

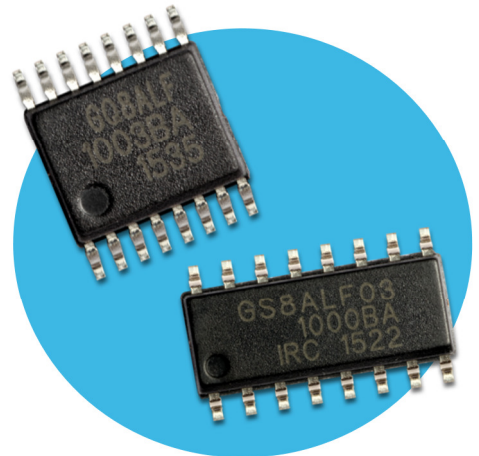
Fast Facts

QSOP-C / SOIC-C – Thin Film on Ceramic Resistor Networks

QSOP-C and SOIC-C resistor networks are high density components which combine high precision with the stability and reliability associated with the self-passivating tantalum nitride film system.

By using a ceramic substrate and a relatively large feature size, they offer better cross-talk performance than types based on silicon substrates.

Aimed at aerospace COTS and high reliability signal processing applications, the parts are optionally available with thermal shock screening.



Market Segments

- Aerospace
- Medical
- Industrial

Applications

- Flight computer
- Medical monitor
- Critical process monitor

Features

- Ultra-stable TaN resistors on ceramic substrate
- Lower cross-talk than silicon-based types
- Reliable, with no internal cavity
- QSOP16/20/24 & SOIC8/14/16/20 packages
- Isolated or bussed networks
- Up to 23 precision resistors
- $\pm 5\text{ppm}/^\circ\text{C}$ TCR tracking and $\pm 0.05\%$ ratio tolerance

Benefits

- Improved reliability under high humidity conditions reduces field failure costs
- Integrated solution saves cost of PCB space through low footprint design
- High lifetime stability avoids or reduces recalibration costs in measurement systems

Our Advantage

For circuit designers who need highly reliable, stable resistor networks we provide thin film on ceramic QSOP-C and SOIC-C which provide higher stability and lower cross-talk performance than competing technologies. Cross references are shown in Appendix 1.

BI Technologies IRC Welwyn

Fast Facts

Appendix 1 Competitor Comparison

Vishay’s ORN is a passivated nichrome version of just the SOIC 8-pin isolated part, with essentially the same specifications. GS4Axxxxxxx can be used to replace ORNAxxxxxxx.

Bourns’ 4800T is a similar product with 14 to 20 pins. However, it is in a medium width gullwing package, so some minor PCB re-design would be required for replacement by SOIC-C or QSOP-C.

Appendix 2 Search Keywords

thin film	precision	resistor network
QSOP	SOIC	high stability
tantalum nitride	TaN	integrated passive
high reliability	low cross-talk	resistor array