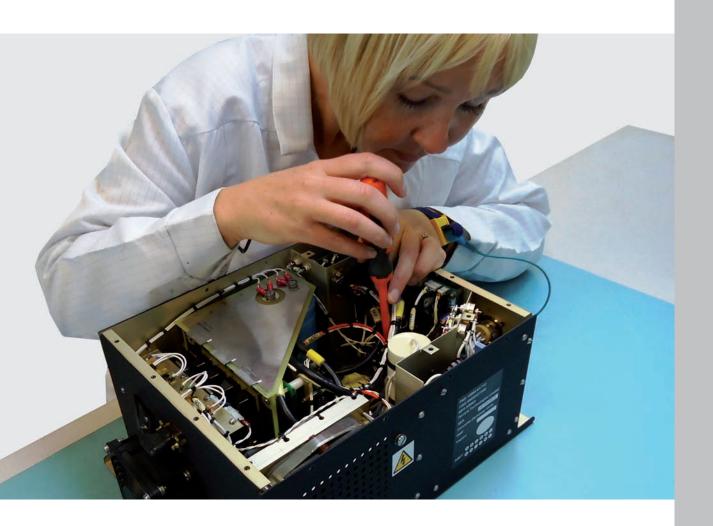
# **Manufacturing Services**

**Integrated Turnkey Solutions** 





# **Manufacturing Services**

Using the latest manufacturing technology, Ferranti Technologies provides bespoke, turnkey solutions to meet the needs of our customers.





## Experience & Expertise

Our team of highly skilled and experienced engineers enable us to achieve best practice solutions with tried and tested methodolgy. It ensures a clear understanding of your requirements and allows us to meet your needs effectively.

## New Product Introduction (NPI)

Ferranti has a dedicated team of NPI engineers working on the introduction of new products & with over 30 years of expertise & experience in design, production engineering, process engineering and quality, the NPI team provides a professional service with a seamless transition from concept design through to stable manufacture.

#### **Dedicated Customer Support Team**

In addition, Ferranti can provide a dedicated customer support team, supporting all aspects of your project, ensuring effective co-ordination & timely delivery.

#### **Product Realisation**

Manufacture can be carried out in a variety of ways, depending on the volume:

- Flow line concept for medium volume, repeat manufacture
- Cellular manufacturing assembly for more bespoke, low volume assembly

# Test & Inspection

Ferranti's skilled test engineers design and build dedicated functional test systems, ensuring high level performance verification of PCB, SRU & LRU assemblies.

#### Services Offered

- Design for test strategies
- Competitive "off-shore" bed of nail fixtures
- In circuit test, bed of nails and flying probe
- Functional test
- Dedicated rack mounted system test
- Boundary scan
- DITMCO (5000 point conductivity and insulation tester)
- Environmental Test Facility (ISO 17025)

Additionally, Ferranti will provide a report to guarantee test coverage, matching the design requirements to our test capabilities and validation of the testing parameters.

# Manufacturing Capabilities

At Ferranti, we have a range of equipment for a variety of processes:

#### **Component Technologies**

- BGA and uBGA
- Surface Mount (down to 0402 component size)
- Multilayer Flexi & Flexi-Rigid Printed Circuit Boards

#### **Surface Mount**

- DEK 265GSX Screen Printer
- Europlacer Progress 6 Placement Machine
- BTU paragon 150 reflow oven
- Intelligent SMT Trolleys
- Blundell Stencil Cleaner & Dryer
- Fritsch SMT Placement Machines STD & Fine Pitch

#### Through Hole

- SEHO MWS 8240 Wave Solder Machine
- System 2000 Solvent Batch Cleaner
- Pb Free capability (RoHS Compliant)

#### Test & Inspection Equipment

- Teradyne Z1880 Test Equipment
- SPEA 4040 Flying Probe Test Machine
- DITMCO 5000 Point Conductivity and Insulation Tester
- OMRON Automatic Optical Inspection (AOI)
- Dataman 48 Pro Device Programmer
- Goepel JTAG Hardware and Software Development Tools

#### Machining

- Matchmaker Machine
- 1/3 Micronclean Compact MK2
- Hardinge Machine Tools
- Hardinge CHNC 4 CNC Lathe

#### General

- Aqueous Technologies Trident III Wash System
- Alpha SMD2 500D Ionograph Cleanliness Tester
- Capris Laser Cable Marking Machine
- Conformal Coating Facility (dip & spray)







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# Committment to Quality

The company places a strong emphasis on continuous improvement in order to meet the high standards required by our customers and to ensure confidence in the final solution.

Effective internal processes and systems enable Ferranti to manufacture one off and repeat orders and also to provide the assurance that the customer will receive the same product, to the same high standard of quality and reliability every time.

#### Accreditations

Ferranti has developed a Quality Management System that is accredited to BS EN ISO 9001 (with TickIT), BS EN 9100, BS EN 9110 & BS EN ISO 14001.

Details of the company's full range of accreditations can be provided on request.

#### **Our Facilities**

- 20,000 ft<sup>2</sup> electronic assembly area
- Class 10000 clean air room for contamination control
- UKAS accredited test chambers for Product Environmental Stress Screening (ESS)
- Internal UKAS traceable calibration facility, maintaining the calibration status of the majority of our commonly used instrumentation.

#### **Environmental Test Laboratory**

The Environmental Test Laboratory is fully accredited by UKAS to ISO 17025, providing qualification testing and product screening.

In addition, the lab team holds many years experience and are fully conversant with all commonly used standards.

Accredited stress testing capabilities include:

- Vibration
- Shock
- Acceleration
- Temperature
- Humidity
- Low Pressure
- Salt Fog



