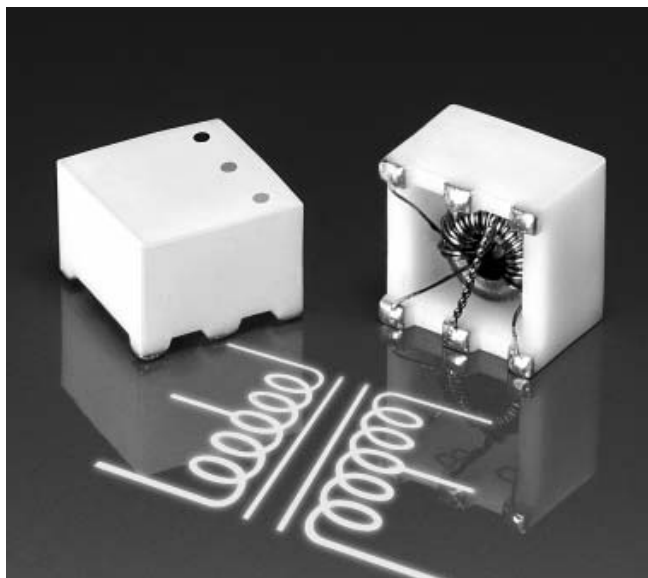


# Surface Mount Wideband RF Transformers



These wideband RF transformers provide excellent performance at a very economical price. They come tapped or untapped and are packaged in a low profile, flat top ceramic case that makes them ideal for pick and place operations. They feature 400 V isolation and 1/4 Watt RF power rating. Operating temperature range is -40° to +85°C.

Applications include impedance matching, voltage or current transformation, DC isolation, balanced/unbalanced mixing, matching, power splitting, coupling and signal inversion.

In addition to the standard parts shown, transformers with other combinations of impedance ratio, insertion loss, frequency response and current handling are available.

Coilcraft **Designer's Kit C129** contains samples of each part. Order by phone or at <http://order.coilcraft.com>.

| Type       | Part number | Impedance<br>ratio<br>Pri:Sec | Bandwidth<br>(MHz) | Idc<br>(mA) | Insertion<br>loss max<br>(dB) | Pins 1-3      |                   | Pins 6-4      |                   | Color code         |
|------------|-------------|-------------------------------|--------------------|-------------|-------------------------------|---------------|-------------------|---------------|-------------------|--------------------|
|            |             |                               |                    |             |                               | L min<br>(μH) | DCR max<br>(Ohms) | L min<br>(μH) | DCR max<br>(Ohms) |                    |
| <br>Type A | TTWB-1-A    | 1:1                           | 0.08 - 450         | 250         | 0.60                          | 40            | 0.070             | 40            | 0.070             | Black Black Green  |
|            | TTWB-1.5-A  | 1:1.5                         | 0.03 - 300         | 250         | 0.35                          | 110           | 0.080             | 160           | 0.110             | Black Brown Green  |
|            | TTWB-2-A    | 1:2                           | 0.05 - 200         | 250         | 0.25                          | 75            | 0.088             | 150           | 0.120             | Black Red Green    |
|            | TTWB-4-A    | 1:4                           | 0.15 - 500         | 250         | 0.50                          | 25            | 0.075             | 98            | 0.135             | Black Yellow Green |
|            | TTWB-16-A   | 1:16                          | 0.05 - 80          | 250         | 0.35                          | 75            | 0.260             | 1250          | 0.910             | Black Orange Green |
|            | TTWB1010    | 1:1                           | 0.0035 - 125       | 250         | 0.20                          | 780           | 0.320             | 780           | 0.320             | Black Black Black  |
|            | TTWB1010-1  | 1:1                           | 0.03 - 250         | 250         | 0.20                          | 95            | 0.200             | 95            | 0.200             | Black Black Violet |
|            | TTWB1015    | 1:1.5                         | 0.07 - 225         | 250         | 0.40                          | 51            | 0.130             | 80            | 0.145             | Black Black Brown  |
| <br>Type B | TTWB-1-B    | 1:1                           | 0.13 - 425         | 250         | 0.40                          | 22            | 0.070             | 22            | 0.070             | Brown Black Green  |
|            | TTWB-1.5-B  | 1:1.5                         | 0.50 - 250         | 250         | 0.40                          | 140           | 0.100             | 200           | 0.120             | Brown Brown Green  |
|            | TTWB-2-B    | 1:2                           | 0.20 - 400         | 250         | 0.35                          | 75            | 0.088             | 150           | 0.130             | Brown Red Green    |
|            | TTWB-4-B    | 1:4                           | 0.14 - 700         | 250         | 0.50                          | 25            | 0.075             | 98            | 0.135             | Brown Yellow Green |
|            | TTWB-16-B   | 1:16                          | 0.075 - 90         | 250         | 0.30                          | 75            | 0.260             | 1250          | 0.910             | Brown Orange Green |
|            | TTWB2010    | 1:1                           | 0.0035 - 125       | 250         | 0.20                          | 780           | 0.320             | 780           | 0.320             | Brown Black Black  |
|            | TTWB2010-1  | 1:1                           | 0.03 - 250         | 250         | 0.20                          | 95            | 0.200             | 95            | 0.200             | Brown Black Violet |
|            | TTWB2040    | 1:4                           | 0.15 - 400         | 250         | 0.40                          | 25            | 0.115             | 95            | 0.160             | Brown Black Yellow |
| <br>Type C | TTWB-1-C    | 1:1                           | 0.10 - 300         | 250         | 0.60                          | 22            | 0.070             | 22            | 0.070             | Red Black Green    |
|            | TTWB-1.5-C  | 1:1.5                         | 0.15 - 200         | 250         | 0.30                          | 140           | 0.110             | 200           | 0.120             | Red Brown Green    |
|            | TTWB-2-C    | 1:2                           | 0.13 - 285         | 250         | 0.30                          | 75            | 0.105             | 150           | 0.130             | Red Red Green      |
|            | TTWB-4-C    | 1:4                           | 0.14 - 500         | 250         | 0.50                          | 25            | 0.075             | 98            | 0.135             | Red Yellow Green   |
|            | TTWB3010    | 1:1                           | 0.0035 - 125       | 250         | 0.20                          | 780           | 0.320             | 780           | 0.320             | Red Black Black    |
|            | TTWB3010-1  | 1:1                           | 0.03 - 250         | 250         | 0.20                          | 95            | 0.200             | 95            | 0.200             | Red Black Violet   |
|            | TTWB3015    | 1:1.5                         | 0.07 - 225         | 250         | 0.40                          | 51            | 0.130             | 80            | 0.145             | Red Black Brown    |
|            | TTWB3040    | 1:4                           | 0.15 - 400         | 250         | 0.40                          | 25            | 0.115             | 95            | 0.160             | Red Black Yellow   |

1. Operating temperature range -40°C to +85°C.

2. Electrical specifications at 25°C.

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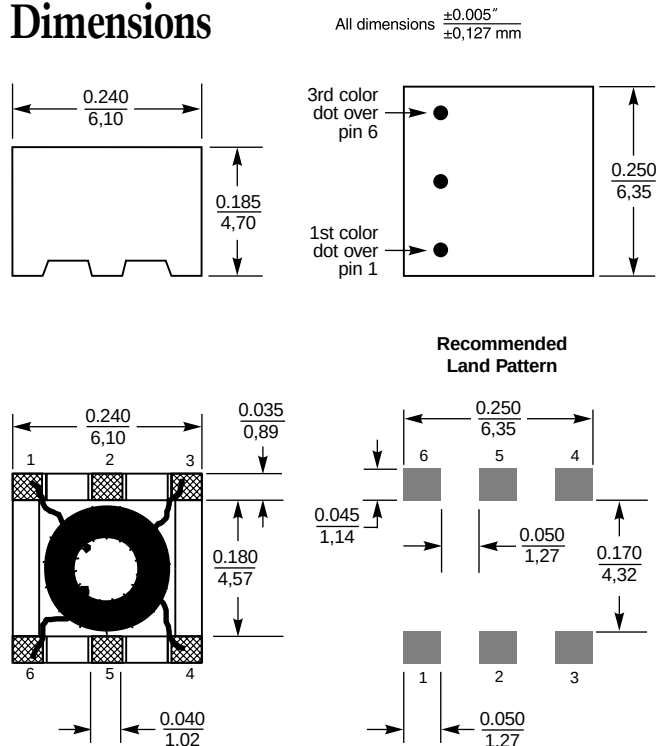
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# Surface Mount Wideband RF Transformers

## Dimensions



**Weight:** 0.37 – 0.43 g  
**Tape and reel:** 1000/13" reel 16 mm tape width  
 For packaging data see Tape and Reel Specifications section.

## Typical Frequency Response

| Part number | 3 dB (MHz)   | 2 dB (MHz)   | 1 dB (MHz)  |
|-------------|--------------|--------------|-------------|
| TTWB-1-A    | 0.08 - 450   | 0.13 - 325   | 0.30 - 190  |
| TTWB-1.5-A  | 0.03 - 300   | 0.035 - 250  | 0.06 - 150  |
| TTWB-2-A    | 0.05 - 200   | 0.06 - 160   | 0.10 - 100  |
| TTWB-4-A    | 0.15 - 500   | 0.24 - 300   | 0.60 - 140  |
| TTWB-16-A   | 0.05 - 80    | 0.06 - 75    | 0.11 - 30   |
| TTWB1010    | 0.0035 - 125 | 0.0045 - 100 | 0.007 - 80  |
| TTWB1010-1  | 0.03 - 250   | 0.04 - 225   | 0.06 - 200  |
| TTWB1015    | 0.07 - 225   | 0.10 - 200   | 0.20 - 125  |
| TTWB1040    | 0.15 - 400   | 0.25 - 350   | 0.80 - 250  |
| TTWB-1-B    | 0.13 - 425   | 0.18 - 325   | 0.32 - 190  |
| TTWB-1.5-B  | 0.50 - 250   | 0.80 - 175   | 1.50 - 120  |
| TTWB-2-B    | 0.20 - 400   | 0.225 - 275  | 0.50 - 150  |
| TTWB-4-B    | 0.14 - 700   | 0.20 - 400   | 0.40 - 150  |
| TTWB-16-B   | 0.075 - 90   | 0.11 - 75    | 0.20 - 65   |
| TTWB2010    | 0.0035 - 125 | 0.0045 - 100 | 0.007 - 80  |
| TTWB2010-1  | 0.03 - 250   | 0.04 - 225   | 0.06 - 200  |
| TTWB2040    | 0.15 - 400   | 0.25 - 350   | 0.80 - 250  |
| TTWB-1-C    | 0.10 - 300   | 0.13 - 200   | 0.20 - 150  |
| TTWB-1.5-C  | 0.15 - 200   | 0.225 - 150  | 0.35 - 100  |
| TTWB-2-C    | 0.13 - 285   | 0.20 - 175   | 0.325 - 125 |
| TTWB-4-C    | 0.14 - 500   | 0.20 - 230   | 0.40 - 110  |
| TTWB3010    | 0.0035 - 125 | 0.0045 - 100 | 0.007 - 80  |
| TTWB3010-1  | 0.03 - 250   | 0.04 - 225   | 0.06 - 200  |
| TTWB3015    | 0.07 - 225   | 0.10 - 200   | 0.20 - 125  |
| TTWB3040    | 0.15 - 400   | 0.25 - 350   | 0.80 - 250  |

1. Operating temperature range -40°C to +85°C.
2. Electrical specifications at 25°C.

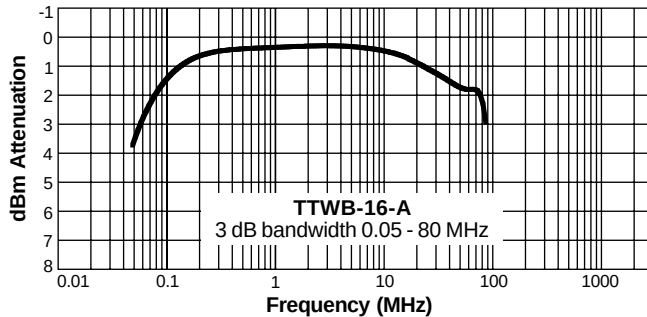
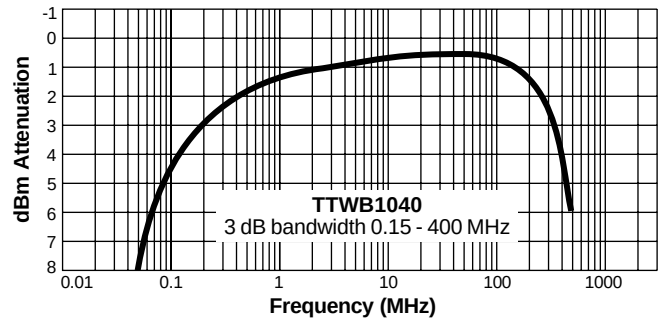
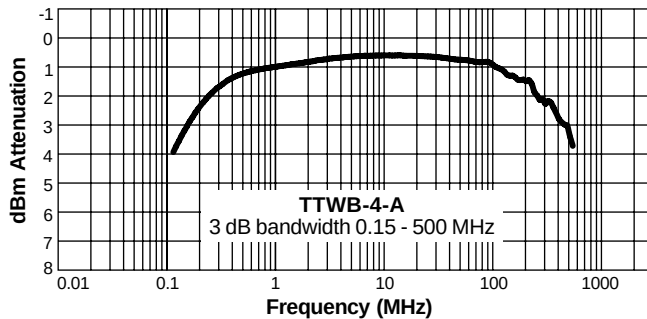
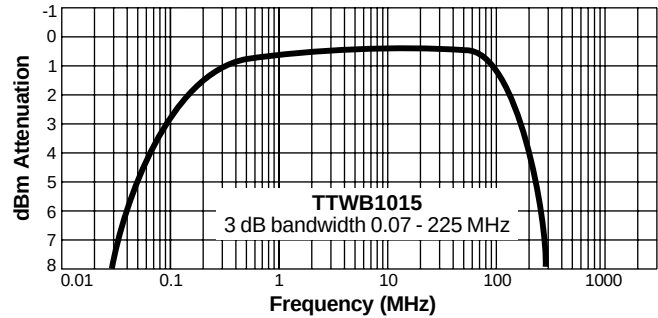
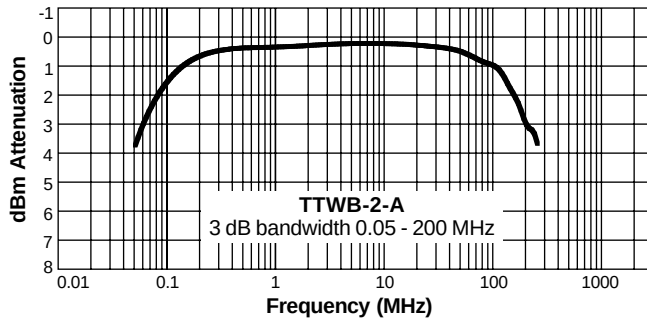
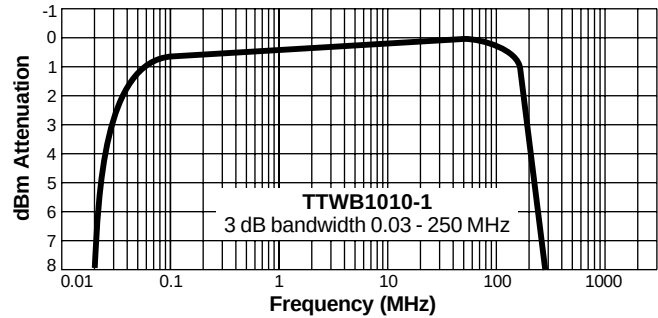
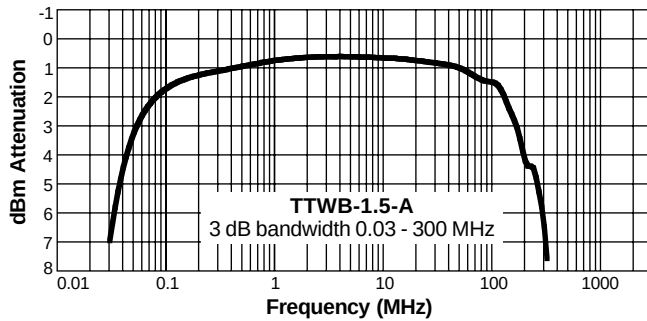
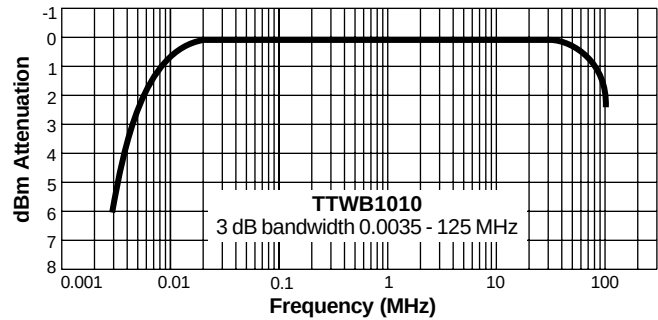
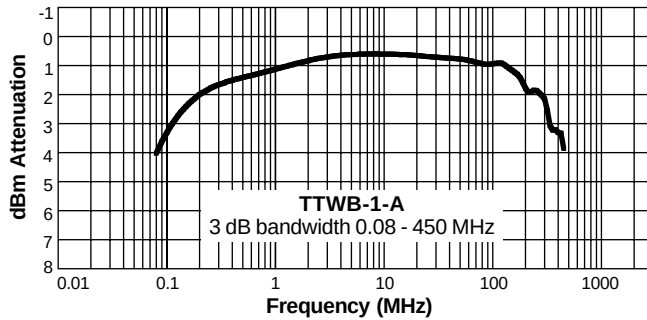
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## Type A Transformers



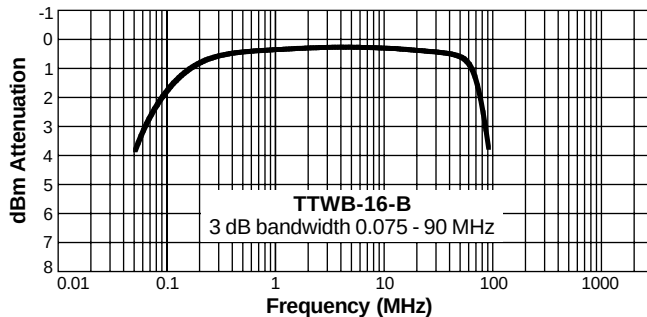
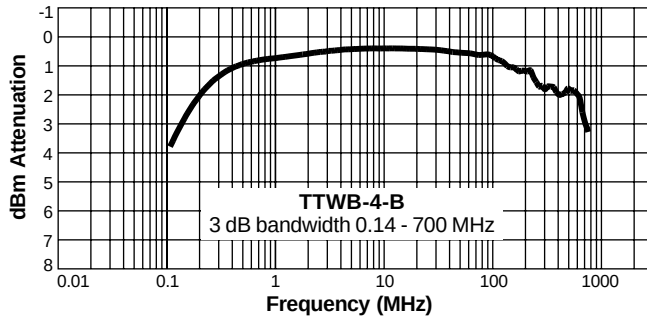
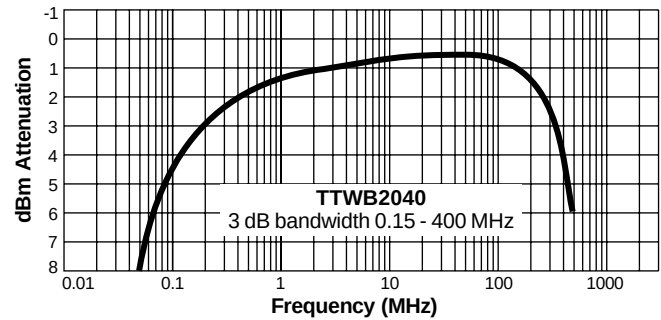
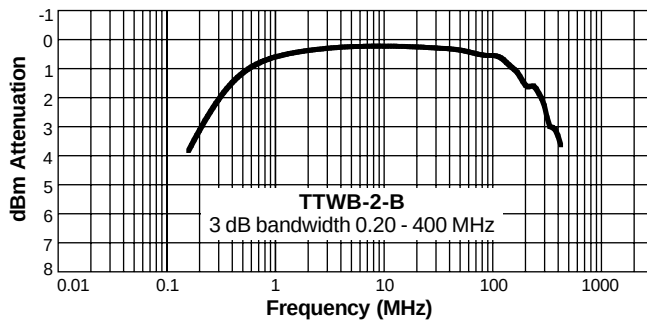
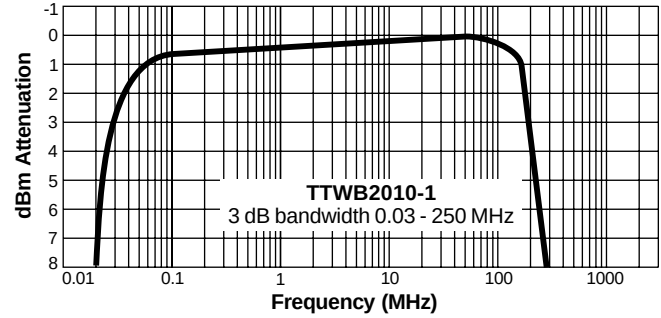
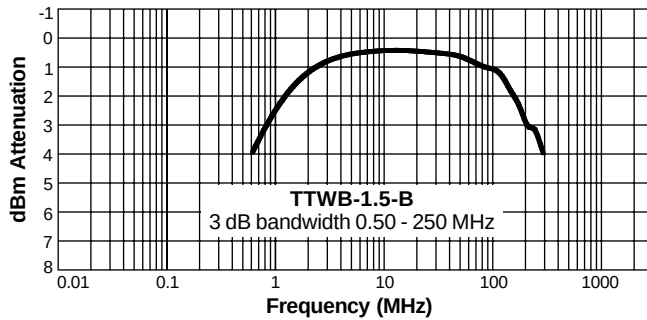
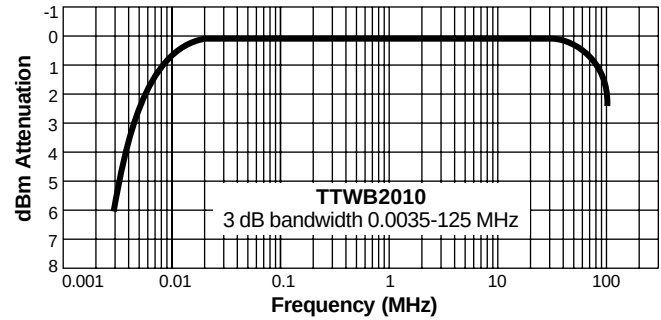
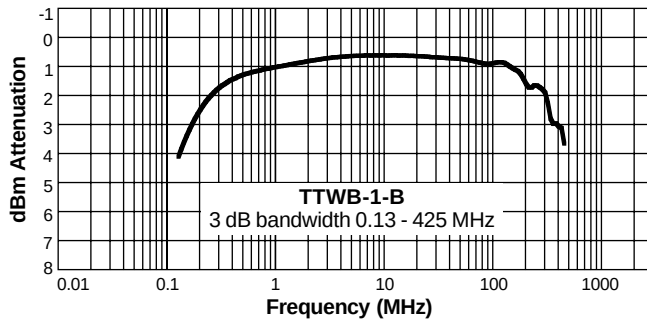
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## Type B Transformers



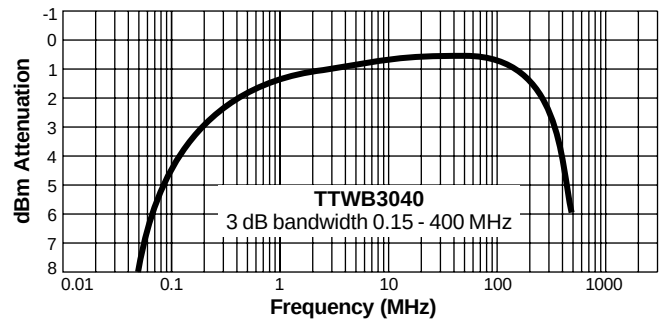
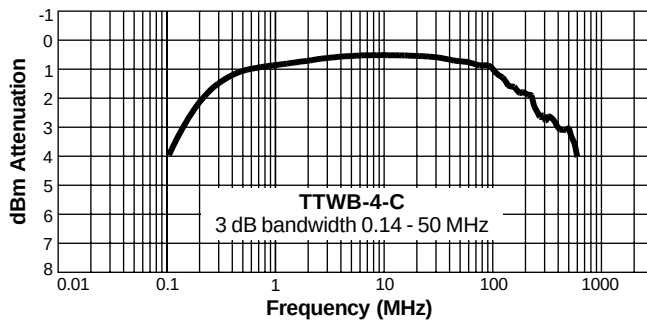
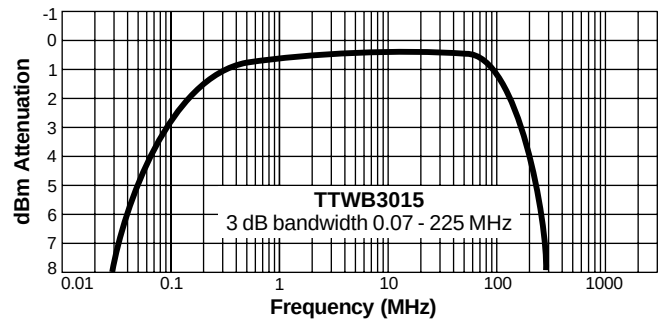
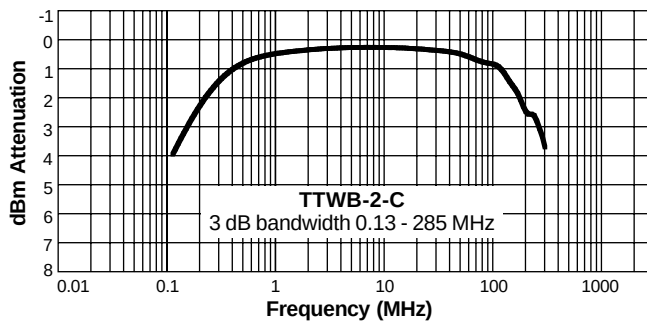
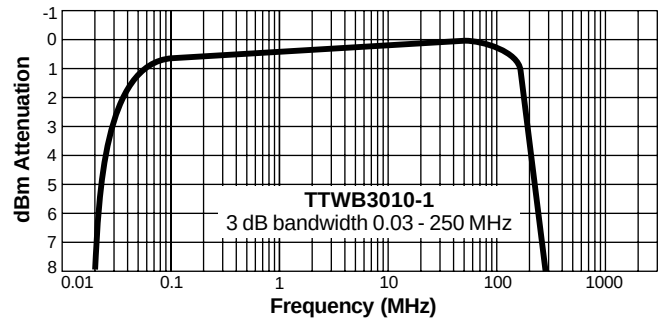
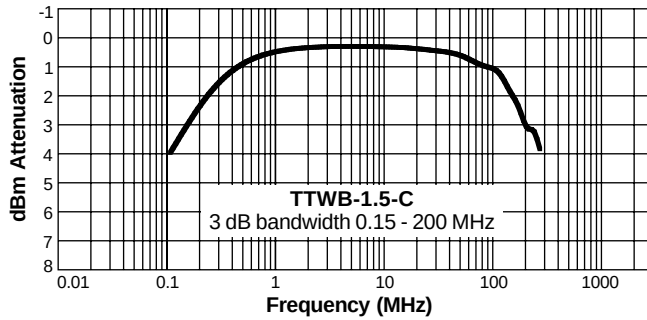
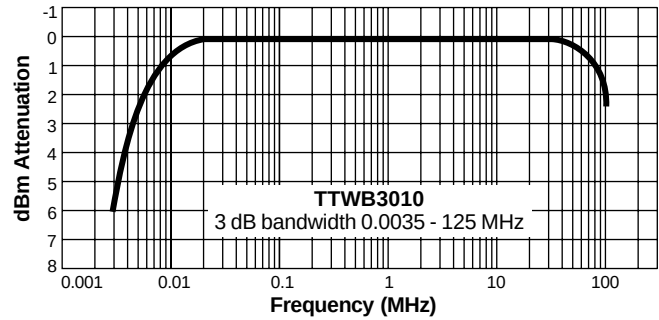
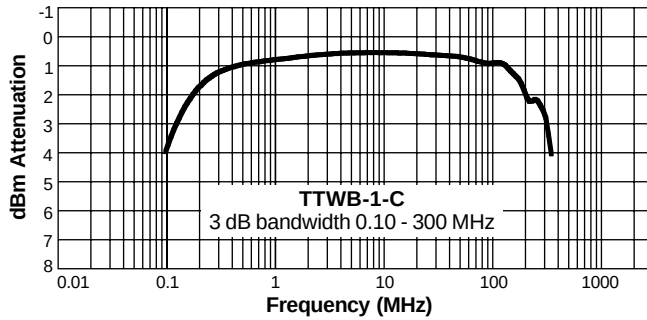
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## Type C Transformers



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