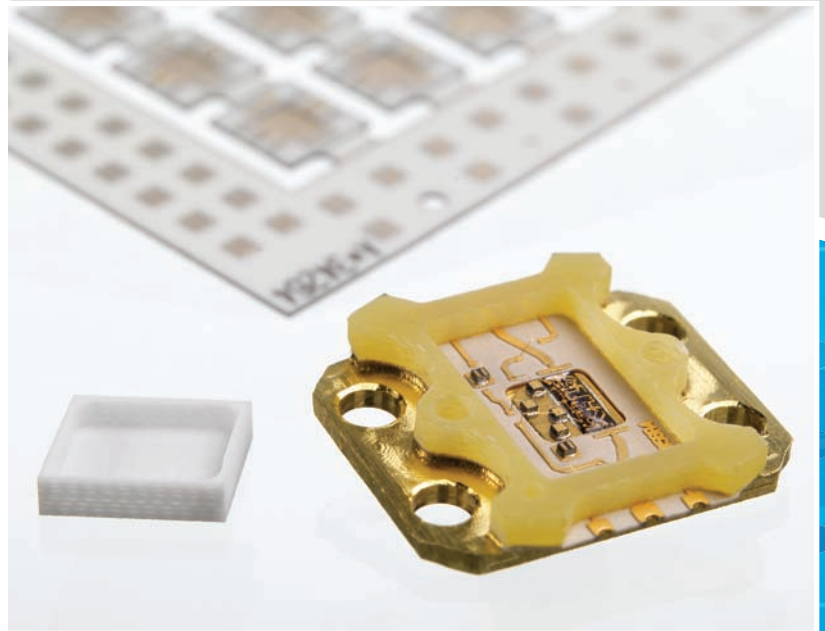


MMIC packaging solutions

Labtech Microwave has developed an innovative low cost custom packaging solution combining our established microwave printed circuit board techniques with the use of low cost organic materials for single chip & MCM applications. We have also developed a cavity package that demonstrates excellent high frequency, thermal and electrical characteristics by raising the MMIC in a precisely machined, fully copper plated cavity. The resultant optimisation of short bond wire lengths ensures minimal loss of chip performance.

Our low cost package technique offers significant flexibility, enabling us to adapt solutions for a wide range of MMIC designs, cavity dimensions and flexible footprint options. The total microwave package is complimented with our specialist in-house design, assembly and test capabilities.

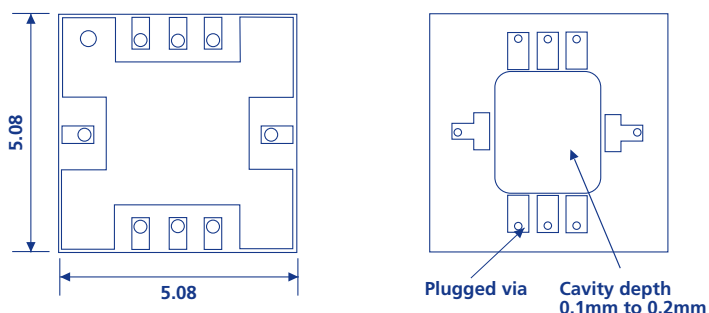


- Single chip & MCM solutions
- Competitive pricing for high and low volume quantities
- Excellent thermal performance
- Excellent RF performance at Ka band
- Low cost tooling and short lead times for new designs
- Perfect for auto assembly process
- Available as SMD, Flip Chip, BGA, drop in and flange configurations
- Flexible footprint and cavity changes available

Typical power package performance

| Characteristic | Unit | Typical Value |
|--|------|---------------|
| Insertion loss (per port) @ 40 GHz | dB | 0.25 |
| Return loss @ 40 GHz | dB | 15 |
| Isolation (input to output) @ 40 GHz | dB | 40 |
| Power dissipation (DC equivalent) | W | 7 |
| SMT assembly temperature | °C | 250 |
| Substrate material – RO4350 / RO4003 / LCP | | |

Typical power package dimensions (mm)



microwave pcb's
microwave components
mmic packaging
microwave mic assembly

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