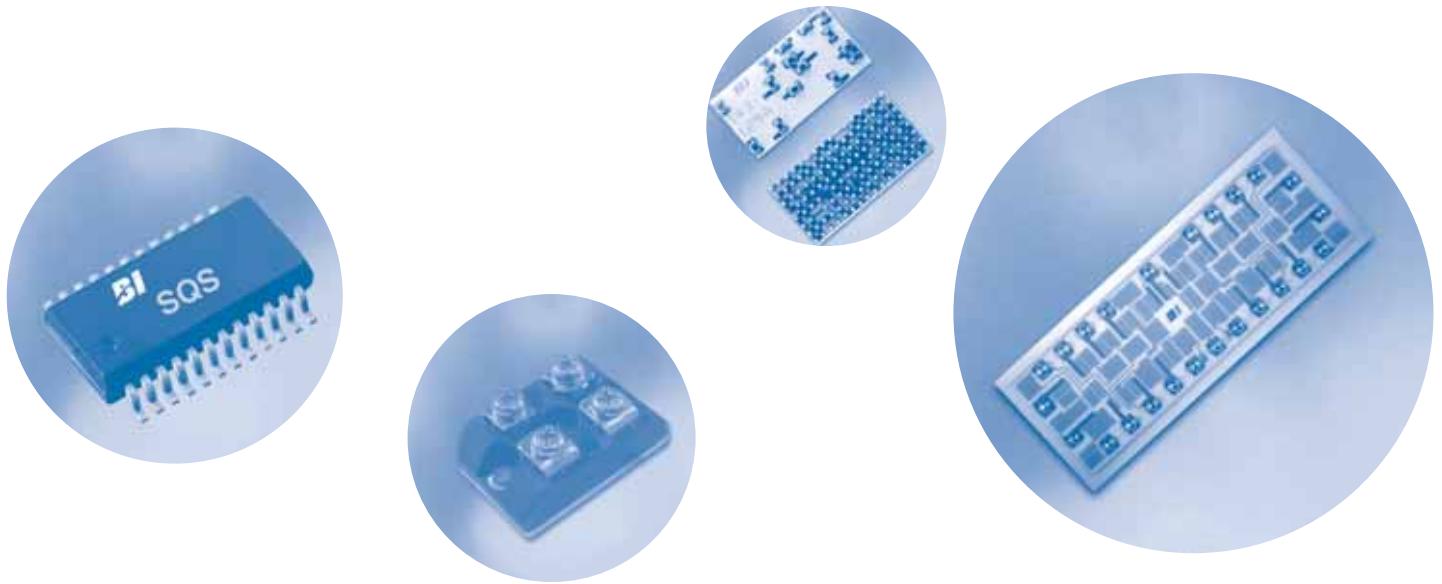


## Custom Networks



If your exact requirements for thick or thin film resistor networks are not listed in this guide, simply contact us. BI Technologies specializes in producing custom resistor and resistor-capacitor networks, engineered to meet your exact requirements.

### Custom Thick Film Networks

- Absolute tolerances to  $\pm 0.25\%$ . Don't over specify;  $\pm 2\%$  generally provides the most economical solution.
- Ratio matching of  $\pm 0.1\%$  can be achieved for resistors with 5 to 1 or smaller ratios. Specify a reference resistor and use groups of small number of resistors rather than one large group with many ratio matches.
- Absolute T.C.R. to  $\pm 50\text{ppm}/^\circ\text{C}$ .
- T.C.R. tracking to  $\pm 15\text{ppm}/^\circ\text{C}$ .
- Resistance range of  $2\omega$  to 10 Megohm.
- Limit the number of circuit crossovers.

### Custom Precision Thin Film Networks

- Available in absolute tolerances to  $\pm 0.1\%$ . For the most cost-effective solution, specify the widest tolerances possible ( $\pm 0.5\%$  is ideal).
- Ratio matching is available to  $\pm 0.01\%$ . If possible, specify ratio matches in multiple groups, rather than one large group (yields are better for groups containing only a few ratio matched resistors). Use the lowest value resistor within a group as the reference resistor. Ideal resistance values for accurate ratio matches are in the  $2\text{K}\omega$  to  $100\text{K}\omega$  range.
- For best results, limit total package resistance to less than 3 Megohm for 14 or 16 pin through-hole DIPs and 1 Megohm for 8 pin DIP and surface mount.
- T.C.R. tracking of  $\pm 1\text{ppm}/^\circ\text{C}$  is possible for resistors with nearly equal values.