The European Institute for the PCB Community

EIPC SPEeDNEWS

Issue 24 - November 2019

NEWS FROM GERMANY

Productronica confirms its position as the world's leading electronics trade fair

- **44,000 visitors**
- **More exhibitors and floor space**
- **Successful premiere of "Accelerating Talents"**

Over 1,500 exhibitors from 44 countries presented innovations from the fields of electronics production and development.

The trade fair covered trends such as the smart factory and smart maintenance and also looked at how to attract more young professionals and specialists. In addition to "Accelerating Talents"—a platform for students and young professionals—visitors to special shows such as the "3D AOI Arena" and the "Smart Maintenance Pavilion" were given insights into the automation of electronics production.

According to Falk Senger, Managing Director of Messe München, world premieres from companies such as Fuji Europe or Posalux were not the only thing that made the trade fair a success. "We're delighted to have increased the number of exhibitors and the exhibition space yet again this year. productronica has once again proven that it is the most important trade fair for electronics production."

Rainer Kurtz, Chairman of productronica's Advisory Board and Chairman of Kurtz Holding, looked back on four successful days: "The large number of international visitors shows the esteem in which productronica is held in the various electronics production markets. Given the numerous promising discussions, we're optimistic that the sector will achieve growth in the long term."

Thilo Brückner, Managing Director of VDMA EMINT, also expressed his satisfaction: "productronica 2019 was a tremendous success once again for the member companies. Despite a subdued overall economic situation the electronics manufacturing industry is expecting continuously rising sales revenue and reports of busy trade fair booths. The Hackathon@productronica was a great opportunity to successfully bring together young professionals and the mechanical engineering industry.

As far as the visitors' overall verdict is concerned, productronica fared even better this year. According to a survey carried out by the market research institute Gelszus, 98 percent rated

the event as excellent to good. In addition, 97 percent of the visitors surveyed said that productronica had lived up to their expectations as regards innovations. This too is an increase on the previous event.

In total, 44,000 visitors from 96 countries came to Munich. In addition to Germany, the top countries for visitor numbers were (in this order): Italy, Austria, Switzerland, France, Russia, Great Britain and the Czech Republic.

New format—Accelerating Talents
In order to make students and young professionals more aware of the wide range of activities in the field of electronics production, productronica launched the "Accelerating Talents" format. This platform for young professionals included various segments such as a Career Center, Talent Gateway, Education Path and Talent Stage.
The highpoint was the 48-hour hackathon which was organized by Messe München together with the VDMA and the Fraunhofer Institute for Reliability and Microintegration (IZM). The exhibitors Komax and Schleuniger took part in the first productronica hackathon as sponsors and supervisors. The personnel departments of the two companies along with Fuji Europe made full use of the recruiting opportunities during "Accelerating Talents".

Premiere for productronica Fast Forward—the start-up platform powered by Elektor
After the success of "electronica Fast Forward" in 2016 and 2018, the platform for electronics start-ups featured at this year's productronica for the first time The innovations ranged from contactless pick-and-place machines to AI-supported gesture control. Around 40 young companies applied to take part. Ten of these start-up companies were chosen to present their products at productronica.

Around 80 entries for the productronica Innovation Award
For the third time now, Messe München teamed up with the trade magazine productronic to present this year's productronica Innovation Award.

Out of the 80 or so entries, the following companies won in the six cluster categories: Limata in the PCB & EMS cluster, Seho Systems in the SMT cluster, ASM Amicra in the Semiconductor cluster, Zoller + Fröhlich in the Cables, Coils & Hybrids cluster, F&S Bondtec in the Future Markets cluster and Vision Engineering in the Inspection & Quality cluster.

productronica and electronica are held in alternating years, making Munich the world's most important meeting place for the electronics industry. The next electronica will take place from November 10 to 13, 2020, while the next productronica will be held from November 16 to 19, 2021

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NEWS FROM THE UK

Circuit Tech makes some changes

Worthing, West Sussex, England – As the result of an expanding customer base, Circuit Tech Group have now re-structured to form two new divisions.

Circuit Tech International will be headed by CEO Andy Prince, who will take charge of sales in Europe, India and the USA. Andy has been active in the PCB industry for the last 40 years, and claims that it may be time for someone else to squeeze under machinery on hard and cold floors.

To that end he has established **Circuit Tech Machinery Limited**, who will have the more nubile Jeff Cox and Derek Walters to look after installations and after-sales service.
Contact - jeff@ct-machinery.co.uk

With 20 lines installed in the UK, and five more going to the West Coast of the USA, Circuit Tech continue to provide bespoke wet processing solutions in an industry where volume has given way to value, and they meet their customers unique requirements with something more tailor-made than off-the-shelf.

Andy Prince may be contacted by 'phone on - +44 7703 188144 or andy@ct-int.net

Ventec International appoints Anthony Jackson as General Manager UK

Ventec International Group Co., Ltd. has appointed Anthony Jackson as General Manager UK, with responsibility for managing the Group's customer service & technical support office and warehouse operations in Great Britain.

Effective December 1st, Anthony will report to COO Europe & Americas, Mark Goodwin. Whilst overseeing Ventec's UK operations & warehousing facilities, Anthony will work seamlessly within Ventec's global network of operations to continue to drive the company's growth trajectory through its fully managed and controlled supply chain solution.

Anthony joins from European PCB Manufacturer Amphenol-Invotec, where he was a core member of the senior management team responsible for strategy development & execution including CAPEX planning and implementation. During the previous 16 years at the

Tamworth site, he held several key roles within the company including Technical Manager, Product Assurance Manager & Quality Manager. Anthony gained his 30+ years' experience in the printed circuit board and electronic manufacturing sectors in Operations-, Technology- and Manufacturing-roles at companies including Manchester Circuits, Viasystems and DDI Thomas-Walter.

Mark Goodwin, COO, said: "Anthony brings a great breadth of experience to our operations, with a complete understanding of all elements of the supply chain. His considerable expertise in operations & technical management will be critical in continuing to build and strengthen our reputation for meeting and exceeding the expectations of our many customers, particularly for high reliability in the mil/aero sector of our business."

Anthony commented: "I am excited to be taking on this role at a time when Ventec is fast becoming a clear market leader for PCB base material technology. In the UK and across the world, Ventec has unrivalled skills and experience in helping businesses achieve perfectly engineered solutions that drive success today and in the future. I look forward to working with a fantastic team to deliver exceptional service and technology value to our clients."
For more information about Ventec's solutions and the company's wide variety of products, please visit www.venteclaminates.com

Microelectronics Packaging for Harsh Environments"

An IMAPS-UK Conference & Exhibition

covering applications for:

Space, Defence, Aerospace & Transport, Medical, Energy & Exploration

28 November 2019, Satellite Applications Catapult, Harwell, UK

The Conference will have 10 Technical Presentations with Sessions on:

- ***Applications & Requirements***
- ***Components & Materials***
- ***Design, Manufacturing & Processes***
- ***Reliability & Ruggedisation***

This event will also have a Table-Top Exhibition from related Companies

All the event details are now on the website www.imaps.org.uk
Registration is now open - use the www.imaps.org.uk on-line system to book your place.
For any other details or information please contact:

IMAPS-UK Secretariat
58a Maudlin Drive, Teignmouth,
Devon. TQ14 8SB UK
Tel: +44 0131 2029004
e-mail: office@imaps.org.uk

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NEWS FROM THE EIPC

New Board Member for EIPC

During Productronica in Munich last week, EIPC elected a new Board Member, Mr. Stig Källman from Ericsson.

We asked Stig for his comments, and his response was thus:

" When I first walked into the PCB shop in Kümla back in 1980 as a newly employed drill and rout operator I was taken by surprise by the complexity to combine 3 different processes on a piece of plastic with copper clad on. The mechanical process of drilling and routing, the chemical process of plating and etching and finally the third of a graphical process to make all kinds of patterns looked unfathomable.

I heard about the specifications as IPC and the common Nordic at the time PERFAG. Today we are not producing any PCB´s within Ericsson and yet not buying any in Europe, all is now produced in Asia. But with the knowledge of the process steps in our small shop in Kumla (Sweden) versus the magnitude of the giant factories in Asia the impact of the knowhow comes more and more important.

Some years ago I applied to visit my first EIPC conference in Europe to take part in the network of the business people like myself are cherish the industry to learn more about the new processes and equipment's available on the market and the input of process improvements possible for PCB design. The understanding of the processes and understanding the PCB language is key success for the ability to communicate to manufacturers that do not have English as their first language.

So now after soon 40 years in the PCB business given the opportunity to take part of the EIPC board of Directors makes me excited and thrilled but also humble for my legacy.

I´m so looking forward to collaborate here"

Thank you, Stig.

STIG KÄLLMAN. Senior Engineer PCB, BNEW DNEW BI BHE PCB PCB Design, Ericsson, Telefongatan 26 692 29 Kumla, Sweden Phone +46107110812 Mobile +4670558448 Office +46107110812 stig.kallman@ericsson.com www.ericsson.com

The Board of EIPC now comprises the following people, who were elected, plus four in the reserve list who will be elected in February 2020:

Christian Behrendt, Ilfa GmbH, DE: Since 2015 Elected
Walt Custer, Custer Consulting Group, US: Since 2007 Elected
Martyn Gaudion, Polar Instruments, GG: Since 2013 Elected
Emma Hudson, Gen3 Systems, UK: Since 2015 Elected
Stig Källman, Ericsson, SW: Since 2019 Elected
Mikko Montonen, Aspocomp, FI: 2014 Elected
Alun Morgan, Ventec International Group, TW: Since 2011 Elected
Oldrich Simek, Pragoboard, CZ: Since 2010 Elected
Paul Waldner, MIE, DE: Since 1998 Elected
Hubert Zimmermann, Dyconex, CH: Since 2010 Elected

Reserve:
John Fix, Taiyo America Inc, USA: Since 2015
Dr. Michele Stampanoni, Cicor, CH: Since 2013
Frando v.d. Pas, MacDermid Enthone, NL: Since 2010
Jean-Claude Roth, CCI Eurolam, FR: Since 2010

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ELECTRONIC INDUSTRY NEWS

Brain Implant Mobilises Tetraplegic

Seemingly the stuff of science fiction, a laboratory in Grenoble, France, has developed an implantable wireless device which has enabled a 28-year old tetraplegic patient to walk and control both arms using a brain computer interface and exoskeleton. In the long term, this technology is expected to give greater mobility to individuals with severe motor disabilities. Tetraplegia is caused by a lesion on the spinal cord that prevents the nervous system from controlling all four limbs. To return mobility to patients with this disability, medical doctors, physicians and researchers at Clinatec, the CEA laboratory in Grenoble operated within Grenoble university hospital, have developed a device to control a four-limb exoskeleton that records and decodes brain signals. The device, developed at CEA, is an implant; it records brain activity in real-time and those impulses are used to drive the exoskeleton. For the first time, the tetraplegic patient was able to walk and control both arms using this neuroprosthetic which records, transmits, and decodes brain signals. The results of the clinical study under the Brain Computer Interface (BCI) Project at Clinatec were published last week in The Lancet Neurology journal.

Kaspersky Lab Develops Anti-Drone System

Kaspersky Lab, a Russian IT company, has unveiled a system that can protect a corporate or household owner's territory against drone intrusion, Nplus1.ru reported. The new system is said to be able to spot an approaching drone using cameras, radar, lidar or microphones, identify the type/model of the drone, and send towards it radio noise that disrupts its connection with the operator and causes it to land. The solution can monitor a range of objects simultaneously; however, one neutralization station can only disrupt the operation of one drone that flies singly, or several of those if they fly in a pack—it's because the system's antennas create a narrowly channelled signal.

(Welcome news for British Airports Authority!- Ed.)

SoftAtHome and Qualcomm Technologies Team up to Transform Home Gateways into 5G-Ready Services Platforms

SoftAtHome (G22), a leading software company for connectivity, pay TV, smart home and analytics today announced that SoftAtHome software products can be integrated and supported on the Qualcomm® Networking Pro 1200 platform, and are on display in both Companies booths at BBWF 2019. The Qualcomm Networking Pro 1200 platform is designed

to offer the most complete set of Wi-Fi networking capabilities for today's complex and densely populated connected home environments. With SoftAtHome's connected-home products (Connect'ON, Wifi'ON, Secure'ON and Eyes'ON) integrated, the combined solution can deliver bestof-breed ultra-broadband services and wireless connectivity solutions. These include advanced data analytics available to broadband carriers and deployed in a wide range of carrier gateways and extenders managed by SoftAtHome software. Samsung Electronics Develops Industry's First '12-Layer 3D-TSV' Packaging Technology Samsung Electronics has also secured semiconductor packaging technology that will distance itself further from its competitors. It developed '12-layer 3D TSV (Throughsilicon via)' technology that increases the capacity of a memory while maintaining the size of a chip.

Samsung Electronics has developed the industry's first 12-layer 3D-TSV technology.

This technology stacks and interconnects 12 DRAM chips that have the thickness of less than half of the thickness of a paper so that they can exchange electric signals with each other. This technology is mostly used for packaging HBMs (High Bandwidth Memory). Unlike current DRAMs, HBM is directly attached to the side of a CPU or a GPU and helps with processing information. Its major role is to reduce power consumption and increases operation speed of a CPU.

As a result, next-generation HBM needs to implement high capacity even through limited chip size. 8-layer 3D-TSV was the highest number of layers until Samsung Electronics has come out with 12-layer 3D-TSV technology. Through 12-layer 3D-TSV technology, capacity of a HBM is now increased by 1.5 **times while the size of a chip remains the same.**

China says it will strive to reach 'phase one' trade deal with U.S.

BEIJING (Reuters) - China will strive to reach an initial trade agreement with the United States as both sides keep communication channels open, the Chinese commerce ministry said on Thursday, in an attempt to allay fears talks might be unravelling.

China is willing to work with the United States to resolve each other's core concerns on the basis of equality and mutual respect, and will try hard to reach a "phase one" deal, Gao Feng, spokesman at the ministry, told reporters.

"This is in line with the interests of both China and the United States, and of the world," Gao said.

Economists warn that the prolonged trade dispute between China and the United States is escalating risks to the global economy by disrupting supply chains, discouraging investment and dampening business confidence.

Completion of a phase one deal could slide into next year, trade experts and people close to the White House told Reuters previously, as Beijing presses for more extensive tariff rollbacks and the U.S. administration counters with heightened demands of its own.

China has invited top U.S. trade negotiators for a new round of face-to-face talks in Beijing, the Wall Street Journal reported on Thursday, citing unnamed sources, adding Beijing hopes the round of talks can take place before next Thursday's Thanksgiving holiday in the United States.,U.S. officials have indicated they would be willing to meet in person but have not committed to a date, the report said, and they would be reluctant to travel for the talks

unless China makes it clear it would make commitments on intellectual property protection, forced technology transfers and agricultural purchases.

Global equities retreated on Thursday due to concerns that the 'phase one' deal would be delayed. The trade jitters also sent the 10-year U.S. Treasury yield down to near its lowest levels in three weeks. The Chinese yuan also softened against the dollar.

Officials from Beijing had suggested that Chinese President Xi Jinping and U.S. counterpart Donald Trump might sign a deal in early December.

Some experts said the next date to watch was Dec. 15, when U.S. tariffs on about $156 billion in Chinese goods are set to take effect, including holiday gift items such as electronics and Christmas decorations.

In a dinner speech in Beijing on Wednesday, Chinese Vice Premier Liu He said he was "cautiously optimistic" on a phase one deal, Bloomberg News said, citing people who attended the event ahead of a forum organized by Bloomberg LP.

Liu, China's chief negotiator at the trade talks, separately told one of the attendees that he was "confused" about the U.S. demands, but was confident the first phase of a deal could be completed nevertheless, Bloomberg added.

News from WECC members

WECC World Electronic Circuits Council

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NEWS FROM THE IPC

IPC Welcomes Alison James as New Senior Director, Europe

IPC -- Association Connecting Electronics Industries® announces the addition of Alison James as senior director, Europe.

In this role, James will work closely with IPC's European membership as well as European government officials, institutions and public policy stakeholders. Based in Brussels, she will represent IPC and the electronics manufacturing industry on issues including environment, health, and safety; workforce skills; and trade policy.

James comes to IPC following a more than 20-year career leading European public affairs for the Motion Picture Association and Eastman Kodak, in addition to senior roles with APCO Worldwide and the Association of Commercial Television. Prior to these roles, James served as a media and communications consultant to the European Commission.

"Alison brings strong policy, public affairs and communications skills and experience to her position at IPC," said Chris Mitchell, IPC vice president of global government relations. "With decades of experience engaging with European government officials and institutions, Alison has successfully navigated and influenced and strengthened European policies that have impacted the manufacturing sector. We are thrilled to welcome Alison to the IPC team, and we look forward to the contributions she will make to the electronics industry."

James can be reached at AlisonJames@ipc.org.

North American PCB Industry Growth Continues and Outlook is Positive

IPC Releases PCB Industry Results for October 2019

IPC have announced today the October 2019 findings from its North American Printed Circuit Board (PCB) Statistical Program. Sales and orders in October continued to outpace last year. The book-to-bill ratio rose to 1.11.

Total North American PCB shipments in October 2019 were up 6.2 percent compared to the same month last year. Year-to-date sales growth as of October is 6.9 percent ahead of the same period last year. Compared to the preceding month, October shipments decreased 8.9 percent.

PCB bookings in October increased 2.2 percent year-over-year. Year-to-date order growth is up to 2.9 percent. Bookings in October increased 9.6 percent from the previous month.

"Business for the North American PCB industry continues to outpace last year's performance," said Sharon Starr, IPC's director of market research. "The spike in the book-to-bill ratio to a 19-month high reflects the last three months' recovery in bookings. These results lay the groundwork for continued sales growth in the next two quarters."

Detailed Data Available

Companies that participate in IPC's North American PCB Statistical Program have access to detailed findings on rigid PCB and flexible circuit sales and orders, including separate rigid and flex book-to-bill ratios, growth trends by product types and company size tiers, demand for prototypes, sales growth to military and medical markets, and other timely data. PCB companies that are IPC members doing business in North America are invited to contact marketresearch@ipc.org for information about participating in 2020.

Interpreting the Data

The book-to-bill ratios are calculated by dividing the value of orders booked over the past three months by the value of sales billed during the same period from companies in IPC's survey sample. A ratio of more than 1.00 suggests that current demand is ahead of supply, which is a positive indicator for sales growth over the next three to twelve months. A ratio of less than 1.00 indicates the reverse.

Year-on-year and year-to-date growth rates provide the most meaningful view of industry growth. Month-to-month comparisons should be made with caution as they reflect seasonal effects and short-term volatility. Because bookings tend to be

more volatile than shipments, changes in the book-to-bill ratios from month to month might not be significant unless a trend of more than three consecutive months is apparent. It is also important to consider changes in both bookings and shipments to understand what is driving changes in the book-to-bill ratio.

IPC's monthly PCB industry statistics are based on data provided by a representative sample of both rigid PCB and flexible circuit manufacturers selling in the USA and Canada. IPC publishes the PCB book-to-bill ratio at the end of each month. Statistics for the current month are normally available in the last week of the following month.

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INTERNATIONAL DIARY

HKPCA Exhibition
2-4 December
Shenzhen, CN

2020

EIPC Winter Conference Rotterdam, NL
Visit Terminals ECT Port Rotterdam
13 & 14 February
Rotterdam, NL

SMT Hybrid Packaging
5-7 May 2020
Nurnberg, DE

EIPC Summer Conference Örebro, SE
Visit Ericsson 5G Test Centre
16 & 17 June
Örebro, SE

ECWC15, WECC World Electronics Circuits Council
30 November-2 December
Shenzhen, CN