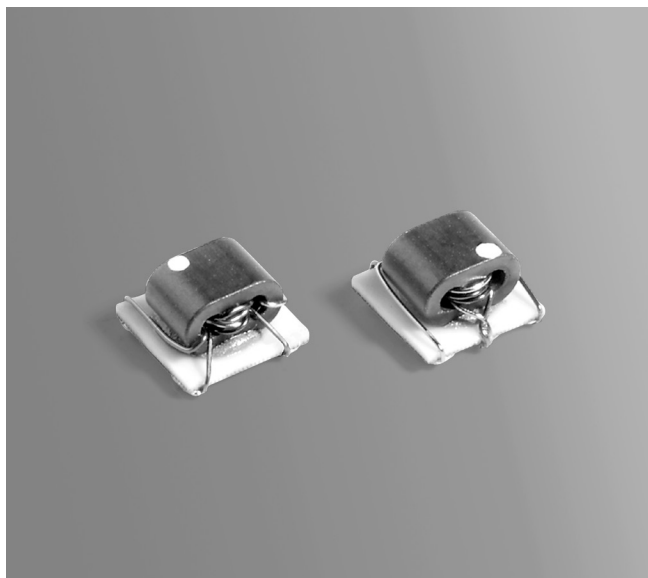




# SMT Mini Wideband Transformer



- 3 dB bandwidth: 0.1 MHz to 3.5 GHz
- 1/4 Watt RF input power
- 250 mA max current rating.

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over silver-platinum-glass frit. Other terminations available at additional cost.

**Weight** 83.3 mg

**Interwinding isolation** 300 V

**Ambient temperature** -40°C to +85°C

**Storage temperature** Component: -40°C to +85°C.

Tape and reel 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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

60 per billion hours / 16,666,667 hours, calculated per Telcordia SR-332

**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

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCBt\\_Washing.pdf](#).

| Part number <sup>1</sup> | Impedance ratio pri:sec | Bandwidth (MHz) | Insertion loss max (dB) | Pins 1-4                |                             | Pins 2-3                |                             |
|--------------------------|-------------------------|-----------------|-------------------------|-------------------------|-----------------------------|-------------------------|-----------------------------|
|                          |                         |                 |                         | L min <sup>3</sup> (μH) | DCR max <sup>4</sup> (mOhm) | L min <sup>3</sup> (μH) | DCR max <sup>4</sup> (mOhm) |
| JA4220-AL_               | 1:1                     | 0.1 – 3500      | 0.2                     | 15                      | 120                         | 15                      | 120                         |

1. When ordering, please specify **termination** and **packaging** code:

JA4220-ALC

**Termination:** L = RoHS compliant tin-silver-copper over silver-platinum-glass frit.

Special order: S = non-RoHS tin-lead (63/37).

**Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (750 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 C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3000 parts per full reel).

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

3. DCR measured on a micro-ohmmeter.

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

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



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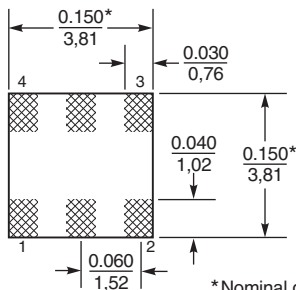
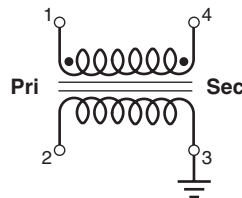
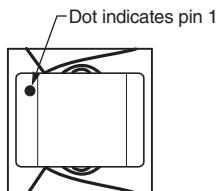
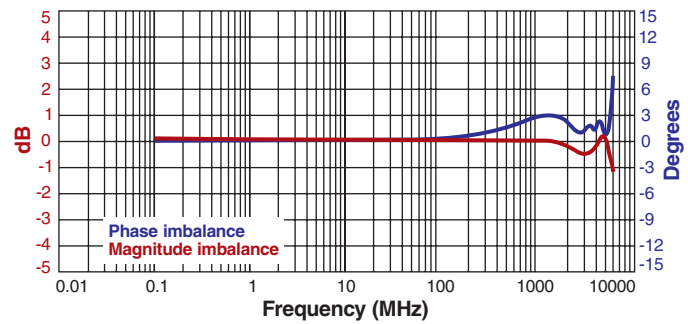
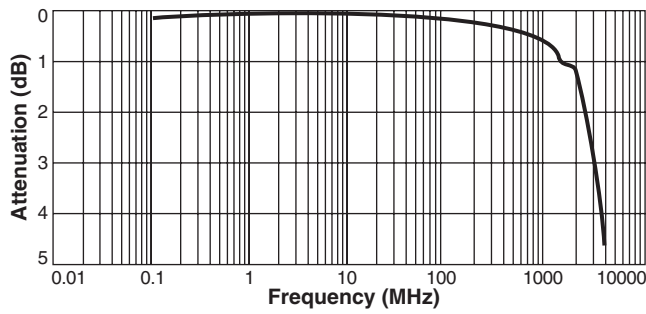
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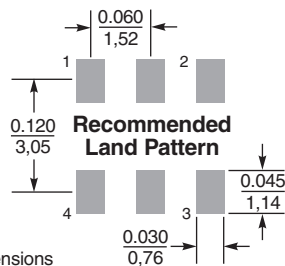


# SMT Mini Wideband Transformer – JA4220-AL



\*Nominal dimensions  
of the substrate

## Recommended Land Pattern



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



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