

Gooch & Housego

Optoelectronics Packaging capability summary

enabling optical technologies

2009

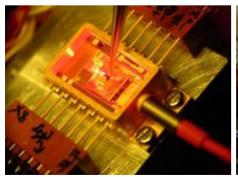


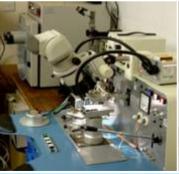
^{光技術をサポートする} 株式会社オプトサイエンス http://www.optoscience.com 東 京 本 社 〒160-0014 東京都新宿区内藤町 1 番地 内藤町ビルディング TEL:03 (3356) 1064 FAX:03 (3356) 3466 E-mail:info@optoscience.com 大 阪 支 店 〒532-0011 大阪市淀川区西中島ア-7-2 新大阪ビル西館 TEL:06 (6305) 2064 FAX:06 (6305) 1030 E-mail:osk@optoscience.com 名古屋営業所 〒450-0002 名古屋市中村区名駅2-37-21 東海ソフトビル TEL:052 (569) 6064 FAX:052 (569) 8064 E-mail:ngo@optoscience.com



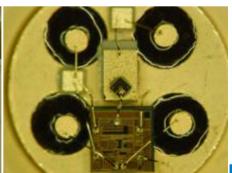
Custom Photonic Packaging

- Actives design, manufacture, test and qualification
- Dedicated expert resources with extensive experience
- Fully equipped, purpose built, antistatic facility certified to ISO 9001/2000 with cleanroom facilities











Photonics Packaging Philosophy

- Emphasis on custom products
 - Close customer co-operation
 - Experienced design team
 - Design for manufacture
- Target markets
 - Development projects
 - Research devices
 - Prototype to commercial product
 - Small/medium volume complex manufacture
 - Medical/Sensors/Comms/Military/Consumer etc
 - Provides a service that others do not support
 - · Because volumes are too small
 - Because design/build problems



High Power

Single mode and PM RGB



Manufacture

- Fully equipped for
 - R&D samples (<10)
 - Prototype development (<100)
 - Small/medium volumes (>100)
 - Route for high volume sub-contract manufacture
- Comprehensive capability including
 - Precision die attach eutectic, solders and epoxy
 - Wirebond fine/fat wire, tape, Al/Au/Cu, wedge, ball bond, deep access
 - Hybrid assembly
 - Active alignment sub micron multi-axis capability
 - Bulk optics align/fix capability
 - Special lens capability
 - Stable sub micron active attach technology
 - Micro spot welding, parallel gap welding,
 - Thermode and hot gas micro soldering
 - Induction heating systems
 - Glass sealing for hermetic feedthrough etc
 - Hermetic sealing projection welding and seam sealing.
 - Laser welding
 - Hermetic fibre feedthroughs
 - Connectorisation
 - Extensive materials and piece-parts instant availability
 - Critical process clean room capability
 - ESD control



Test and Qualification

- Gooch and Housego has a reputation for the highest quality and reliability
- Broad range of test facilities
 - Optical test
 - Leak test (gross & fine)
 - Burn-in
 - Environmental
- Equipped to undertake full Telcordia 468 and 1221 qualification programmes







Gooch and Housego Summary

Gooch & Housego is an international group specializing in the manufacture of precision optical, crystal and optoelectronic components for OEM's and research purposes. The Group offers a unique optical manufacturing and design capability making it a first choice manufacturer and technology partner for many of the photonic industry's leading OEM's and scientific institutions.

- Photonics packaging
- High performance fused couplers
- Integrated electronics/photonics module design and manufacture
- Precision Optics
- Optical Coatings
- Acousto Optics
- RF Flectronics
- Electro Optics
- Single Crystal Growth