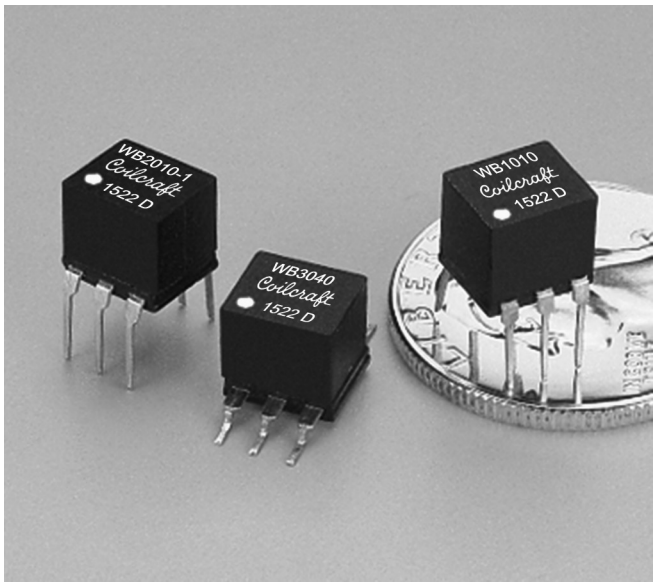
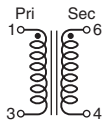
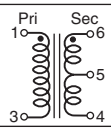
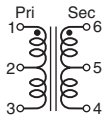
Wideband RF Transformers



- Surface mount and through hole versions
- 500 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating.
- For a smaller package size, see our PWB Series

Core material Ferrite
Terminations RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.
Weight 0.37 – 0.39 g
Ambient temperature –40°C to +85°C
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) 60 per billion hours / 16,666,667 hours, calculated per Telcordia SR-332
Packaging (SM version): 500 per 13″ reel; Plastic tape: 24 mm wide, 0.42 mm thick, 20 mm pocket spacing, 6.6 mm pocket depth; (TH version): 70 per tube
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCBt_Washing.pdf.

Schematic	Part number Through-hole	Part number Surface mount[1]	Impedance ratio[2] pri : sec	I_{DC} max (mA)	Frequency (MHz)	Pri (pins 1-3) L min[3] (µH)	Pri (pins 1-3) DCR max (Ohms)	Sec (pins 6-4) L min[3] (µH)	Sec (pins 6-4) DCR max (Ohms)
	WB1010-PCL	WB1010-SML_	1 : 1	250	0.005–100	780	0.320	780	0.320
	WB1010-1-PCL	WB1010-1-SML_	1 : 1	250	0.04–175	95	0.200	95	0.200
	WB1015-PCL	WB1015-SML_	1.5 : 1	250	0.1–150	80	0.145	51	0.130
	WB1040-PCL	WB1040-SML_	4 : 1	250	0.2–300	95	0.160	25	0.115
	WB2010-PCL	WB2010-SML_	1 : 1	250	0.005–100	780	0.320	780	0.320
	WB2010-1-PCL	WB2010-1-SML_	1 : 1	250	0.04–175	95	0.200	95	0.200
	WB2040-PCL	WB2040-SML_	4 : 1	250	0.2–300	95	0.160	25	0.115
	WB3010-PCL	WB3010-SML_	1 : 1	250	0.005–100	780	0.320	780	0.320
	WB3010-1-PCL	WB3010-1-SML_	1 : 1	250	0.04–175	95	0.200	95	0.200
	WB3015-PCL	WB3015-SML_	1.5 : 1	250	0.1–150	80	0.145	51	0.130
	WB3040-PCL	WB3040-SML_	4 : 1	250	0.2–300	95	0.160	25	0.115

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

WB3040-SMLD

Packaging: **D** = 13″ machine ready reel. EIA-481 embossed plastic tape (500 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 D instead.

2. Impedance ratio is for the full primary winding to the full secondary winding.
3. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.
4. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

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

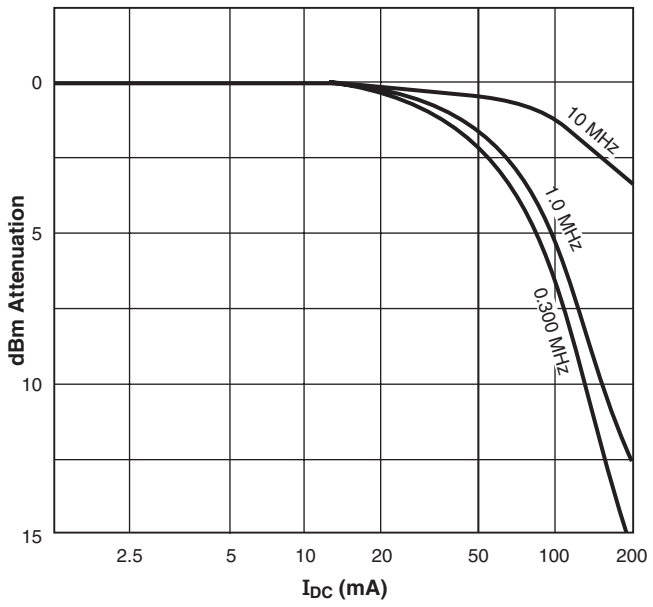
Coilcraft
www.coilcraft.com

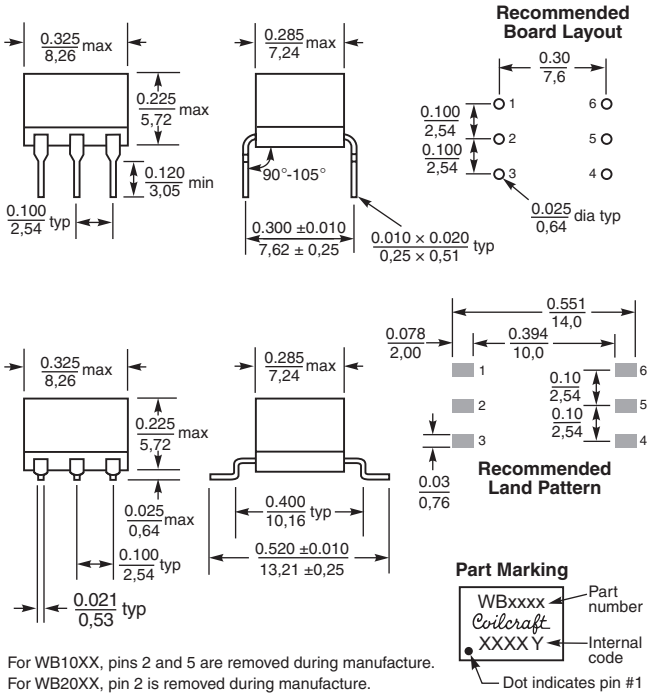
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

© Coilcraft Inc. 2016
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.

Wideband RF Transformers

Typical Attenuation vs Current





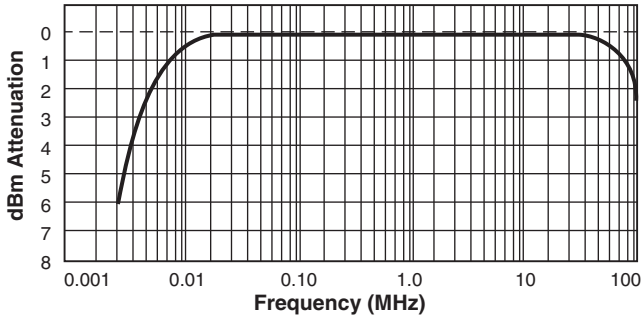
Part Marking

For WB10XX, pins 2 and 5 are removed during manufacture.
For WB20XX, pin 2 is removed during manufacture.

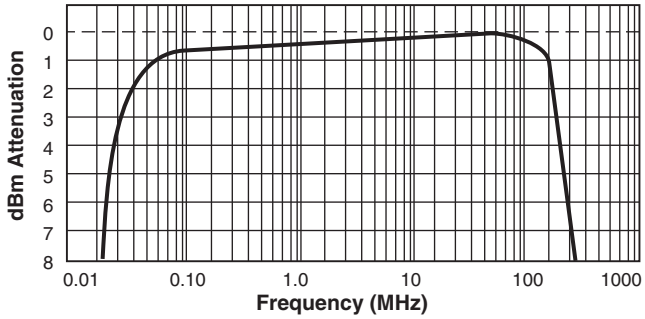
Dimensions are in inches / mm

Typical Frequency Response

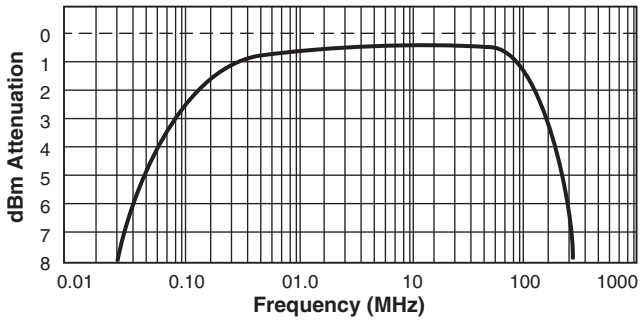
WB1010, WB2010, WB3010
3 dB bandwidth 0.005 – 100 MHz



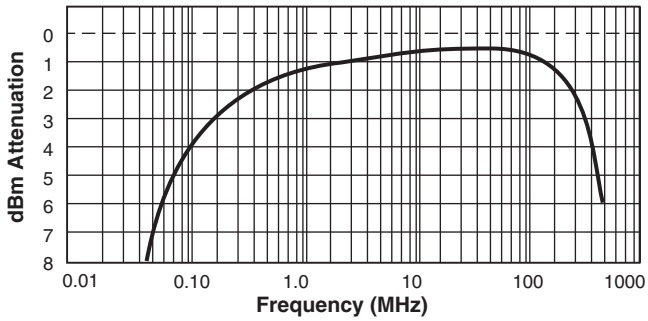
WB1010-1, WB2010-1, WB3010-1
3 dB bandwidth 0.04 – 175 MHz



WB1015, WB3015
3 dB bandwidth 0.1 – 150 MHz



WB1040, WB2040, WB3040
3 dB bandwidth 0.2 – 300 MHz



Attenuation measured on a network analyzer (re: 50 Ohms)

Coilcraft
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 116-2 Revised 08/20/15

© Coilcraft Inc. 2016
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.