

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
- 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 See note 6.

Storage temperature See note 6.

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; 3000/13" 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)	Temp ⁶
					L min ³ (µH)	DCR max ⁴ (mOhm)	L min ³ (µH)	DCR max ⁴ (mOhm)		
AE458RFW01A1SZ	A	1:1	0.400–600	0.40	10	120	10	120	—	A
AE458RFW01B1SZ	B	1:1	0.250–750	0.58	9.5	75	9.5	75	36	B
AE458RFW02B1SZ	B	1:2	0.200–500	0.50	10	120	20	150	8.5	A
AE458RFW03B1SZ	B	1:3	0.300–900	0.60	9.0	100	27	150	8.5	A
AE458RFW04B1SZ	B	1:4	0.250–750	1.0	9.0	55	36	120	30	B
AE458RFW04B2SZ	B	1:4	1.500–1200	2.0	2.0	50	8.0	100	15	A
AE458RFW04B3SZ	B	1:4	0.500–1000	0.90	5.0	80	20	120	10	A
AE458RFW04B4SZ	B	1:4	0.300–700	0.65	9.0	80	36	200	7.5	A
AE458RFW08B1SZ	B	1:8	0.150–600	0.60	22	120	176	310	17	B
AE458RFW09B1SZ	B	1:9	0.300–500	0.54	9.0	80	81	230	5.0	A
AE458RFW16B1SZ	B	1:16	0.600–300	0.80	5.0	80	80	230	5.0	A
AE458RFW04C1SZ	C	1:4	0.250–800	1.0	9.0	60	36	120	30	B

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

AE458RFW04C1SZ

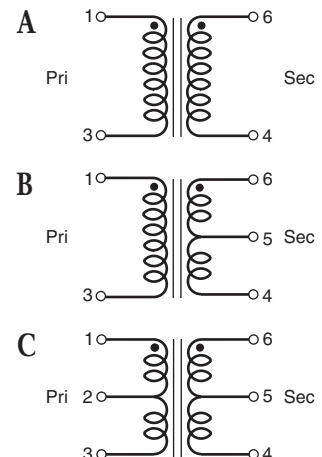
Testing: Z = COTS

H = Screening per Coilcraft CP-SA-10001

N = Screening per Coilcraft CP-SA-10005

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. Temperature ratings: A = -40°C to +85°C ambient; -55°C to +85°C storage.
B = -55°C to +105°C ambient; -55°C to +125°C storage
7. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Schematics



Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

Specifications subject to change without notice.
Please check our website for latest information.

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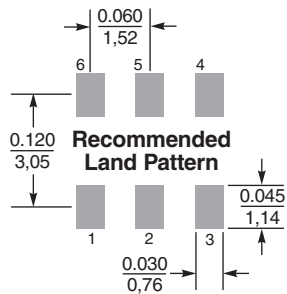
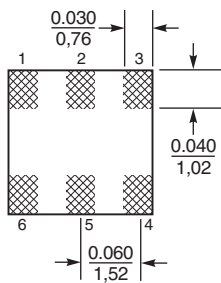
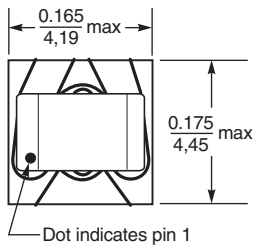
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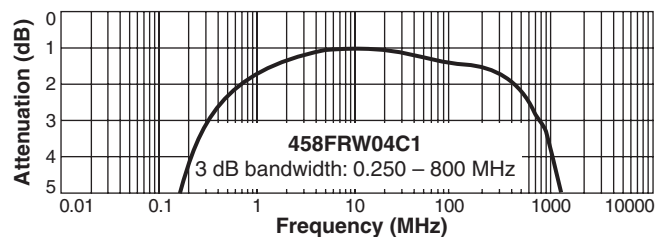
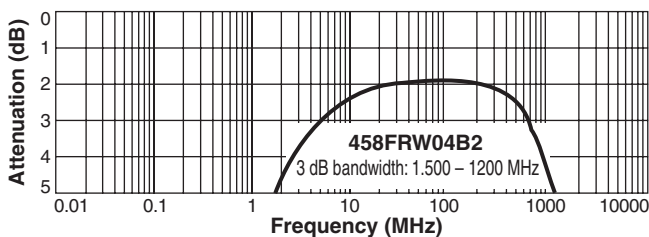
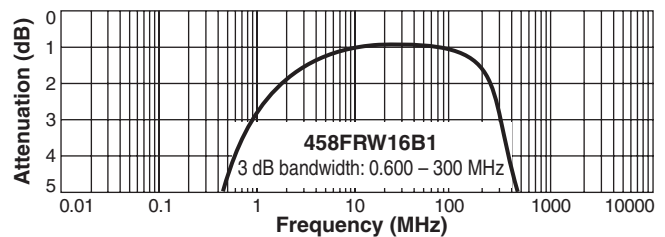
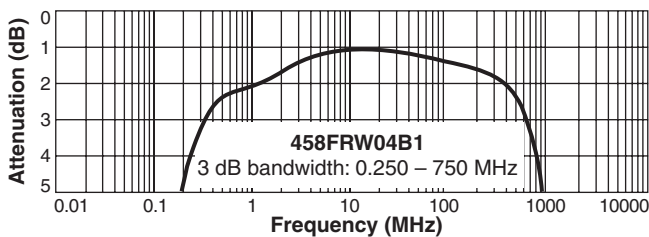
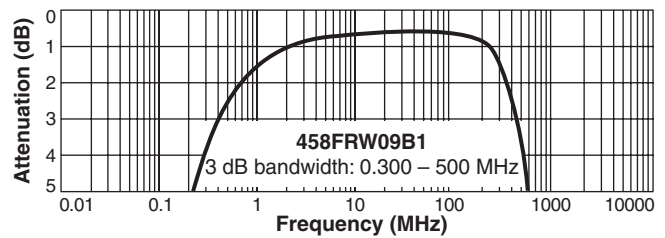
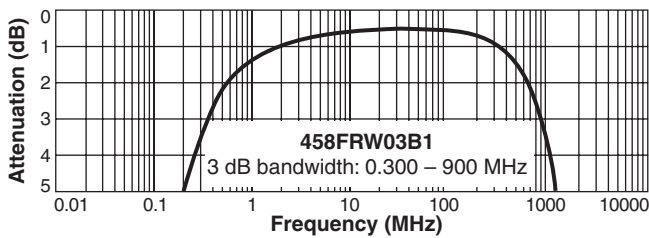
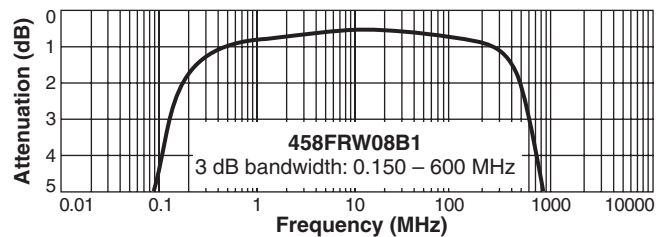
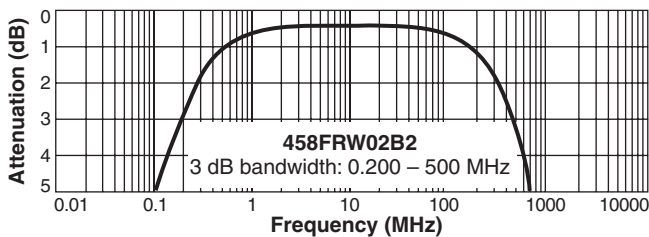
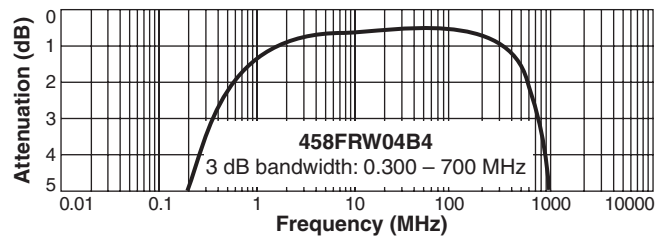
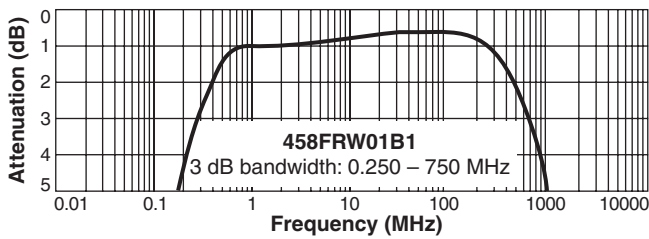
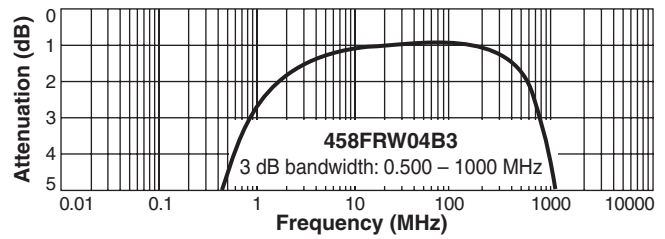
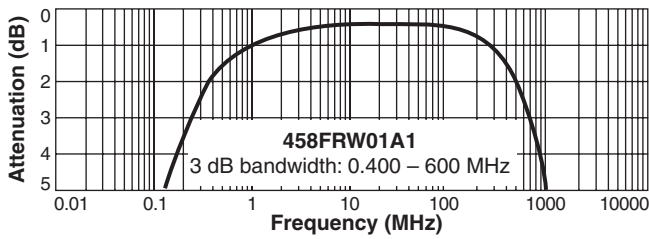
AE458RFW Outgassing Compliant Wideband Transformers

Dimensions



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

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