

Outgassing Compliant Wideband Transformers



- Miniature wideband transformer: 4 mm square 3 mm high
- 300 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating
- High temperature materials allow operation in ambient temperatures up to 155°C.
- Passes NASA low outgassing specifications
- Leach-resistant base metalization with tin-lead (Sn-Pb) terminations ensures the best possible board adhesion.

Core material Ferrite

Terminations Tin-lead (63/37) over silver-platinum-glass frit.

Ambient temperature -55°C to +155°C

Maximum part temperature +155°C (ambient + temp rise).

Storage temperature Component: -55°C to +155°C.

Tape and reel packaging: -55°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)

Enhanced crush-resistant packaging 750/7" reel;

Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.9 mm pocket depth

| Part number ¹ | Schem. | Impedance ratio ² pri:sec | Bandwidth (MHz) | Insertion loss max (dB) | Pins 1-3 (primary) | | Pins 4-6 (secondary) | | DC imbalance ⁵ max (mA) |
|--------------------------|--------|---|-----------------|-------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|---------------------------------------|
| | | | | | L min ³ (μH) | DCR max ⁴ (mOhm) | L min ³ (μH) | DCR max ⁴ (mOhm) | |
| AR458RFW01A1SZ | A | 1:1 | 0.470-950 | 0.40 | 10 | 120 | 10 | 120 | — |
| AR458RFW01B1SZ | B | 1:1 | 1.30-1100 | 0.80 | 5.5 | 75 | 5.5 | 75 | 36 |
| AR458RFW02B1SZ | B | 1:2 | 0.480-700 | 0.45 | 10 | 120 | 20 | 150 | 8.5 |
| AR458RFW03B1SZ | B | 1:3 | 0.630-830 | 0.60 | 7.0 | 100 | 21 | 155 | 8.5 |
| AR458RFW04B1SZ | B | 1:4 | 3.00-1100 | 1.8 | 2.5 | 55 | 10 | 120 | 30 |
| AR458RFW04B2SZ | B | 1:4 | 3.20-1150 | 1.8 | 2.0 | 55 | 8.0 | 100 | 15 |
| AR458RFW04B3SZ | B | 1:4 | 1.20-1000 | 0.85 | 4.0 | 80 | 16 | 120 | 10 |
| AR458RFW04B4SZ | B | 1:4 | 0.750-900 | 0.50 | 7.0 | 90 | 28 | 200 | 7.5 |
| AR458RFW08B1SZ | B | 1:8 | 1.40-950 | 0.90 | 4.5 | 120 | 36 | 310 | 17 |
| AR458RFW09B1SZ | B | 1:9 | 0.680-550 | 0.50 | 7.0 | 90 | 63 | 230 | 5.0 |
| AR458RFW16B1SZ | B | 1:16 | 1.36-420 | 0.85 | 4.0 | 80 | 64 | 230 | 5.0 |
| AR458RFW04C1SZ | C | 1:4 | 3.70-1600 | 1.6 | 3.0 | 60 | 12 | 120 | 30 |

1. When ordering, please specify **testing** code:

AR458RFW04C1SZ

Testing:

Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

T = Screening per MIL-STD-981

U = Screening per EEE-INST-002

F = Screening per ESCC 3201

All screening performed to the document's latest revision

Custom screening also available

2. Impedance ratio is for the full primary winding to the full secondary winding.

3. Inductance measured at 100 kHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.

4. DCR measured on a micro-ohmmeter.

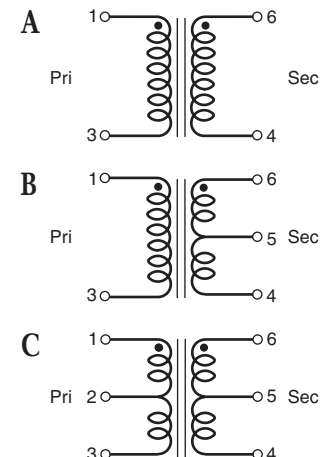
5. DC imbalance is the maximum difference in current measured at pins 4 and 6 with the source at pin 5.

Inductance drop is 15% at maximum imbalance.

6. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

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

Schematics



Document AR424-1 Revised 05/17/17

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

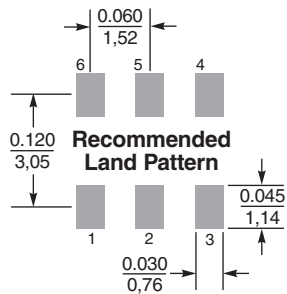
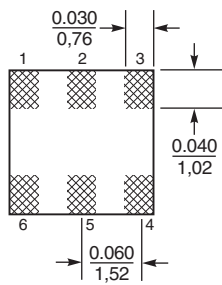
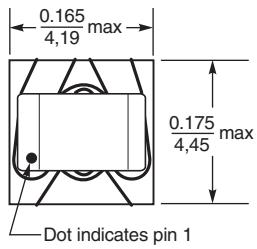
1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

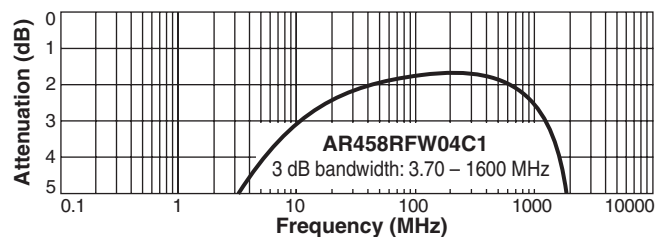
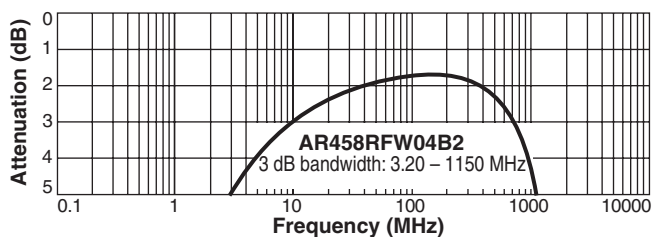
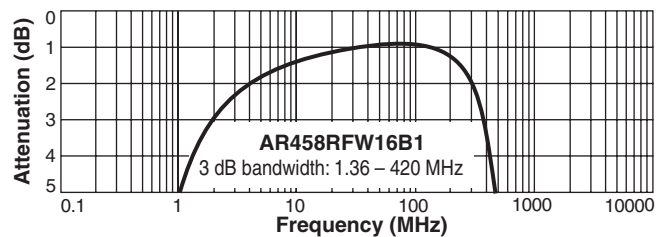
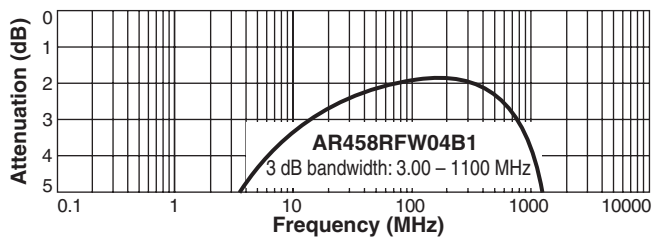
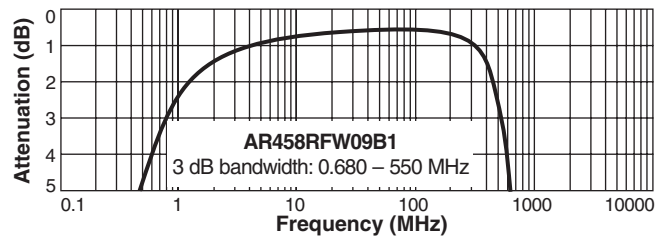
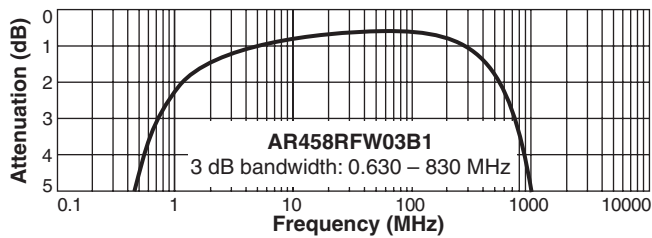
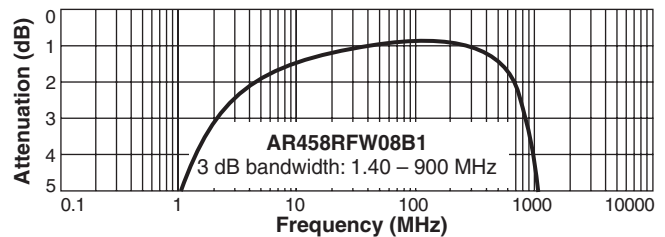
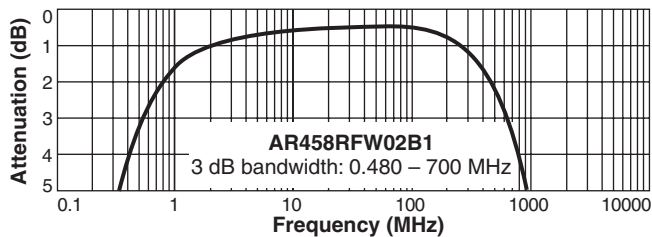
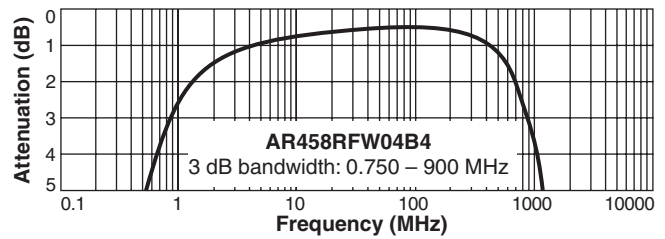
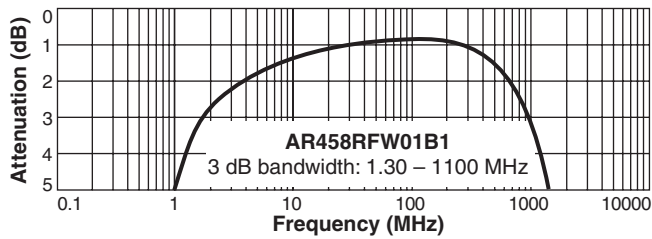
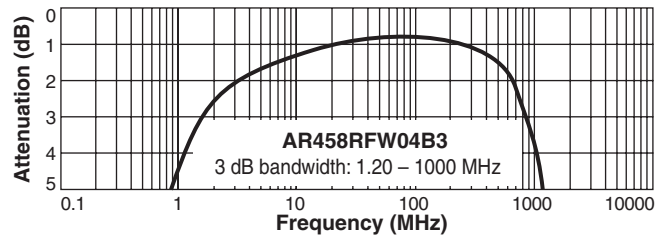
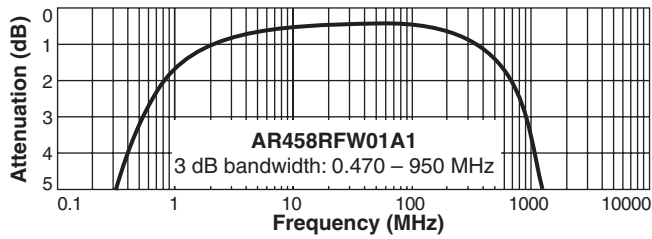
AR458RFW Outgassing Compliant Wideband Transformers

Dimensions



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

AR458RFW Outgassing Compliant Wideband Transformers



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