

Short Circuit

The monthly newsletter for Intellect's electronics members

intellect
REPRESENTING THE UK TECHNOLOGY INDUSTRY

June 2008

National Electronics Week

Come and visit Intellect's stand at National Electronics Week (NEW) and find out how Intellect membership can help you, over coffee and muffins. There is also the chance to win two free tickets to Intellect's consumer electronics conference: Tomorrow's Technology on Thursday 03 July 2008.

Intellect is also running a seminar with PricewaterhouseCoopers on the morning of Thursday 19 June explaining how electronics companies can take advantage of the Government's R&D tax credits scheme. In addition, on stand **J59b** we will be explaining our role in promoting the dynamic capabilities of the UK electronics sector and giving electronics companies access to new markets.

Intellect members Briton EMS and Teknoflex will also be exhibiting. Briton EMS offers a broad manufacturing service from printed circuit board assembly, right through to complete product build with turnkey



capability. They are responsible for the entire manufacturing process of a wide range of electronic and electromechanical products. Briton EMS can be found on stand J21.

Teknoflex Limited is an internationally recognised organisation offering what is believed to be the broadest range of flexible circuit technologies within Europe to date. Their bespoke interconnect solutions offer customers unique high-tech products tailored to fit in with their requirements. Teknoflex can be found at stand C48.

The event takes place between 17-19 June at Earls Court 2 in London.

To find out more visit
www.nationalelectronicsweek.co.uk

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New look for Intellect's newsletters



www.intellectuk.org/newsletters

The Bulletin

Fortnightly industry update on all aspects of the technology industry

Intellect HR Update

Employment law changes and free HR services

On Course

Regular update on Intellect's training courses

Short Circuit

Monthly newsletter for Intellect's electronic members

Switched On

Monthly overview of all the big stories from the digital communications and consumer electronics markets

Whitehall Watch

Fortnightly public affairs digest

Counterfeit components campaign gets underway

Counterfeit components have become a real menace for many UK EMS providers and OEMs. What was at first a trickle has now become a flood as the 'grey market' has taken hold. As we all know, there are a number of reasons why manufacturers are forced to turn to this grey market, but its worth recapping on them. The RoHS directive, which has meant shortages in both compliant and non-compliant parts, has forced manufacturers to look outside the franchised distribution chain. Lead times for all types of components have increased, and manufacturers must look to other sources in order to meet customer demand. The supply network for electronics manufacturing has increased in complexity. Controlling the activities of partners in this complex network is very hard, especially when pressure to cut manufacturing costs is as intense as it is. AFDEC, the trade association for franchised component distributors, has even reported cases of some western OEMs who have located facilities in China finding that their partners are surreptitiously producing at night, to lower standards, and then selling such products on the 'grey market' in

competition with them.

Low cost economies, especially China, have been

pinpointed as the major sources of counterfeits. In some parts of the developing world, it is possible to see people sitting in the street with a camping stove, removing components from cast off electronic equipment and dislodging them by hitting the board on the ground. Following superficial repair, they are rebranded and sold on. As export regulation eases, so the reach of such practices has become greater.

Cultural issues surrounding IP protection are also of concern. The concept of IP protection, as we understand it, is simply not seen in the same way in other parts of the world.



...continued on page 2

Counterfeit components campaign gets underway (continued...)

Some producers of counterfeits see it almost as a 'badge of honour' to produce goods that are what they see as almost identical to those produced by a western manufacturer. The internet itself, so often an enabling technology, has proved to be a major promotional tool for counterfeiters. Buyers and sellers now transact with little knowledge of each others organisations. This makes a counterfeiters job far easier.

There are a range of other factors that have made counterfeiting such a problem. But the question is: What do we, as an industry, do about it? We know that the root cause of the problem is out of reach. The UK Government doesn't have the jurisdiction to go after the root source of counterfeits.

This is, however, no reason to lie idle. Intellect is pleased to support the first industry lead co-ordinated campaign to address this problem. We are founding members of the UK Electronics Alliance (UKEA), which is made up of 12 leading trade associations with interests in electronics. It has a combined membership of 1,200 UK companies and an overall 'reach' of nearly 13,000. Through this organisation, the first unified and representative expression of how the UK sector can combat this problem has been formulated and, now, published.

So what do we recommend? In the first instance, the UKEA is calling on

Government to rigorously enforce existing legislation, particularly on imported goods, through HM Revenue & Customs. We estimate that there are currently two HMRC staff responsible for intercepting all counterfeit goods in the UK, including counterfeit components. Intellect and the UKEA have put the cost to the UK economy of counterfeiting at £22bn, with 14,800 jobs directly or indirectly at risk. Clearly more resource needs to be afforded to address the issue.

We would also like to see a serious effort made to look at what other countries are doing, and develop additional legislation and regulation based on their approaches where appropriate. The consequences of an undetected counterfeit component finding its way into a safety-critical system, such as public transport, are potentially catastrophic and warrant such an effort. For example, the US has recently passed a specific 'Stop Counterfeiting in Manufactured Goods Act' and also proposes changes to the US Patent Laws. US customs also funded a project to interdict counterfeit components. Entering, of all places, Alaska. Even in such a quiet point of entry, they intercepted \$70m worth of counterfeits in just over a year.

Finally, basic deterrents, such as increasing the financial penalty imposed on counterfeiters and their local collaborators in line with revenue likely to be gained should be key to any future

approach.

The UKEA will launch this campaign with a press conference to be hosted by Intellect. We will also be working with the UKEA to reach decision makers with the authority to commit the extra resources that are needed, and lobby for serious consideration of specific regulation based on that enacted in the U.S.



Of course, industry has a role to play in this and the Intellect/UKEA position paper on the issue commits us to formulating a code of best practice that commits companies to sourcing from authorised distributors or, where this is not possible, sourcing from companies that have a physical UK presence. We also want to see component manufacturers exercising greater control over their subcontractors to ensure scrap products, pilot runs and bad yield devices are disposed of beyond use. Improved traceability is a real must, with use of unique product identifiers, serial coding and E-marking.

**If you are interested in participating in this work, contact Henry Parker
E henry.parker@intellectuk.org**

Graphic PLC invests in Gemini-X Linear Plus software from XACT

Graphic PLC has announced the installation of the XACT PCB Ltd Gemini-X Linear Plus Registration System.

The purchase of the Gemini-X Linear Plus Registration System provides Graphic with a new level of registration control and the ability to accurately predict inner layer scale distortion at CAM prior to shop floor release and to link these predictions to advanced post-lamination optimizers, allowing continuous improvement of production yield and speed of output.

Paul Comer, Technical Director of Graphic said, "All areas of our business feed into a comprehensive continuous improvement plan that is reviewed regularly to ensure it is aligned to our overall business objectives - we see the installation of the Gemini-X registration system as a key part of our manufacturing objectives. With this unique ability to predict and compensate for linear distortion on complex product, we can improve our performance on current technology and prepare for the registration issues created by emerging technologies whether created by materials or feature sizes and density."

Andrew Kelley, Technical Director of XACT PCB Ltd., said, "We are excited to be working with Graphic PLC on this integrated solution, our Gemini-X Linear Plus registration system will link seamlessly into Graphic's CAM and ERP systems and X-Ray Optimiser, forming the backbone of their advanced registration system and further increasing the Crediton site's technical capability."

www.graphic.plc.uk

Prism supplies PCBs for new South African rapid transit scheme

Prism is supplying printed circuit board assemblies for rail signalling equipment which will form part of the infrastructure to support the 2010 FIFA World Cup in South Africa.

Prism has received an initial order for 400 PCBs from ERB South Africa. ERB is manufacturing rail signalling equipment for the Gautrain Rapid Rail Link project – one of the largest rail engineering projects of its kind in the world. Prism was selected to supply PCBs for the project because it is already a trusted supplier for other projects in the rail signalling sector.

David Dickin, business development director of Prism Electronics, said, "It is pleasing to see our trusted business relationships with customers paying dividends. Word of mouth is perhaps the

most effective form of advertising and we are delighted to be working with ERB to help deliver this project."

The tested PCB assemblies are essential to the 'brains' of the Gautrain rail control signalling equipment. The equipment comprises receivers, incorporating Prism assemblies, and transmitters fitted to rail track and to rolling stock.

Prism is able to support discrete projects such as this due to its flexible production processes that can accommodate timely production of modest quantities in line with the project's requirements.

The Gautrain Rapid Rail Link was given the go ahead in 2005 with the main construction of the project beginning early in 2007. It is set for completion in time for the start of the FIFA World Cup

in 2010. Originally conceived to ease traffic congestion in South Africa's



economic hub, Gautrain will link Pretoria in the north with Johannesburg's Park Station in the south of the corridor in Gauteng Province. There will also be a link to OR Tambo International Airport, which serves both Pretoria and Johannesburg. Stadia in both cities will be playing host to fixtures in the 2010 World Cup, so Gautrain will play an important part in getting soccer fans to and from the airport as well as between venues.

www.prism-electronics.com

Faraday Printed Circuits reports record sales

Faraday Printed Circuits Ltd (FPCL), based in Washington Tyne & Wear has reported record sales for the first quarter of 2008, up 6 per cent on 2007.

Even more impressive however, is the fact that both gross and net profit margins have been maintained, consolidating the strong financial base of the company.

FPCL Managing Director, Gordon Arkley attributes this healthy performance to a variety of factors, not least strict purchasing controls, all time low scrap rates due to intensive staff training, and of course the efforts of his 5 man sales team led by Steve Spence.

The prominent position FPCL now holds in this most challenging of marketplaces

has given the management team the confidence to embark on capital equipment acquisition program totaling some £500,000, supported by substantial grant funding from One Northeast.

www.faraday-circuits.co.uk

Ultra CEMS recruits new sales and marketing manager

With some 25 years experience selling in the EMS industry, Nick Mair joins the CEMs team as sales and marketing manager, to develop sales with existing customers and to lead the push for new customers.

With a strong technical background supporting years of sales experience, Nick brings a practical contribution to the interface between customer and

supplier, helping to ensure a thorough understanding between both parties from the outset.

Based in Cambridge, Nick will increase Ultra CEM's presence north of the M25 whilst also having a regular presence in Weymouth.

Nick's experience of manufacturing and sourcing in CEE and Asia brings

additional support to CEM's endeavours to offer a multi-dimensional EMS service that has a competitive advantage.

Nick can be contacted on:
T 01305 76 2175
M 07876 251 773
E nmair@ultra.co.uk

www.ultra-cems.com

**Date for your diary... Consumer Electronics Conference 2008
Tomorrow's Technology, Thursday 03 July 2008**

Plextek and picoChip partner on wireless communications solutions for military forces

Plextek, the Cambridge-based electronics and communications design consultancy, is partnering with Bath-based picoChip to work on innovative wireless solutions for military communications. These smaller, cheaper and more flexible standards-based communications solutions will offer clear benefits to field deployed military personnel tasked with setting up a secure communications infrastructure. Plextek's proven expertise is in developing cost effective defence solutions based on commercial off the shelf (COTS) technologies. picoChip's flexible picoArray architecture can support all major air-interfaces, and was explicitly designed for Software Defined Radio (SDR) applications. As such, it is well suited to military requirements such

as Joint Tactical Radio System (JTRS). Together Plextek and picoChip are able to achieve significant benefits supporting the delivery of Network Enabled Capability (NEC).

Communication is an essential function for military personnel. However, existing military infrastructure systems are often very large and power hungry making them slow to deploy and necessitating the transportation of large power sources. Plextek and picoChip's expertise will enable a much smaller, lightweight, flexible and more efficient infrastructure which is quicker and easier to deploy, possibly even ahead of the arrival of mobile forces. The solutions will be just as effective in both urban and rural

environments.

Tim Phipps, Sales & Marketing Director, Plextek comments: "The defence industry is currently striving to achieve NEC as it enables effective decision making and action through the timely provision and exploitation of information and intelligence. The wireless communications technologies we're developing with picoChip have so many diverse and widespread usage scenarios in support of NEC. These could allow mobile phone communications in remote mountain areas, or the transfer of data, images and video or even the control of unmanned aerial vehicles."

www.plextek.co.uk

Plexus announces senior director european sales

Plexus Corp. recently announced that it has appointed Niclas Detterfelt to the position of senior director european sales, to lead its sales and marketing operations across Europe.

"Our goal is to be the best at serving customers in the mid-to-low volume, mid-to-high mix segment of the EMS industry. These customers require exceptional flexibility, agility and flawless execution across an integrated global platform. Niclas brings a wealth of international sales expertise to the Plexus

team and an understanding of the EMS industry to lead our European market development," said Mike Verstegen, Senior VP Global Market Development at Plexus.

Detterfelt, who is based in Sweden, joins Plexus from PartnerTech AB, where he was Executive Head of the business unit for the industrial/telecom sector. Prior to this he worked for six years with Nokia Home Communications. "Plexus has a great reputation within the industry and I am delighted to be joining the European

operation. The year ahead looks to be an exciting one as we continue to see robust demand for

our services and as we pursue our ongoing strategy to establish our first regional presence in Central/Eastern Europe," he commented.

www.plexus.com



Intellect expands provision of market data

Intellect's Contract Manufacturing Group (EMSA) recently agreed to participate in two surveys which will give a steer on issues that are important to how they run and benchmark their business.

EMSA will be initiating a new salary survey, giving employers a benchmark against which to judge employees salary increases during annual reviews. The responses will be collected and administered anonymously, and a report compiled annually for the benefit of members. In addition, EMSA has agreed to participate in a cross trade body initiative administered by the UKEA. This

initiative is designed to address the problem of there being no comprehensive way to measure the relative health of the UK electronics industry as a whole and determine what the outlook for future is. The new survey will provide a six-monthly 'health check', focusing on overall market confidence, order book health, employment levels and factors limiting growth in orders or contacts. It is important to note that all levels of the supply chain and business models that can be classed as electronics will complete it. As such, the results will allow EMSA members to benchmark their businesses against the UK

electronics industry as a whole, and get a firm idea of where it is going in the future. Intellect and the UKEA will also be able to clearly identify our priorities in terms of influencing government, as well as European, regulation and policy.

The survey will be conducted every six months, and Intellect members who participate will receive a report detailing the results.

Contact Henry Parker for more information
E henry.parker@intellectuk.org

Shaping BERR's manufacturing strategy review

The Department for Business, Enterprise & Regulatory Reform (BERR) is reviewing its Manufacturing Strategy to ensure that it continues to meet the needs of the sector. It also wants to look at how the government can help British industry take advantage of the opportunities presented by tackling climate change while ensuring that the UK is at the forefront of developing and manufacturing new technologies.

Despite what you might read, manufacturing is still vital to the UK's prosperity. We are still the sixth largest manufacturing country in the world and the sector adds over £150 billion a year to the economy, accounting for around a seventh of total UK output. It generates some

60% of UK exports and employs three million people directly. It is an innovative sector, accounting for around three-quarters of all business R&D, and introducing new products and services into the economy. We are keen to support BERR in their view that electronics is still seen as a key segment of UK manufacturing. While the value of production in the UK has been falling, electronics is also at the forefront of "new manufacturing" and provides a good set of experiences to draw on in the next stage of development of the government's manufacturing strategy.

Already, Intellect has been singled out as an important source of information in this area, with BERR officials



coming into group meetings to discuss key issues face-to-face. Following this discussion, Intellect will be submitting a paper to BERR detailing how the manufacturing strategy could be revised to better support electronics in UK.

If you would like to be consulted on the paper's contents, please contact Henry Parker
E henry.parker@intellectuk.org

34th Annual Symposium of the Institute of Circuit Technology is a success

The 34th Annual Symposium of the Institute of Circuit Technology had a distinctly Scottish flavour. The venue was Tweed Horizons in the Scottish borders, and the keynote speaker was Dr Peter Hughes OBE, Chief Executive of Scottish Engineering, who spoke with infectious enthusiasm of the opportunities that exist in industry in Scotland.

Peter reminded the audience of the significance of Scottish manufacturing industry and its contribution to exports. How many people realised that electronics is bigger business than whisky? The key to the future success of industry lay in education and encouragement of young people. In recent years an "obsession with qualifications" had led to a disparity between what Scottish employers needed and what education and skills training youngsters could access. A university education was not an essential; the actual requirement was for a system for developing skills that met everyone's objectives and equipped individuals with abilities flexible enough to meet the needs of today and respond to the demands of tomorrow. Many routes were available for young people to fulfil their potential, the strategic expansion of apprenticeship being a practical means of filling

the skills gap amongst Scotland's future workforce.

ICT Chairman Steve Payne was confident that the UK would continue to play an important role in the innovation, design and fabrication of printed circuit boards from flexible circuits to the most complex multilayer structures, and emerging technologies such as printed electronics. He was pleased to report that membership numbers had grown steadily through the last 12 months, and an encouraging demographic was that Institute is getting "younger" in terms of average age of members.

There was an excellent programme of technical presentations from speakers of Quantum CAD, Napier University, BAE Systems Hillend, Orbotech, BPA and Intrasy Design.

A detailed review of the presentations can be found on the Institute of Circuit Technology website.

www.instct.org

News in brief

2008 A good year for tech

The technology industry is looking good, to the surprise of many people who thought general economic conditions would have a negative effect on it. The technology industry will be the best performing sector worldwide this year, according to a Citigroup survey of investors who were more bullish on tech stocks than on any other sector.

Source: Electronics Weekly

IBM aims to cool chips with water

A network of tiny pipes of water could be used to cool next-generation PC chips, researchers at IBM have said. Scientists at the firm have shown off a prototype device layered with thousands of 'hair-width' cooling arteries. They believe it could be a solution to the increasing amount of heat pumped out by chips as they become smaller and more densely packed with components.

Source: BBC

New online tool gives UK businesses clear picture of their environmental impact

Sustainable business expert Envirowise is calling on UK businesses to try out its new web-based environmental impact measurement tool. The Envirowise Indicator allows businesses, irrespective of their size or industry sector, to gain a useful indication of their company's environmental impact - and the potential financial savings that can be made by reducing it. Companies can access the Indicator free of charge by visiting the Envirowise Indicator page.

Source:
www.envirowise.gov.uk

Editor: Sarah Voller
E sarah.voller@intellectuk.org

Intellect
Russell Square House
10-12 Russell Square
London
WC1B 5EE

T 020 7331 2041
F 020 7331 2040
W www.intellectuk.org

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Intellect's monthly newsletter **Short Circuit** is distributed throughout the UK PCB and EMS industries. Sponsoring an issue means that your company logo, contact details and news article will be seen industry-wide - an effective and inexpensive promotional tool.

If you are interested in sponsoring a future edition of **Short Circuit** or have any relevant industry news that you would like to be considered for inclusion in forthcoming editions, please contact Sarah Voller on T 020 7331 2041 or E sarah.voller@intellectuk.org

Editorial should be submitted no later than the 07 of each edition month.

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Whitehall Watch

Public affairs digest

Intellect Consumer Electronics Conference 2008 Tomorrow's Technology

Date: 03 July 2008
Time: 10:00-17:30
**Venue: The Cumberland Hotel,
Great Cumberland Place,
London, W1H 7DL**



The Consumer Electronics Conference is back for the fourth year running. This year's Conference will bring together all elements of the UK consumer electronics market, including senior representatives from manufacturers, retailers, government and media stakeholders.

As energy consumption and carbon footprints become more important for consumers and business alike, and as the development and

deployment of new content platforms continues apace, Intellect's Consumer Electronics Conference will offer a unique opportunity to listen what key stakeholders see as the future of the Consumer Electronics market.

Looking at new technologies and consumer behaviours that drive the UK as the biggest technology market in Europe, this insightful event should not be missed.

Cost: Intellect members £250+VAT
Non members £350+VAT
Contact Tammy Greeno
T 020 7331 2037
E tammy.greeno@intellectuk.org

Glorious Goodwood - A day at the races

Date: 01 August 2008
Time: 11:30-17:45
**Venue: Goodwood
Racecourse, Chichester, West
Sussex, PO18 0PX**



Widely regarded as the world's most beautiful racecourse, Goodwood really is the perfect place to enjoy horse racing and socialising at its very best.

Intellect offers you the opportunity to welcome your guests in the exclusive hospitality village within the Richmond Enclosure, situated beyond the winning post. The Horseshoe Pavilions have a unique café

atmosphere with a jazz band to entertain guests between races.

To help guests increase their chances of winning, we have our own racing tipster Mike Cattermole, who will be joined by ex-jockey and Goodwood winner John Reid MBE, to give insider knowledge and tips to guests. You will have the opportunity to meet both guests and to go to the paddocks with them.

Cost: Intellect members £315+VAT
Non-members POA
Contact Tina Compton
T 020 7331 2011
E tina.compton@intellectuk.org

Intellect Annual Charity Golf Tournament

Date: 09 October 2008
Time: 08:00-17:00
**Venue: Foxhills Golf Club,
Ottershaw, Surrey, KT16 0EL**



The Intellect Annual Charity Golf Tournament offers the perfect opportunity for you to reward clients, suppliers or partners whilst contributing to charity at the same time.

This year we will be raising money for AbilityNet, a national charity helping disabled adults and children use computers and the internet by adapting and adjusting their technology.

This year, our chosen venue is Foxhills Golf Club, where you will have the opportunity to

hone your skills on the Bernard Hunt course. Named after two-times Ryder Cup captain Bernard Hunt, MBE, who still teaches at the club, this 6,892 yard course offers more than a few serious challenges for club golfers.

One of the real tests on this course can be found on the finishing hole, a dogleg of 446 yards, also known as 'Cardiac Hill'; widely considered as one of the most difficult in the country as the tee shot must carry more than 200 yards to reach the narrow fairway.

Cost: Intellect members £995+VAT (per team of four)
Non-members POA
Contact Tina Compton
T 020 7331 2011
E tina.compton@intellectuk.org