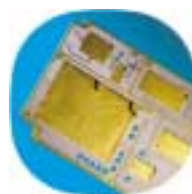




# LABTECH



WINTER / SPRING

## 2002



# NEWS



- **Royal Seal of Approval for Labtech**
- **UL Approval for Specialist Microwave Substrates**
- **European Mission 'Smacks' of Success**
- **Make a Date with Labtech**
- **Intelek Acquires New Addition to its High-tech Stable**
- **Useful Material Selection Table**
- **Just In Case You Forget!**
- **Environmental Impact Data Sheet**
- **Turnkey – MIC Assembly Launch**



## Microwave PCB & MMIC Packaging Solutions



## ROYAL SEAL OF APPROVAL FOR LABTECH

Labtech, a world leading manufacturer of high-tech microwave printed circuit boards (PCBs) for the global telecommunications industry, has received the Royal seal of approval.

HRH The Princess Royal recently visited the Welsh border headquarters of the successful company, which is part of the Inteltek Group, to formally present the Queen's Award for Enterprise 2001.

The award, in the International Trade category, is the highest honour that can be bestowed on a UK company and reflects Labtech's outstanding success in building up its export business during the last four years.

Labtech Managing Director Brian Mazonas proudly escorted the Princess Royal on a guided tour of the high tech production facilities at Presteigne. "This award means a lot to the company and its achievement reflects the hard work and commitment shown by the whole workforce during the last four years," he said.

The company's fortunes have improved dramatically since 1997, when a completely new senior management team was formed. From a position of low profitability with a turnover of less than £3 million, the company recorded sales totalling £13.5 million in the last financial year.

"The company's growth in the last four years has been outstanding," said Dr Mazonas. "Our technical and product base is very strong and we are involved in a number of major projects which will put us back on the growth path this year, after the slowdown in the world telecommunication market in the second half of 2001.

I am proud to say that Labtech is now recognised as a world leader in microwave PCB manufacturing technology."

Employing 120 people, Labtech manufactures microwave electronic PCBs and MMIC packaging solutions for major telecommunications customers world-wide. These circuits are deployed in wireless telecommunication networks, broadband data access/Internet systems, microwave automotive control systems and radar and satellite applications.

The company last year exported over 90 per cent of its sales, the vast majority going to Scandinavia, Italy and France, although impressive progress is now also being made in developing the USA market.



*The Princess Royal talks to Darren Bithell about the plating of printed circuit boards at Labtech.*



## UL APPROVAL FOR SPECIALIST MICROWAVE SUBSTRATES

Labtech is delighted to have received Underwriters Laboratory approval for softboard circuits manufactured using specialist microwave substrates RF35 and RF35P from Taconic.

Taconic's RF35 organic ceramic substrate is used extensively by Labtech's customers as it is designed for low-cost, high volume microwave and radio frequency applications.

Taconic claim that it has excellent peel strength, even in comparison to conventional epoxy material, which is critical if rework is required. It is dimensionally stable because of the use of woven fabrics in its design and

its ultra low moisture absorption rate and low dissipation factor minimise phase shift with frequency.

Bob Lowther, Labtech's Sales and Marketing Director, comments, "Receipt of UL certification for RF35 circuit material confirms Labtech's position as the pre-eminent supplier of microwave interconnect, with a knowledge of microwave substrates which is second-to-none."

"It demonstrates our responsiveness to the needs of our customers, some of whom need UL approval to sell their products internationally."

## MAKE A DATE WITH LABTECH

Be sure to make a date in your diary to visit Labtech at the following major exhibitions in Europe and the USA during 2002.

The company will be looking to meet friends old and new when it exhibits at: RF & Hyper Europe in Paris, France from March 26-28 on Stand No. G11; MTT-S in Seattle, USA from June 4-6 on Stand No 332 and the European Microwave Show in Milan, Italy from September 24-26.

For further details about Labtech's plans for the shows, please contact the company on **+44 (0) 1544 26 00 93** or visit the website at **[www.labtechcircuits.com](http://www.labtechcircuits.com)**.



## EU BROADBAND WIRELESS RESEARCH PROGRAMME

Labtech has been recruited for a high-tech European mission to power the broadband communications revolution.

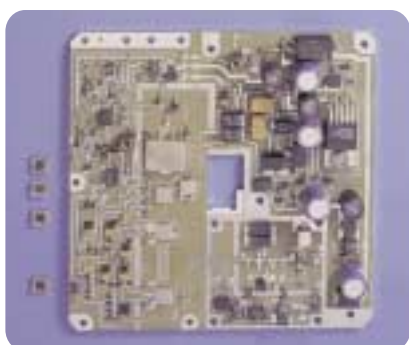
The company has secured funding from the European Union's Information Society Technologies programme as part of a three million euros project to find a way of making cheaper broadband (Multi-media Internet) communications devices.

Together with five partners - Alcatel Wireless Transmission Division in Italy, Thales Microwave, TMI (formerly Sorep), TNO Physics and Electronics Laboratory and UMS - Labtech will be developing special low cost microwave chip packaging techniques suitable for the devices.

The ultimate aim of the SMACKS (Surface Mount Assembly for Communications Ka band Systems) project is to make broadband access cheaper to bring it within the reach of more Europeans by supplying wireless communications equipment manufacturers with more affordable multicomponent subsystems.

The key issue is the ability to make transmitters and receivers that consumers can afford. The SMACKS project involves research into chip packaging and assembly technology so that the high volume manufacturing techniques used for satellite TV receivers, for example, can also be used for higher frequency broadband transmitters and receivers.

The EU predicts that the SMACKS project will provide "the groundwork for the partners to expand and become major suppliers to the wireless industry with consequent employment benefits". Longer term, Labtech will supply both power packages and microwave circuit boards to the broadband communications market.



## INTELEK ACQUIRES US SATCOM EQUIPMENT MANUFACTURER

Labtech's parent company, Intelek plc, has announced a new addition to its high-tech stable.

Intelek plc and its subsidiary Paradise Datacom LLC have acquired Sierra Networks' Satcom division for \$4.968 million (approximately £3.51 million).

Fully listed and a techMARK company, Intelek's activities include the design and manufacture of electronic components and systems for the satcom, wireless communications and in-flight entertainment sectors as well as aerospace engineering.

The acquisition of Sierra Satcom represents an important further step in Intelek's strategy to transform itself into a focused communications technology business.

It will enable Paradise to offer complementary satellite communications equipment to its existing customers as well as offering its existing products to Sierra Satcom's customers.

Intelek believes that the ability to offer a more comprehensive range of existing products will raise Paradise's position in its market place in the long term, increasing the total available market and helping it compete against larger competitors who are able to offer modems, amplifiers and block up converters (BUCs) or transceivers.

Sierra Satcom will be moved from its current base outside Boston, Massachusetts, to Paradise's North American facilities in Boalsburg, Pennsylvania.



## MICROWAVE MATERIALS

Material selection tables, showing the comprehensive list of Labtech microwave materials, are now available in PDF format on the company's website.

Labtech is 100% Teflon®/PTFE circuit orientated and uses a wide range of materials from four major suppliers, Arlon, Neltec, Taconic and Rogers, links to which can be found on the contact page on our website.

We have close links with our material suppliers and often collaborate by testing new materials and bond films.

Labtech can process all grades of Thermosets and PTFE including:

- Random Glass 2.33 DK
- Woven Glass 3.20 DK
- Thermosets 3.50 DK
- Woven Glass & Ceramic 6.00 DK
- Ceramic 10.20 DK
- Metal Backed PTFE



## JUST IN CASE YOU FORGET!

Labtech's key in house capabilities are:

- Metal backed pre and post bonded PTFE circuits
- MMIC interconnection and packaging
- MMIC assembly
- Multilayer microwave circuits
- Single sided and double sided PTFE circuits

## YOUR KEY CONTACTS IN THE OPERATIONS TEAM

Labtech continues to actively improve its levels of service from the initial technical enquiry to the quotation and after sales support. Every customer will be made aware of their account team and who the key personnel are.

Your account team contacts are:

Karen Stephens  
David Dixon  
Ray Jervis  
Wendy Nicholas

Your technical sales team contacts are:

Gary Dibbins  
Gareth Greig  
Paul Nicholas  
Audie Richardson-Noyes

For worldwide contacts and territory representatives please check our web site at



## Environmental Impact Data Sheet

An Environmental Impact Data Sheet setting out Labtech's commitment to positive environmental management is now posted on the company's website .

Taking great pride in its rural Wales location, close to the English border in an area of outstanding natural beauty, the company is committed to its employees, good relations with neighbours and efficient procurement and disposal of waste material used in the production of Printed Circuit boards.

Building on the good operational practices put in place during its formative years, Labtech is now seeking approval of its Environmental Management System to the ISO14000 standard.



## 'TURNKEY - MIC OUTSOURCING' LAUNCH

Labtech has combined its wide range of precision microwave PCB and MMIC packaging capabilities to launch a new 'Turnkey-MIC outsourcing' service to address the growing market demand for assembled high frequency MIC substrates and components.

Renowned for its innovation and customer service, the company has developed a portfolio of capabilities into a turnkey package that starts with a 'Design For Manufacturing' approach. Taking customer circuit designs, Labtech will develop an optimised tooling package suited for economic volume substrate production. Circuits are then assembled on-site in the company's newly established Class 10,000 MIC clean room.

## Labtech offers unrivalled engineering excellence and expertise:

**Design for Manufacturing Support** - From our team of specialists, we can offer advice with regards to Microwave PCB constructions; selection of PTFE laminates; MMIC packaging techniques using PTFE and MIC assembly.

**High Capability PCB Manufacture** - Post and Pre Bonded Metal Backed circuits; Precision Softboard and Mixed Dielectric Multilayers are all produced in house and with a range of plated finishes and features.

**In house Metal Machining** - Machined housings and Metal Backed PCBs are produced in Labtech's extensive machine shop that has several high speed machining centers producing a wide and varied mix of components.

**PCB Construction and Assembly** - High volume capability and experience in the bringing together of machined metal-backed components and the bonding of Microwave PCBs utilising conductive and non conductive adhesives. A mechanical assembly service is also available for connectors and embedded resistors.

**MMIC Assembly** - Housed in a Class 10,000, ESD protected clean room, Labtech assembles MMIC die using wire bonding techniques and onto a wide range of surface finishes.

**MMIC Module and Microwave Test** - An expanding service that is being developed to meet each requirement on a project-by-project basis.

