

Short Circuit

The monthly newsletter for Intellect's electronics members

intellect
REPRESENTING THE UK TECHNOLOGY INDUSTRY

July 2008

Intellect takes action on TPPBA and ROHS Directive version 2

As we've previously mentioned, the RoHS directive is being revised. It is proposed that an additional 46 substances be brought within its scope.

One of these substances is TPBBA, a flame retardant used in about 80% of all PCBs. It is interesting that there appears to be a 'disconnect' between different parts of the EU on just what, if any, threat TPBBA poses to the environment. A risk assessment study, conducted by the EU itself, found that TPBBA is in fact safe. However, it is still included in the list of substances that are proposed for restrictions under the new revisions to RoHS. Following approaches from the Bromine Science and Environment Forum (BSEF), and consultation with our own members, Intellect have lobbied the European Commissioners for Trade,

Environment & Enterprise as well as UK Ministers for Chemicals, Business and Europe. Peter Mandelson's office have replied noting their support for our position, but we await the reaction of the other ministers and commissioners who have been contacted.



If any members would like to see the details of the other 46 substances that are proposed to fall under the scope of RoHS, and a briefing on the predicted timeframe and process, please contact Henry Parker
E henry.parker@intellectuk.org

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Counterfeit components: the way forward

As mentioned in the last edition of Short Circuit, Intellect has recently taken a leading role in the launch of a campaign by the UK Electronics Alliance (UKEA) aimed at reducing the flow and impact of counterfeit electronics components on electronics manufacturers. The last eighteen months have seen a real upsurge in occurrences.

17 July saw the launch of this campaign, with coverage in all major trade titles, as well as The Guardian. It was interesting that nearly all titles agreed with the Intellect and UKEA position, except Electronics Weekly. They appear to take the view that counterfeiting is a 'necessary evil' and downplayed the idea that any concerted action could be taken on this issue. We don't disagree that it's a difficult problem to solve, but would have to say that to simply sit there and accept it seems a rather small minded position to take. EW went on the disagree with our view that counterfeit electronic goods could be costing the UK economy up £1bn. Again, we know that this seems a high number, but it also takes into account combined costs of administration, product recalls, re-work, warranty claims, loss of future business, and

perhaps even claims for consequential loss as a result of counterfeiting. Overall, for the most respected electronics trade title to take such a position was disappointing.



Other elements of the day got off to a better start. The launch event also incorporated meetings with HM Revenue & Customs (HMRC), as well as the UK Intellectual Property Office. A number of specific measures that Customs could take to intercept counterfeit components before they hit the UK were discussed. They included asking HMRC to be more proactive about contacting the holders of the IP behind any components when they suspect that a shipment could be counterfeit.

...continued on page 2

Counterfeit components: the way forward (continued...)

HMRC was also pushed to expand on the specific programme initiated by the European Semi-Conductor Industry Association (ESIA) to train UK border agents at Heathrow and East Midlands airports on what counterfeit components actually look like. The reaction from HMRC was understandably guarded, with little or no commitment to make additional resources available without a real understanding of the scale of the problem. They put the emphasis very

much on industry to request action on the part of customs. A preliminary point of agreement revolved around industry providing a provisional list of the most well known sources of counterfeits so that Customs could potentially take pre-emptive action against them. It looks as if this will be a long and drawn out process, with Adam Fletcher, Chairman of ADFEC, commenting that it could take five years to stamp out. However, the dialogue has now been established and

we are hopeful that some practical measures will be taken in the aftermath of it.



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

How to meet BT's Head of Procurement

We are pleased to announce that Neil Rogers, Chief Procurement Officer for the entire BT Group (total turnover £20bn) will be the keynote speaker at the next electronics manufacturers reception, which is confirmed for the evening of Thursday 16 October 2008.

Invitations will be going out to members and invited guests at the end of August. Neil will be explaining the process that

BT uses to procure and the requirements it has in the electronics field.

Neil Rogers became Chief Procurement Officer for BT in September 2007. Before this he was Managing Director for 21CN where he was responsible for running one of the largest programmes of its type anywhere in the world and which will impact every aspect of BT's business over the next five years. We are

also in discussions with the head of subcontract programmes for EADS Defence and Security to speak at the same event, although this is yet to be confirmed.

For more information and to attend this event, contact Henry Parker
E henry.parker@intellectuk.org

A national framework of skills provision for electronics manufacturers

Following detailed feedback from our members, Intellect has begun initial work on the creation of a national skills system for the electronics manufacturing industry. The new system will take account of two wish list factors: that manufacturers should be able to have some way of mitigating the 'double-whammy' they have to endure in terms of training costs; and that manufacturers have to pay twice for training. Once for the course and then again for lost productivity. In addition, there is currently no centralised and recognised 'quality mark' for training provision in the electronics manufacturing sector.

Solving these problems will not be easy. It is important to understand that virtually all central Government funding for upskilling existing employees is channelled through the Train to Gain scheme. Under this scheme only Level 2 or Level 3 qualifications are eligible for funding. In order to receive a 'level', and be eligible for Government subsidy a vocational training course must be accredited under the National

Qualifications Framework (NQF). As many members have found to their cost, courses that accredited employees to IPC levels, such as IPC-A-610D, are not accredited under the NQF. As such, there is currently little or no public funding available for electronics manufacturers to send their employees on courses that meet provision skills to IPC standards.

Intellect will be taking steps to ensure courses conducted to IPC standards are accredited, meaning that employers will be able to get Government subsidies, under the Train to Gain programme, to train employees with relevant skills. The obvious first step is to approach the Qualifications & Curriculum Authority (QCA) in England and Department for Children, Education, Life-long learning & skills (DCELLS) in Wales to discuss the process for gaining QCA accreditation for IPC related technical skills. A second step would be to see established training programme offered by Electronics Yorkshire training programme, which concentrates on IPC related skills, rolled out nationally. This quality assurance

process and auditing would be co-ordinated by the National Skills Academy for Manufacturing (NSA-M), alongside support from Sector Skills Council for science, engineering and manufacturing technologies (SEMTA).



Intellect has produced a paper outlining the situation and is co-ordinating all the above-mentioned bodies to achieve certification and provision across the U.K. We believe that these actions would go some way towards meeting the key deficiencies in skills provision for electronics manufacturers in the UK. SEMTA, Electronics Yorkshire, and the NSA-M have all received copies of the proposal, and the next stage will see Intellect meeting with interested parties on 23 July 2008 to discuss them.

Teknoflex invests in GenFlex™ software

Teknoflex Ltd., based in Chichester, United Kingdom, has recently purchased and installed GenFlex™ software to support the design, engineering and manufacture of flexible, flex-rigid and sculptured flex circuits.

The adoption of GenFlex™ software is part of the ongoing investment at Teknoflex to ensure the organisation is at

the forefront of technological developments within the flex circuit market place. The addition of this software further extends the current technological capabilities of Teknoflex offering important benefits in the manufacture of complex 3 dimensional circuits demanded by customers.

Mr. Brian Shorrock, Managing Director

at Teknoflex, said: "Genflex will reduce front-end time and ensure we are able to provide excellent support in design for manufacture (DFM) to our current and new customers. We chose this software due to its impressive feature array and ability to meet our needs."

www.teknoflex.com

Best practice in design

Intellect is relaunching its offering for technology product designers.

The group first met as the Product Design Forum in July 2007 and was established in recognition of the fact that product and system design is critical for the success of any technology related business, and that the future of the UK technology sector depends, to a large extent, on the successful development and exploitation of intellectual property.

The next meeting will aim to determine if there is potential for a full work programme to be established in this area.

Speakers already confirmed include Clive Grinyer, former head of design at Samsung and Orange, and now head of customer experience at Cisco in the UK. He will cover best practice in determining the overall needs of the user in a design of a technology related product. Chris Turner, of Cambridge Consultants, will

also be speaking on evolutions in ASIC Design. The meeting is confirmed for Wednesday 15 October 2008.



For more information and to attend this meeting, contact Henry Parker
E henry.parker@intellectuk.org

TopSat celebrates 1,000 days in orbit

TopSat, the micro-satellite designed and built by a QinetiQ-led consortium of British firms, celebrated its 1,000th day in orbit this week – a significant milestone for a technology demonstrator built with a nominal one-year mission life.

TopSat has shown that a satellite built for a mission cost below £14m, a

fraction of the cost of normal satellites, can successfully deliver high resolution images of the Earth quickly and efficiently. To date it has acquired more than 2,200 images for military and commercial customers and in support of disaster relief operations worldwide.

Dr David Williams, Director General of

the British National Space Centre, said: "TopSat is a continuing UK success story built on a partnership between the Government and four leading British companies. It has demonstrated that the UK is at the forefront of innovative space technologies and their applications."

www.qinetiq.com

Flex-Ability celebrates 21 years of UK manufacturing

Flex-Ability was founded in 1987 with 3 employees, and now has over 50 people. MD Dane Mills has been with the company from the start and has seen the ups and downs in the industry that have resulted in Flex-Ability being established as one of the leading flex and flex rigid board manufacturers in the UK.

"During the life of the company we have

seen many changes in the industry and our market. In order to survive and prosper we have had to be constantly alert to these changes and be able re-invent ourselves as the market dictates. We believe that we have become adept at identifying those changing needs and then filling them".

Flex-Ability predominantly serves the

defence, medical, telecoms, IT and instrumentation industries. Flex-Able to react to changing markets and technologies. Flex-Able to react to fast turn requirements. Flex-Able to satisfy our customers from design, layout, board manufacture and assembly.

www.flex-ability.co.uk

Date for your diary... Intellect Annual Charity Ball - A night at the Moulin Rouge, Tuesday 25 November 2008

Envirowise launches new water campaign

Envirowise is launching a new water campaign called Rippleffect. The new campaign calls for companies to register by 10 September 2008 to receive focussed advice and information on how to identify water usage over a six month period.

The main aim of the campaign is to provide businesses with the knowledge

they need to understand their water consumption and take steps to reduce it where appropriate.

Companies who sign up will receive:

- access to dedicated web pages which will provide you with information at each stage
- exclusive access to an online water training tool for a preview of the

online tool please click here

- dedicated water workshops for Rippleffect members which will provide support at each stage
- a certificate in recognition of your achievements
- telephone support through our advice line 0800 585794.

www.envirowise.gov.uk/rippleffect

Research and development grant opportunity for UK companies

Do you have a development project that you cannot resource? Are you interested to engage with a University to take advantage of their research capabilities? Are you considering development projects in one of the following areas:

- Healthcare or medical devices
- High frequency RF applications
- Development of Embedded Systems
- Power Management and control devices, for either efficiency, scavenging or generation
- Nanotechnologies embedded into embedded systems
- Foothill projects relating to the Grand Challenges for Microelectronics

If so, consider engaging the services of a University PhD student for up to 3.5 years for a cost of £22k (plus expenses) The Electronics KTN have been appointed as an agent, by the Engineering & Physical Science Research

Council (EPSRC) to award three Industrial CASE (Collaborative Award in Science & engineering) awards.

Companies are required to cover all expenses (eg travel and accommodation) for any time the student spends at the sponsoring company, plus expenses of the research student. In addition, the company must provide mentoring resource for the student for the project, as well as three months on site work experience.

The company can specify the research project of their choice, and work with universities to identify a suitable student. Projects are eligible to start any time from 05 September 2008 but all projects must have begun no later than 01 September 2009.

The studentships are awarded to companies who define the project and

identify the academic partner, or vice-versa. Collaborating companies will usually be in the private sector and SME involvement is particularly encouraged.



The closing date for applications is 15 August 2008 and applications will be assessed by a panel from the Board of Directors and Executive team.

Apply online at :
www.regonline.co.uk/Checkin.asp?EventId=620733

If you have any questions, please contact the Electronics Knowledge Transfer Network
E info@electronics-ktn.com

Plextek wins \$3.5 million blighter radar contract for UK armed forces

Plextek, the Cambridge-based electronics and communications design consultancy, has announced that it has been awarded a contract worth around \$3.5 million (£1.75 million) for the supply of its innovative Blighter radar systems. The electronic-scan (e-scan) ground surveillance radars are for a UK MoD urgent operational requirement (UOR). Plextek will be working alongside Ultra Electronics SML Technologies, who are lead systems integrator for the radars. Delivery of the initial units is scheduled for Q4 2008.

Blighter e-scan radars use modern solid-state electronics and have no moving parts, thereby removing the requirement for routine maintenance as well as offering dramatic improvements in reliability over traditional rotating radars. Blighter radars also offer exceptional target detection performance in rocky, mountainous terrain.

Blighter surveillance products address a broad range of security requirements in the defence, homeland security and civil/commercial markets. Blighter radars are

part of a range of advanced Plextek technologies that provide class-leading protection against both conventional and asymmetric terrorist threats.

Colin Smithers, MD of Plextek stated "We are delighted that the UK MoD has recognised the numerous technical merits of the Blighter radar and has chosen to use it for such a critical application".

www.plextek.co.uk

QinetiQ team deliver innovative 'Grand Challenge' solution

A team, led by a number of recently qualified engineers and scientists from QinetiQ's Cortex early career training scheme, has entered an innovative and highly versatile unmanned air vehicle (UAV) for the MOD's Grand Challenge – a competition designed to encourage younger engineers and scientists to champion the development of a system with a high degree of autonomy that can detect, identify, monitor and report a comprehensive range of military threats in an urban environment.

QinetiQ's Grand Challenge entry can take off vertically – so the operator is not exposed, and then transition into conventional flight to provide

range and operational duration. This design means that, in addition to being used as a 'conventional' UAV, it can go into hover mode or be landed to function as an unattended ground sensor. The sensor and imaging payload can be pre configured using a number of existing technologies to meet user requirements. It can remain on station and then take off again (unattended) and either be recovered back to base or continue to perform as a UAV or a ground sensor at another location.

Powered by twin electric motors, the airframe is extremely manoeuvrable, stable, efficient, robust and durable. Designed using commercial-off-the-shelf

(COTS) technology, it uses tried, tested and secure communications links. A low-cost solution, it is also light weight, easily scaleable from the current wingspan of about 1.5m, highly portable, and can be operated for long durations.

Open to the whole UK science and technology base, large and small companies, research laboratories and academic science faculties, around 10 entries should have made it through to the final stage of the competition and the MOD is keen to see the best solutions developed quickly into equipment for the UK Armed Forces.

www.qinetiq.com

News in brief

Return of glory days for semiconductor industry

It was an excellent May for the semiconductor market, reports Future Horizons, Europe's leading semiconductor market analyst company. "The global chip market in May 2008 was up 8.4 per cent compared with May 2007 driven by 16.8 per cent growth in the Asia Pacific region and a 10.1 per cent increase in units", said Malcolm Penn, CEO of Future Horizons, "the global chip market in April had been up 5.3 per cent compared with April 2007.

Source: [Electronics Weekly](#)

'Laser jumbo' testing moves ahead

A US military plane equipped with a powerful laser has moved a step closer to becoming a viable weapon. Engineers have started flowing chemical fuel through the laser to test its sequencing and control. The Airborne Laser (ABL) is designed to shoot down enemy ballistic missiles in the early stages of their flight.

Source: www.bbc.co.uk

Branson unveils space tourism jet

The British business tycoon Richard Branson has unveiled an aircraft in the US that will be used for his project to launch tourists into space. The high-altitude jet will act as the mothership for a spacecraft, releasing it in mid-air to take two crew and six passengers on sub-orbital flights.

More than 250 people have already paid \$200,000 (£100,000) each to be among the first making the tourist trips, which Branson predicts will take place in 18 months.

Source: www.bbc.co.uk

BAE Systems and UK MOD announce Mantis UAS

BAE Systems has entered into a jointly funded 1st phase of a programme with the UK Ministry of Defence to develop an Unmanned Autonomous System (UAS) that will help shape technology development for the UK's future UAS capability. BAE Systems will work alongside the MOD and key UK industrial parties including Rolls-Royce, QinetiQ, GE Aviation, SELEX Galileo and Meggitt.

The design and manufacture of the twin-engine Mantis and the associated ground control Infrastructure is already underway. Assembly, vehicle ground testing and infrastructure integration testing will take place later this year, with first flight currently scheduled for early 2009.

Mark Kane, Managing Director of Autonomous Systems and Future Capability at BAE Systems, said: "Mantis is another important step forward in the development of UAS capabilities in the UK. The aim is to prove that the integrated technologies on Mantis, that build on several years autonomous UAS experience within BAE Systems and the wider UK industry, can provide the tangible military capability and levels of performance required for future UK UAS Operations."

On behalf of the UK MOD, AVM Simon Bollom, DG Combat Air, commented: "Mantis is an Advanced Concept Technology Demonstrator that will provide an opportunity to exploit emerging technologies, capabilities and systems. Its rapid development will provide indicators of how we can improve the acquisition process to deliver capability swiftly into fast changing military environments. A development programme such as Mantis will also help maintain UK indigenous capabilities in this fast evolving area. We expect to see positive early results before deciding about further investment in a longer term programme."

The Mantis benefits from low-cost advanced construction techniques and a wide range of 'plug and play' systems and equipment, as well as enabling flexible external stores carriage. A triplex flight control system will give high system reliability and integrity, with full exploitation of onboard autonomy reducing operator workload and increasing system performance. It will also explore how low logistical footprint and ease of support could reduce through-life operating costs.

www.baesystems.com

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Whitehall Watch
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Intellect member information morning

Date: 12 September 2008
Time: 10:00-13:00
Venue: Intellect Conference Suite, Russell Square House, 10-12 Russell Square, London, WC1B 5EE



Learn how you can get your money's worth from your Intellect membership.

Intellect is the technology trade association which serves to represent all its members and ensure their voice is being heard. Our free information mornings have been set up due to popular demand to remind you how, as a member, you can benefit from your

membership.

There will also be the chance to hear how one of our member companies expanded their knowledge and grew their business by being a member of Intellect.

These sessions occur every month and are designed to inform you of our business offerings and how we can support you.

Cost: Intellect members: Free of charge
Contact: Francesca Sbuttoni
T 020 7331 2012
E francesca.sbuttoni@intellectuk.org

Energy and environment – is it all hot air?

Date: 22 September 2008
Time: 12:30-15:00
Venue: Council Room, One Great George Street, Westminster, London, SW1P 3AA



At the fifth of our lunchtime seminars based around the theme: Articulate, Think, Eat (ATE), Clare Hierons, Head of Low Carbon Collaboration, Carbon Trust will discuss 'Is it all hot air? Does the role of technology in enabling other sectors to improve their sustainability mitigate the sector's carbon footprint?'

Clare will begin by introducing the Carbon

Trust and its broader undertakings. She will share the five business drivers for reform, examine consumer behaviour and supplier reforms and give delegates an update on the Carbon Trust's work with the technology sector to date.

The session will be interactive, in which we encourage debate and questions to help Clare better understand differing perspectives.

Cost: Intellect members £110+VAT
Non-members: £220+VAT
Contact: Tammy Greeno
T 020 7331 2037
E tammy.greeno@intellectuk.org

Intellect Product Design Forum relaunches

Date: 15 October 2008
Time: 10:00-15:00
Venue: Intellect Conference Suite, Russell Square House, 10-12 Russell Square, London WC1B 5EE



Intellect is pleased to invite members to the next meeting concerning 'Product Design', a dedicated interest group for anyone with an interest in the field of technology product design. Formed in 2007, the group focuses on formulating best practice in technology product design as well as the discussion of the relative benefits of emerging enabling technologies.

This meeting of the Product Design Forum will

follow two differing work strands. The morning session will focus on three key areas:

- effective integration of the needs of end-users in the design process
- innovations in micro-electronic design
- emerging Enabling technologies

The afternoon session will be based around a roundtable discussion for Intellect members and invited guests, and will seek to establish the key workstreams for the Product Design Forum moving forward.

Cost: Intellect members Free of charge
Contact: Henry Parker
T 020 7331 2019
E henry.parker@intellectuk.org