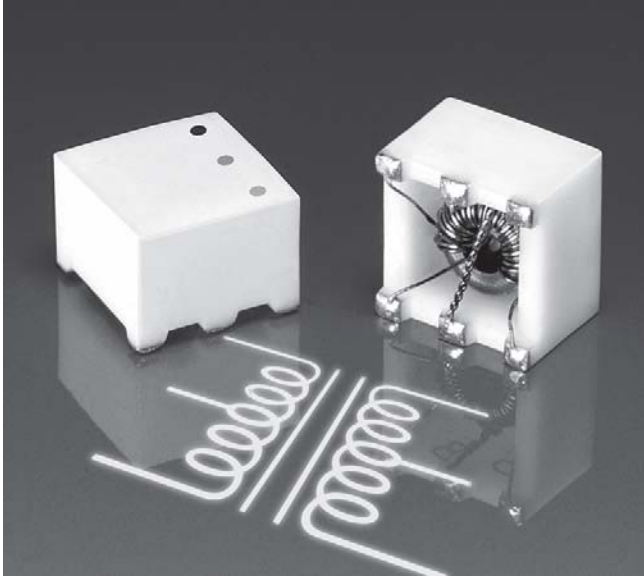




# Surface Mount Wideband RF Transformers



- Tapped and untapped versions
- 400 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating.

**Designer's Kit C329** contains three of each part

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over silver-platinum-glass frit. Other terminations available at additional cost.

**Weight** 0.37 – 0.43 g

**Ambient temperature** –40°C to +85°C

**Storage temperature** Component: –40°C to +85°C.

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)

**Mean Time Between Failures (MTBF)** 16,666,667 hours

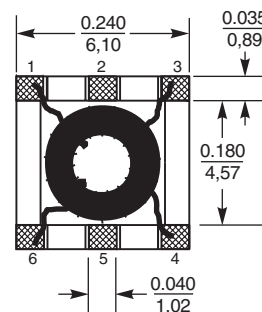
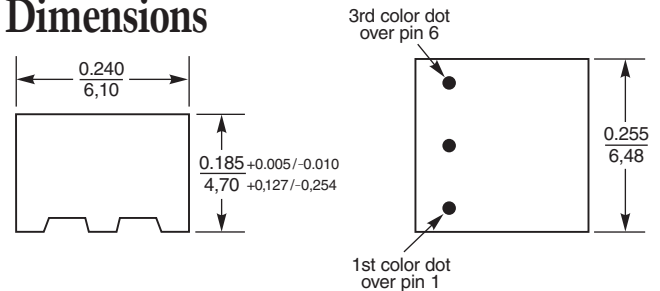
**Packaging** 1000 per 13" reel; Plastic tape: 16 mm wide, 0.34 mm thick, 12 mm pocket spacing, 4.83 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

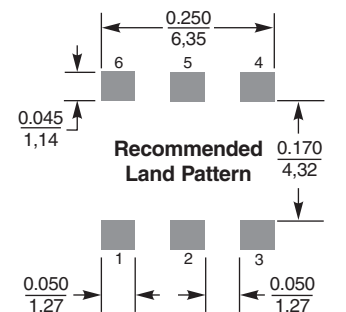
## Typical Frequency Response

Part number	3 dB (MHz)	2 dB (MHz)	1 dB (MHz)
TTWB-1-AL_	0.08 - 450	0.13 - 325	0.30 - 190
TTWB-1.5-AL_	0.03 - 300	0.035 - 250	0.06 - 150
TTWB-2-AL_	0.05 - 200	0.06 - 160	0.10 - 100
TTWB-4-AL_	0.15 - 500	0.24 - 300	0.60 - 140
TTWB-16-AL_	0.05 - 80	0.06 - 75	0.11 - 30
TTWB1010L_	0.0035 - 125	0.0045 - 100	0.007 - 80
TTWB1010-1L_	0.03 - 250	0.04 - 225	0.06 - 200
TTWB1015L_	0.07 - 225	0.10 - 200	0.20 - 125
TTWB1040L_	0.15 - 400	0.25 - 350	0.80 - 250
TTWB-1-BL_	0.13 - 425	0.18 - 325	0.32 - 190
TTWB-1.5-BL_	0.50 - 250	0.80 - 175	1.50 - 120
TTWB-2-BL_	0.20 - 400	0.225 - 275	0.50 - 150
TTWB-4-BL_	0.14 - 700	0.20 - 400	0.40 - 150
TTWB-16-BL_	0.075 - 90	0.11 - 75	0.20 - 65
TTWB2010L_	0.0035 - 125	0.0045 - 100	0.007 - 80
TTWB2010-1L_	0.03 - 250	0.04 - 225	0.06 - 200
TTWB2040L_	0.15 - 400	0.25 - 350	0.80 - 250
TTWB-1-CL_	0.10 - 300	0.13 - 200	0.20 - 150
TTWB-1.5-CL_	0.15 - 200	0.225 - 150	0.35 - 100
TTWB-2-CL_	0.13 - 285	0.20 - 175	0.325 - 125
TTWB-4-CL_	0.14 - 500	0.20 - 230	0.40 - 110
TTWB3010L_	0.0035 - 125	0.0045 - 100	0.007 - 80
TTWB3010-1L_	0.03 - 250	0.04 - 225	0.06 - 200
TTWB3015L_	0.07 - 225	0.10 - 200	0.20 - 125
TTWB3040L_	0.15 - 400	0.25 - 350	0.80 - 250

## Dimensions



Unless otherwise noted, tolerance for all dimensions  $\pm 0.005/0,127$ .



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

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# Surface Mount Wideband RF Transformers

Type	Part number <sup>1</sup>	Impedance ratio <sup>2</sup> pri:sec	Bandwidth (MHz)	Idc (mA)	Insertion loss max (dB)	L min <sup>3</sup> (μH)	Pins 1-3 DCR max (Ohms)	L min <sup>3</sup> (μH)	Pins 6-4 DCR max (Ohms)	Color code
Type A	TTWB-1-AL_	1:1	0.08 - 450	250	0.60	40	0.070	40	0.070	Black Black Green
	TTWB-1.5-AL_	1:1.5	0.03 - 300	250	0.35	110	0.080	160	0.110	Black Brown Green
	TTWB-2-AL_	1:2	0.05 - 200	250	0.25	75	0.088	150	0.120	Black Red Green
	TTWB-4-AL_	1:4	0.15 - 500	250	0.50	25	0.075	98	0.135	Black Yellow Green
	TTWB-16-AL_	1:16	0.05 - 80	250	0.35	75	0.260	1250	0.910	Black Orange Green
	TTWB1010L_	1:1	0.0035 - 125	250	0.20	780	0.320	780	0.320	Black Black Black
	TTWB1010-1L_	1:1	0.03 - 250	250	0.20	95	0.200	95	0.200	Black Black Violet
	TTWB1015L_	1:1.5	0.07 - 225	250	0.40	51	0.130	80	0.145	Black Black Brown
TTWB1040L_	1:4	0.15 - 400	250	0.40	25	0.115	95	0.160	Black Black Yellow	
Type B	TTWB-1-BL_	1:1	0.13 - 425	250	0.40	22	0.070	22	0.070	Brown Black Green
	TTWB-1.5-BL_	1:1.5	0.50 - 250	250	0.40	140	0.100	200	0.120	Brown Brown Green
	TTWB-2-BL_	1:2	0.20 - 400	250	0.35	75	0.088	150	0.130	Brown Red Green
	TTWB-4-BL_	1:4	0.14 - 700	250	0.50	25	0.075	98	0.135	Brown Yellow Green
	TTWB-16-BL_	1:16	0.075 - 90	250	0.30	75	0.260	1250	0.910	Brown Orange Green
	TTWB2010L_	1:1	0.0035 - 125	250	0.20	780	0.320	780	0.320	Brown Black Black
	TTWB2010-1L_	1:1	0.03 - 250	250	0.20	95	0.200	95	0.200	Brown Black Violet
	TTWB2040L_	1:4	0.15 - 400	250	0.40	25	0.115	95	0.160	Brown Black Yellow
Type C	TTWB-1-CL_	1:1	0.10 - 300	250	0.60	22	0.070	22	0.070	Red Black Green
	TTWB-1.5-CL_	1:1.5	0.15 - 200	250	0.30	140	0.110	200	0.120	Red Brown Green
	TTWB-2-CL_	1:2	0.13 - 285	250	0.30	75	0.105	150	0.130	Red Red Green
	TTWB-4-CL_	1:4	0.14 - 500	250	0.50	25	0.075	98	0.135	Red Yellow Green
	TTWB3010L_	1:1	0.0035 - 125	250	0.20	780	0.320	780	0.320	Red Black Black
	TTWB3010-1L_	1:1	0.03 - 250	250	0.20	95	0.200	95	0.200	Red Black Violet
	TTWB3015L_	1:1.5	0.07 - 225	250	0.40	51	0.130	80	0.145	Red Black Brown
	TTWB3040L_	1:4	0.15 - 400	250	0.40	25	0.115	95	0.160	Red Black Yellow

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

TTWB-1-ALD

**Termination:** L = RoHS compliant tin-silver-copper over silver-platinum-glass frit.  
Special order: S = non-RoHS tin-lead (63/37).

**Packaging:** D = 13" machine ready reel. EIA-481 embossed plastic tape, 1000 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 130 kHz, 0.1 Vrms, 0 Adc.

4. Electrical specifications at 25°C.

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

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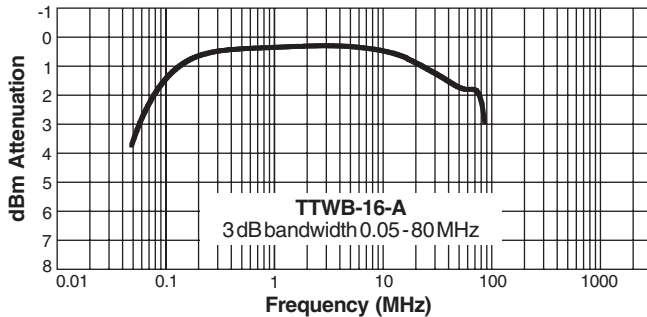
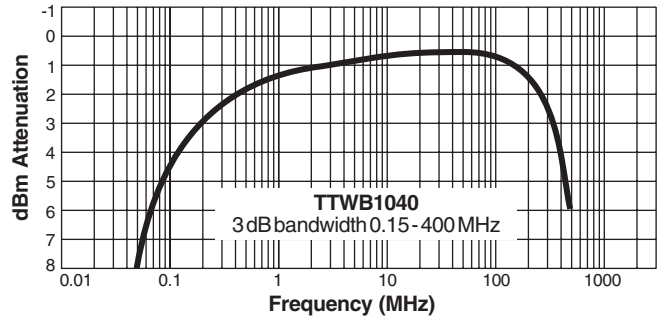
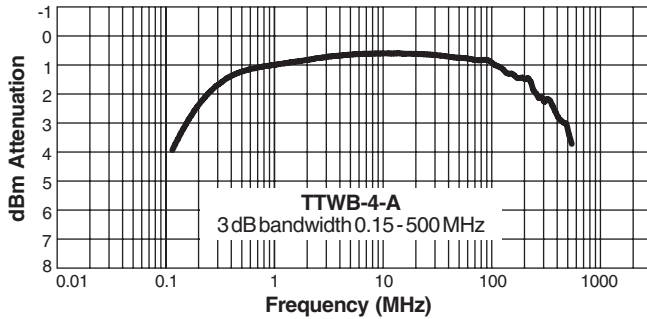
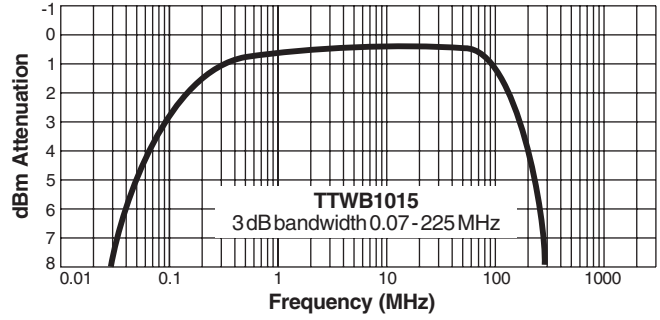
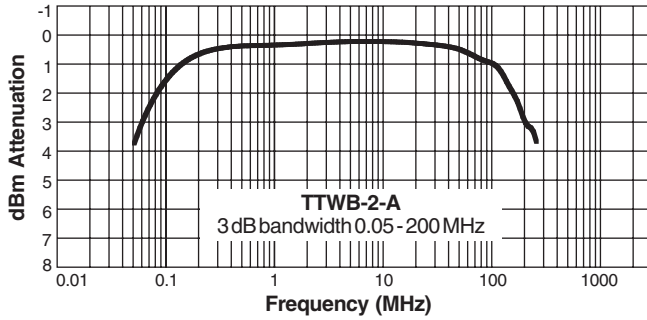
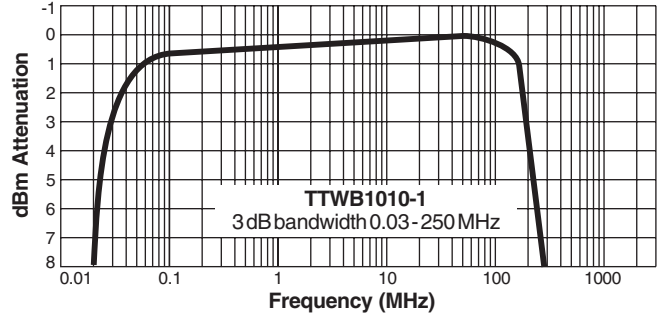
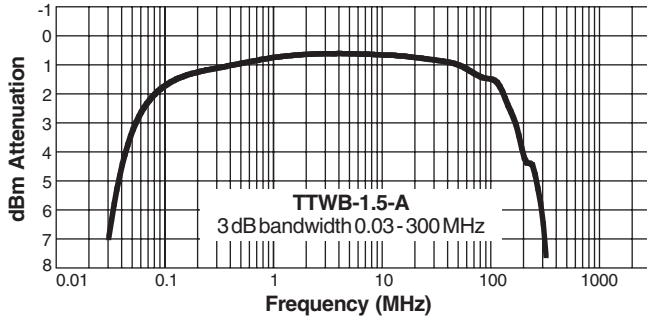
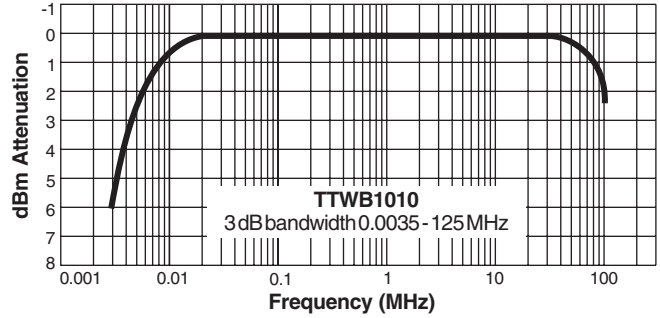
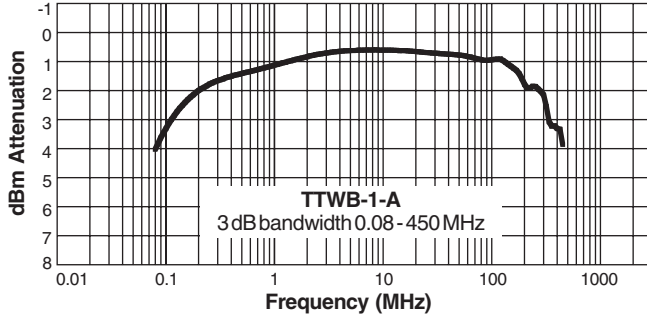
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# Type A Transformers



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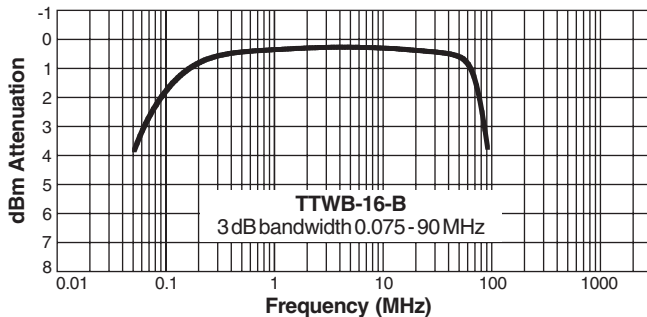
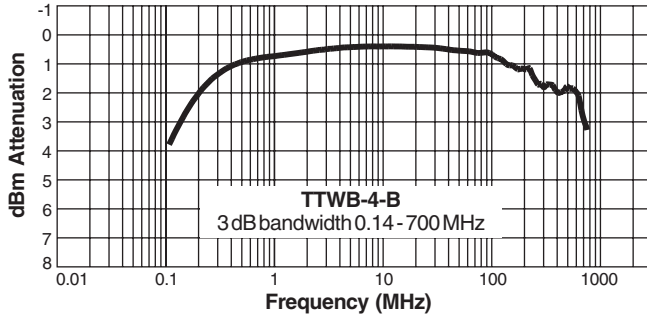
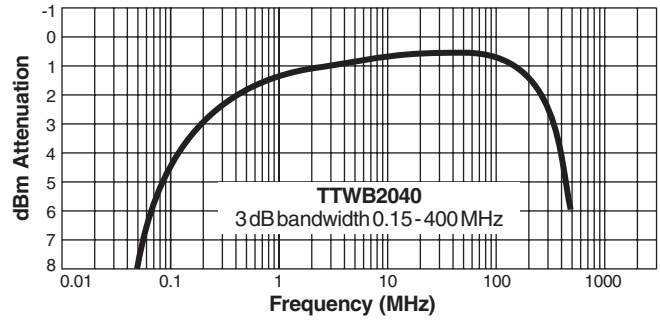
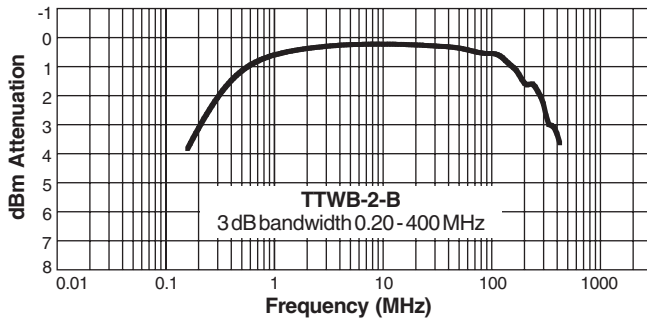
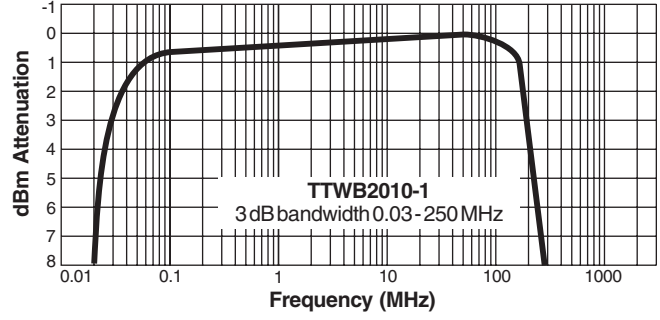
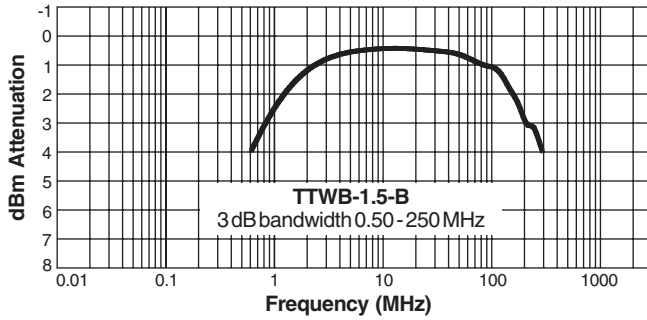
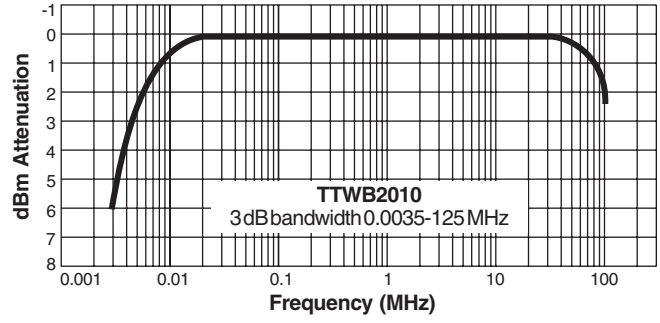
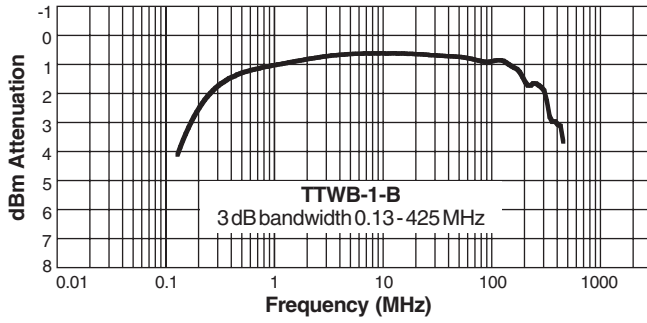
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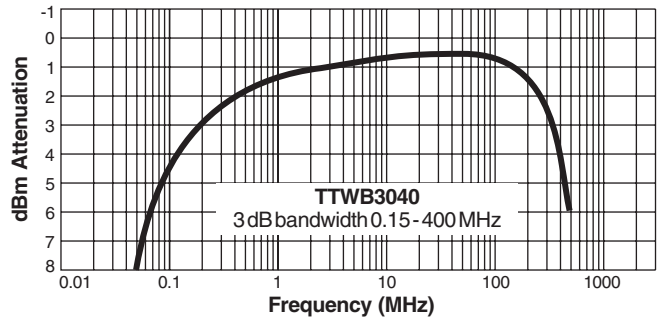
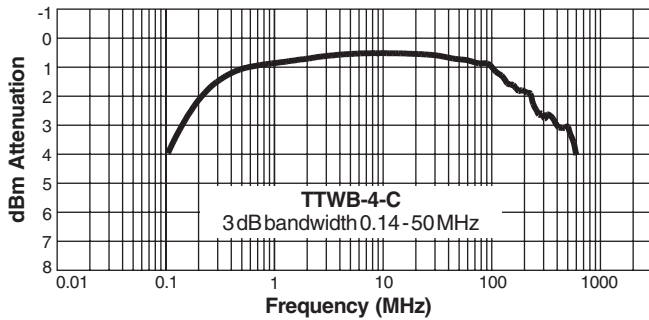
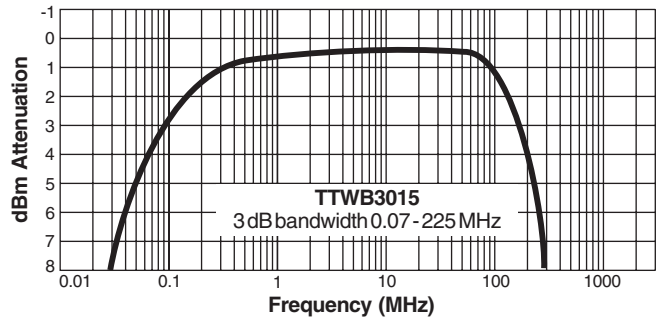
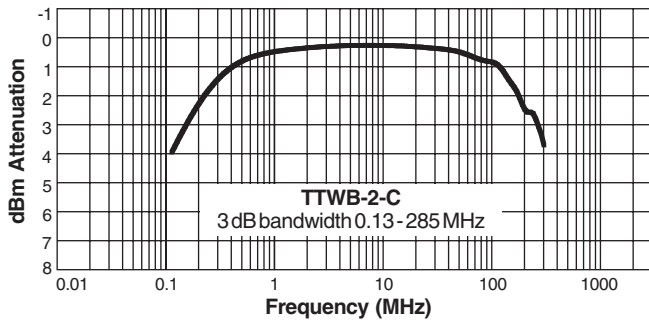
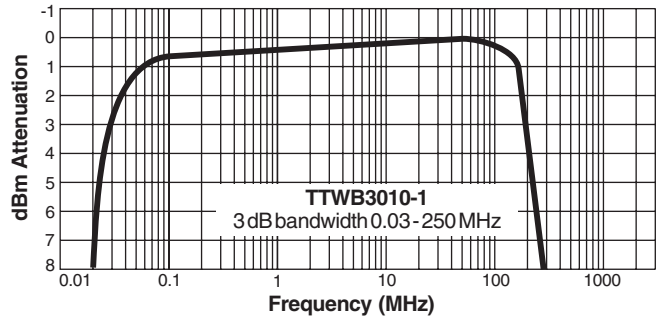
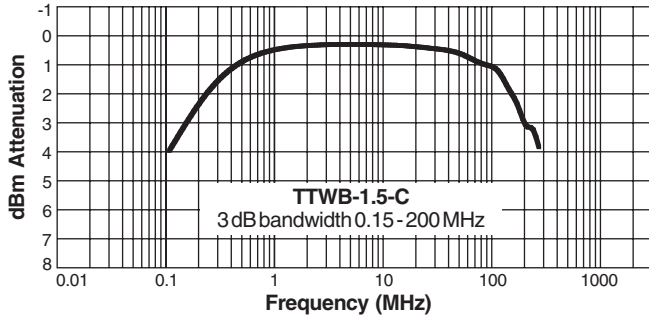
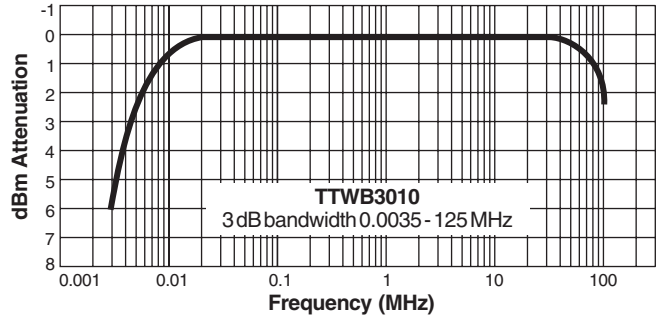
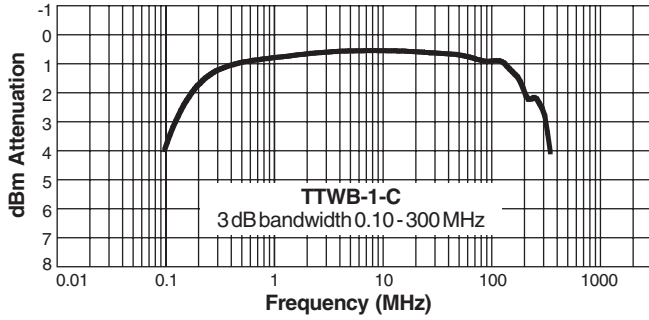
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