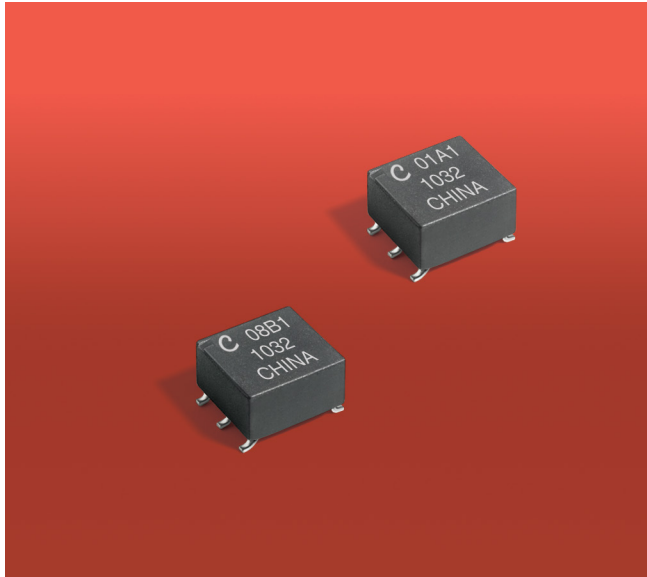


# High Reliability Wideband Transformers



- Small wideband transformer: 7.2 × 6.43 × 4.45 mm high
- 300 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating
- Tin-lead terminations for the best possible board adhesion

**Core material** Ferrite

**Terminations** Tin-lead over tin over nickel over phos bronze.

**Weight** 200 –230 mg

**Ambient temperature** –55°C to +125°C

**Maximum part temperature** +125°C (ambient + temp rise).

**Storage temperature** Component: –55°C to +125°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** 250/7"reel

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

Part number <sup>1</sup>	Schematic	Impedance ratio <sup>2</sup> pri:sec	Bandwidth (MHz)	Insertion loss max (dB)	Pins 1-3 (primary)		Pins 6-4 (secondary)	
					L min <sup>3</sup> (µH)	DCR max <sup>4</sup> (mOhm)	L min <sup>3</sup> (µH)	DCR max <sup>4</sup> (mOhm)
MS520RFA01A1SZ	A	1 : 1	0.045 – 365	0.25	60	130	60	130
MS520RFA01B1SZ	B	1 : 1	0.045 – 365	0.25	60	130	60	130
MS520RFA02B1SZ	B	1 : 2	0.045 – 495	0.25	60	130	140	180
MS520RFA03B1SZ	B	1 : 3	0.075 – 425	0.35	40	120	140	180
MS520RFA04B1SZ	B	1 : 4	0.120 – 440	0.60	25	90	100	160
MS520RFA08B1SZ	B	1 : 8	0.105 – 300	0.60	25	90	200	180
MS520RFA09B1SZ	B	1 : 9	0.075 – 200	0.30	40	120	500	250
MS520RFA16B1SZ	B	1 : 16	0.105 – 135	0.60	25	90	500	250

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

**MS520RFA16B1SZ**

**Testing:** Z = Unscreened

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

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.

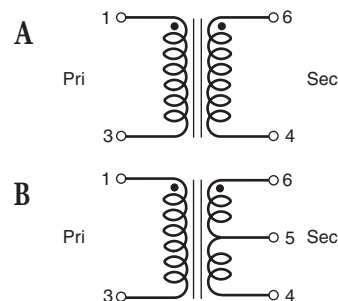
3. Inductance measured at 100 kHz, 0.1 V, 0 Adc on an Voltech AT3600 or equivalent.

4. DCR measured on a Voltech AT3600 or equivalent.

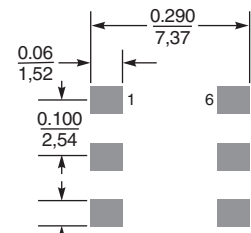
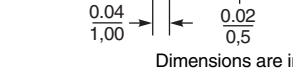
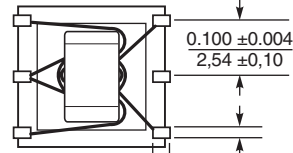
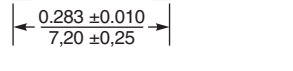
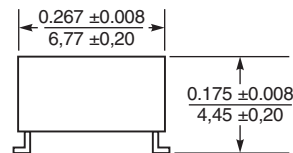
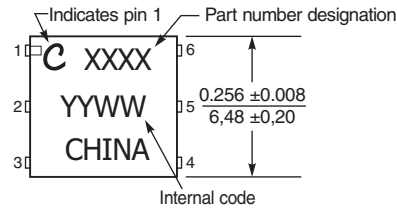
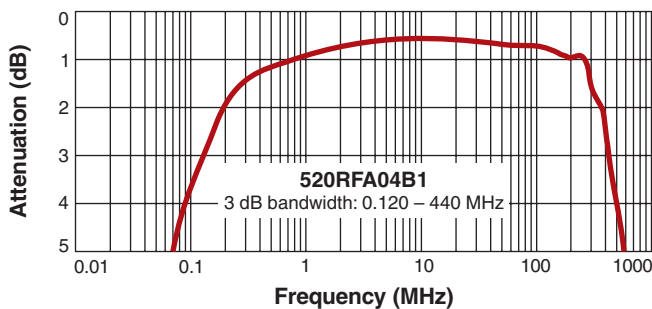
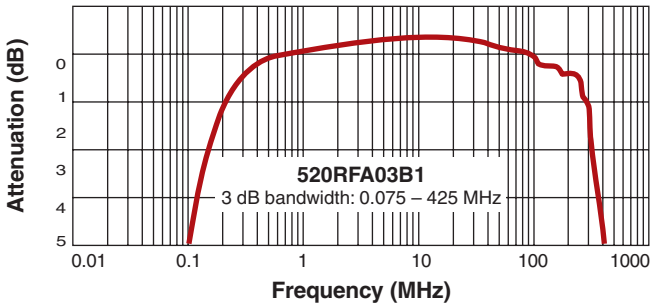
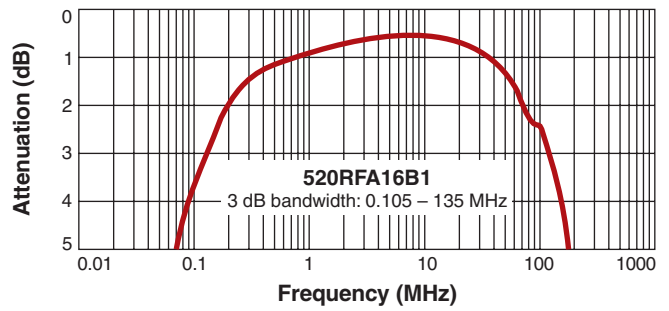
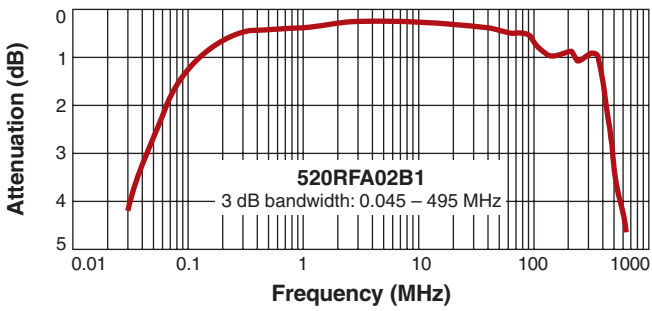
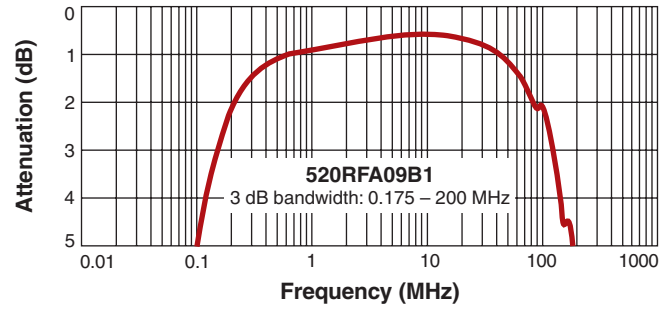
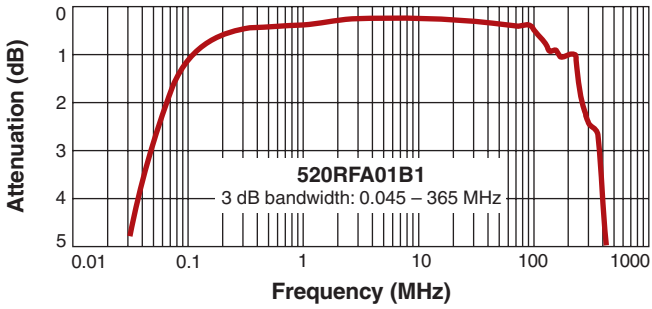
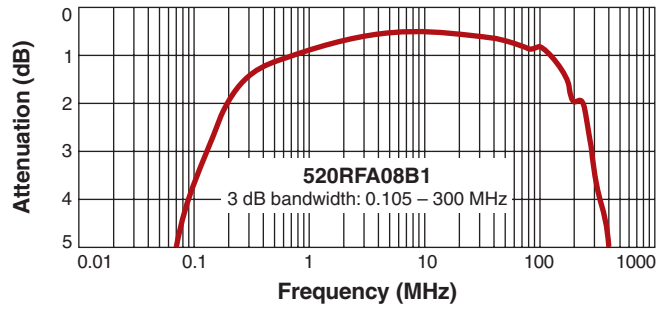
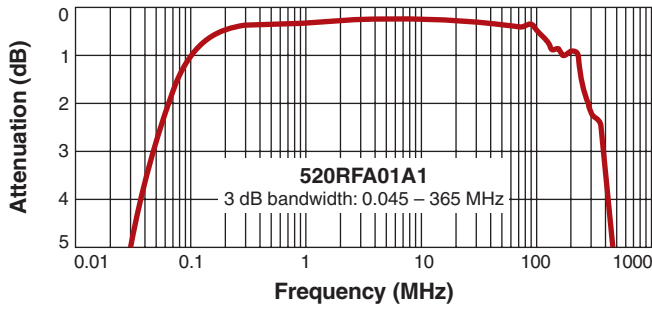
5. Electrical specifications at 25°C.

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

## Schematics



# ML520RFA Series



Dimensions are in inches/mm



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