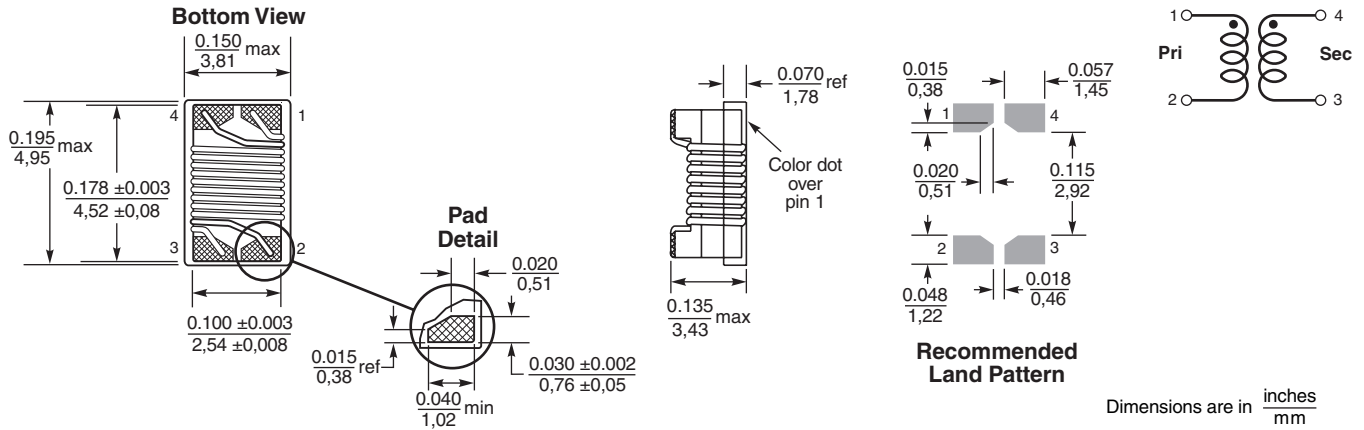
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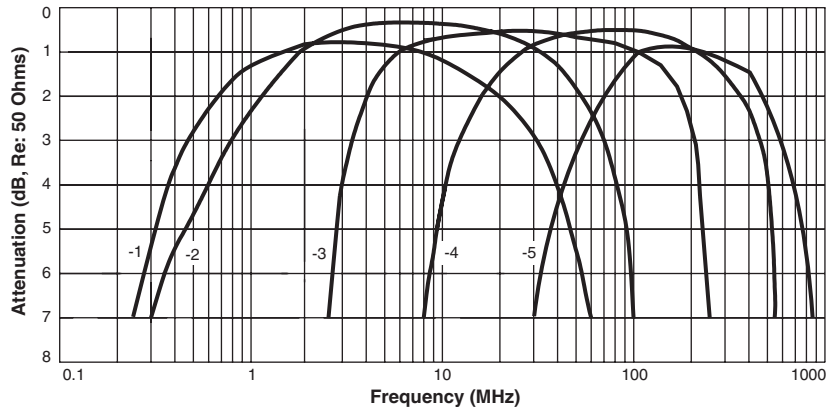
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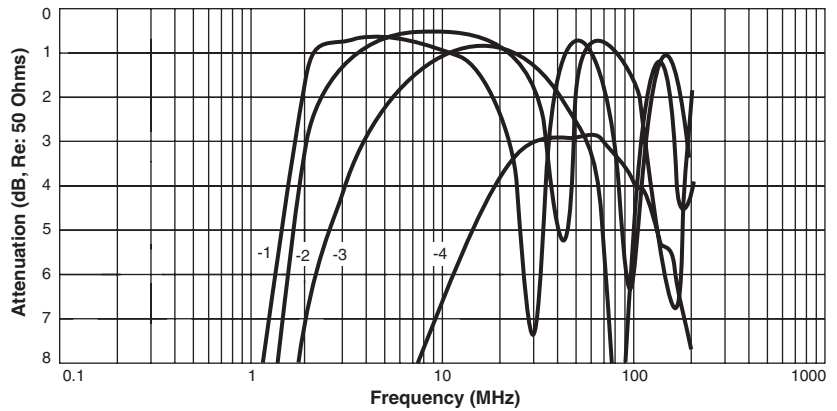
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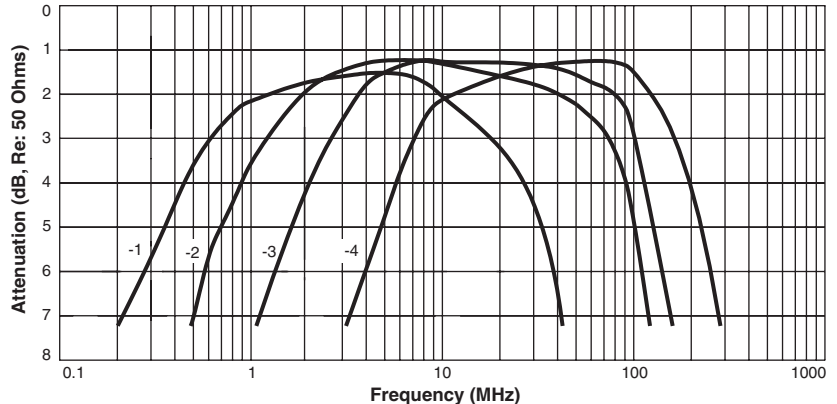
Typical Frequency Attenuation 1:1 Transformers



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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