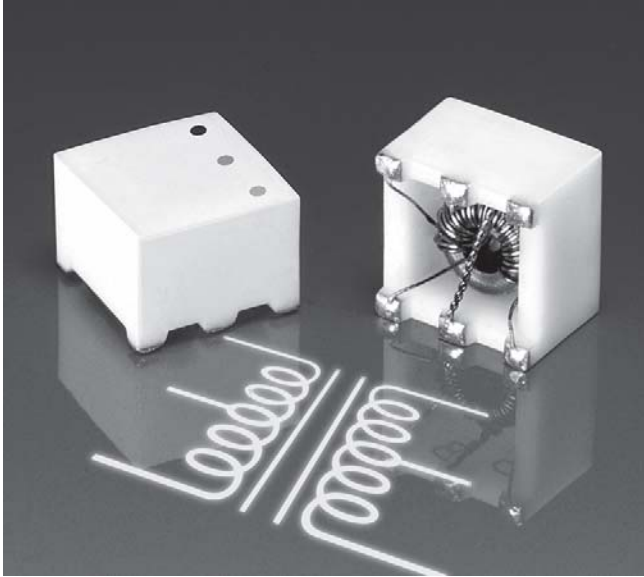




Surface Mount Wideband RF Transformers



- 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

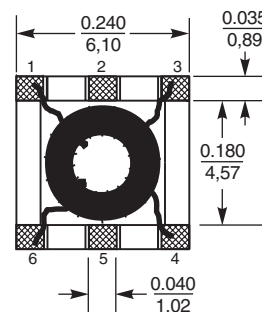
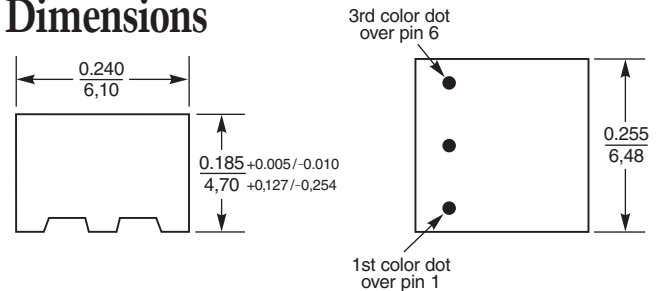
Packaging 1000 per 13" reel; Plastic tape: 16 mm wide, 0.34 mm thick, 12 mm pocket spacing, 4.83 mm pocket depth

PCB washing Only pure water or alcohol recommended

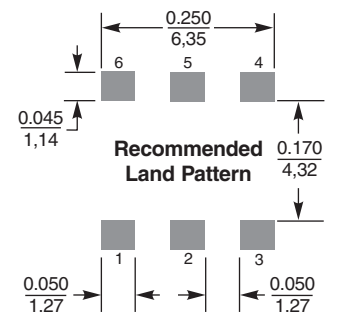
Typical Frequency Response

| 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 ¹ | Impedance ratio ² pri:sec | Bandwidth (MHz) | Idc (mA) | Insertion loss max (dB) | L min ³ (μH) | Pins 1-3 DCR max (Ohms) | L min ³ (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-A L D

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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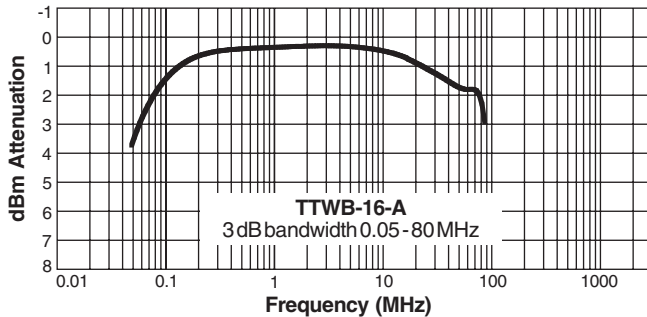
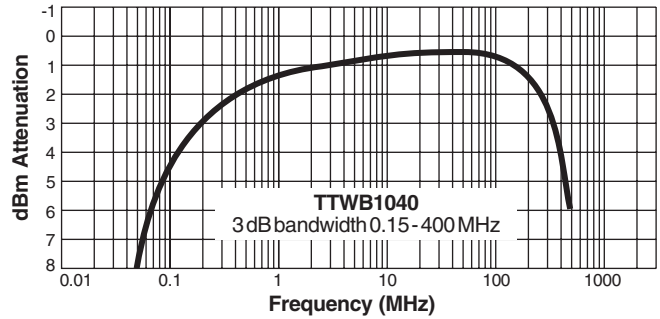
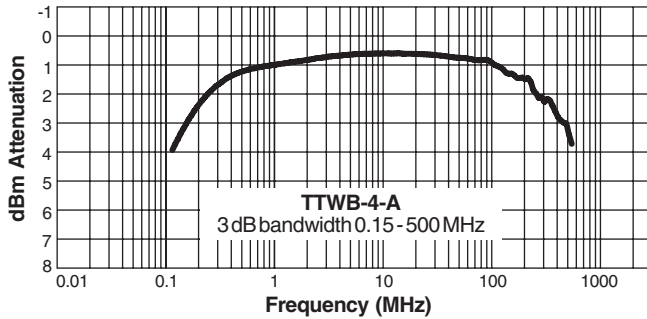
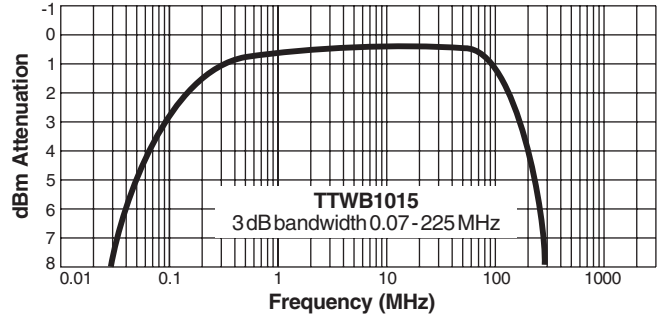
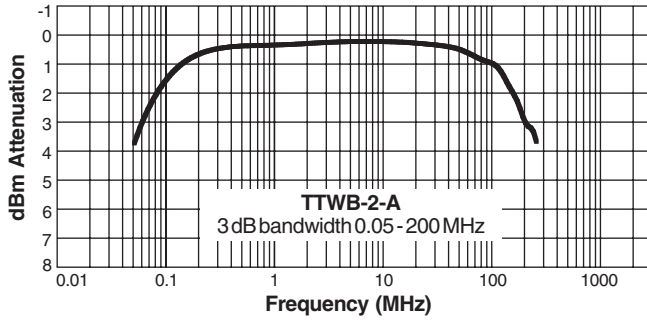
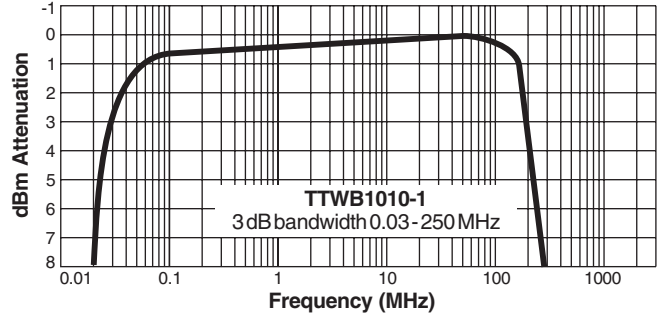
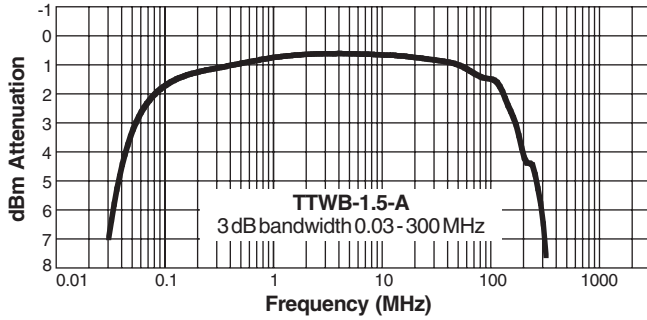
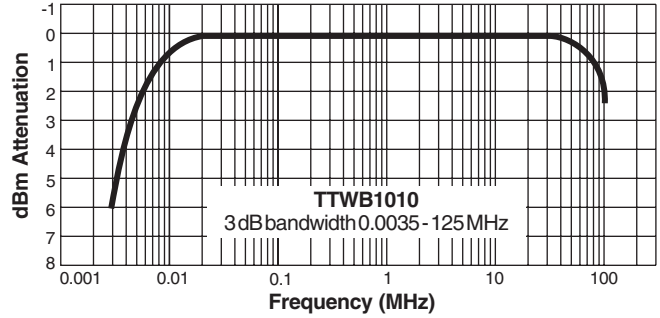
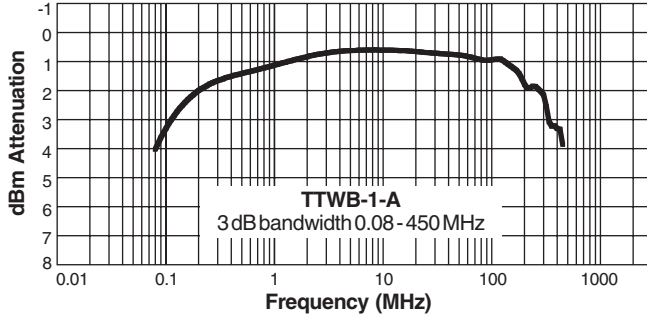
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Type A Transformers



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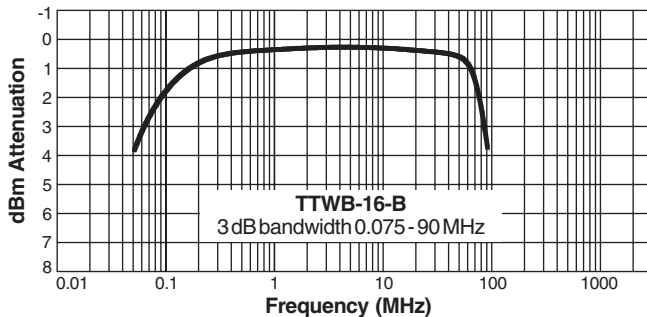
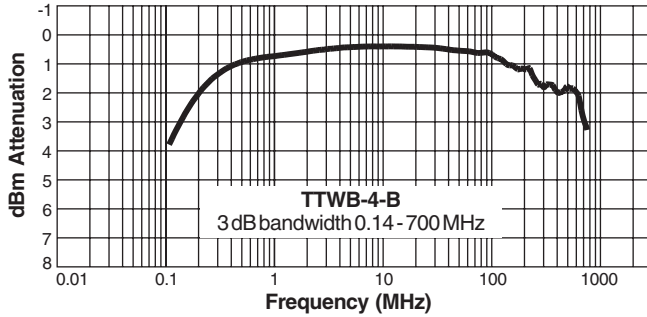
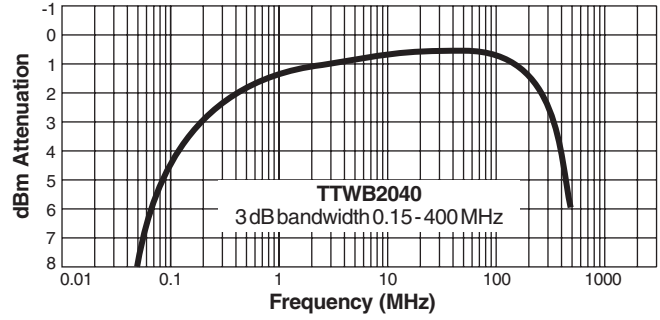
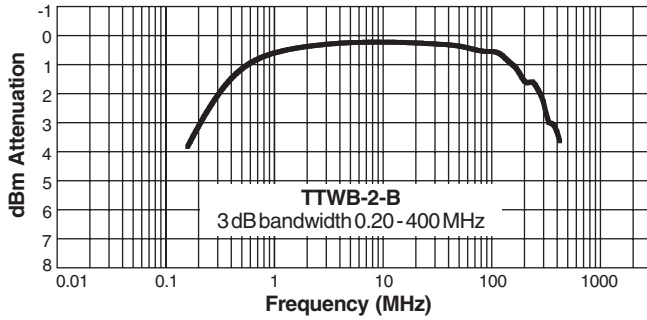
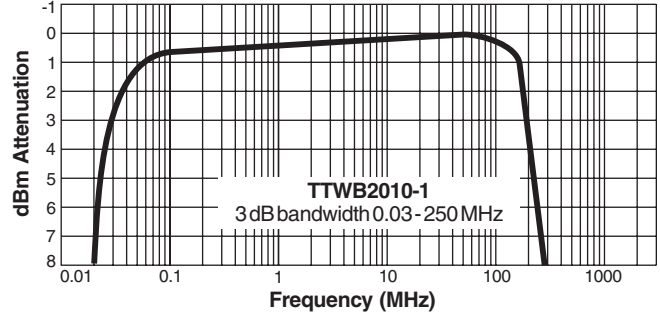
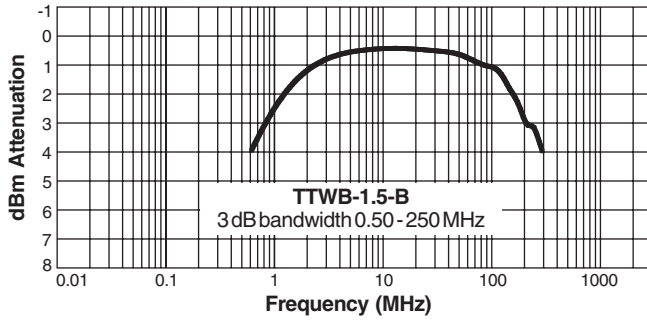
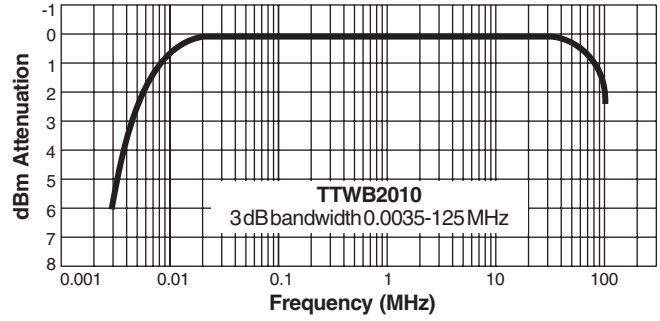
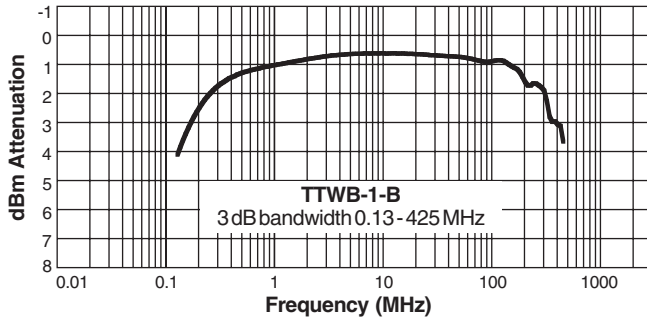
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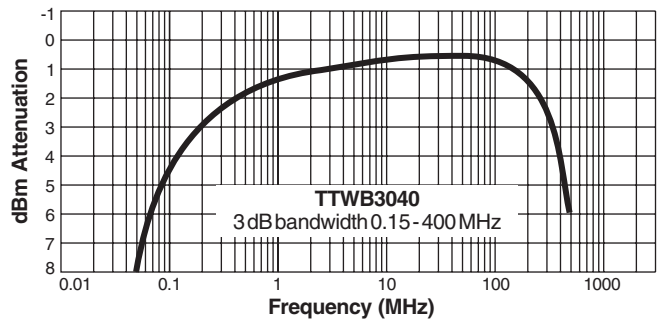
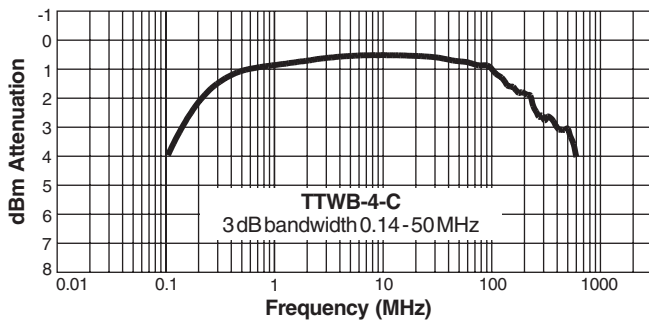
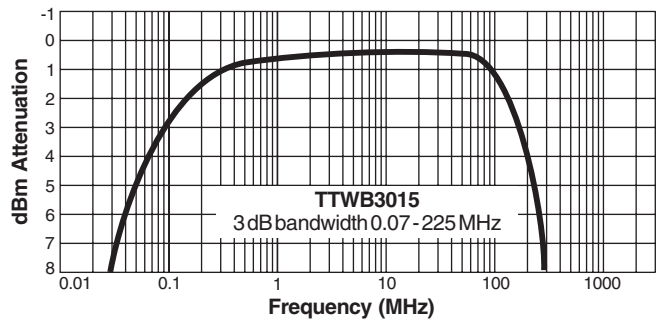
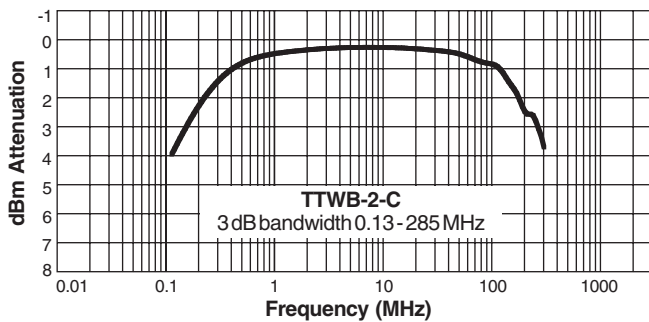
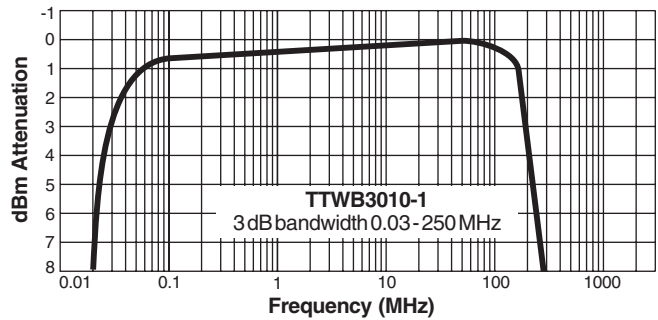
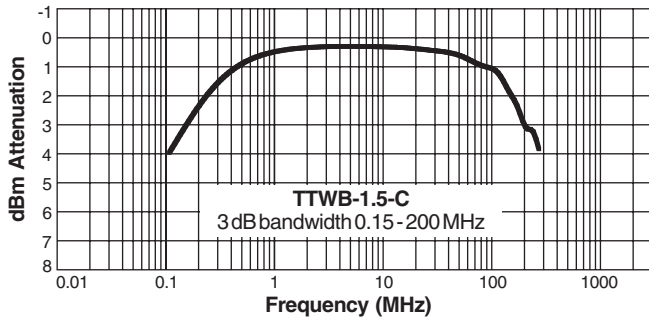
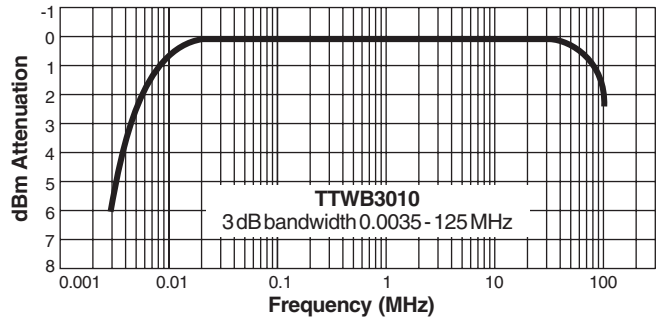
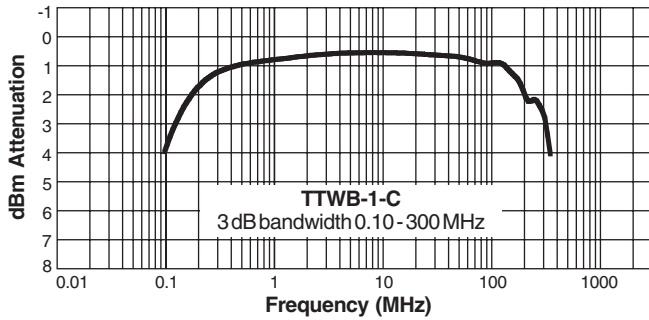
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Type C Transformers



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