



The European Institute for the PCB Community

EIPC SPEeDNEWS

*The Weekly On-Line Newsletter from the European Institute of Printed Circuits.
Issue 9 – March 2020*

NEWS FROM EIPC

POSTPONEMENT OF EIPC SUMMER CONFERENCE 2020

Dear Colleagues,

You will not be surprised to hear from us that we have decided to postpone our Summer Conference this year. There remains much that is unknown about COVID-19, and whilst the summer seems a long way off the projections are that the pandemic will only abate in much of Europe during the early part of that time of year.

We are talking to our hosts and the hotels on possibilities, and once we have some revised dates we will be writing to you again.

Wherever you are, stay home and stay safe, and we look forward to seeing you all again when it becomes possible to do so.

With our very best regards,

The EIPC Team

WE LAUNCH OUR NEW WEBSITE!

Visitors to our website www.epc.org will note that we have totally re-designed this happy place, bringing easier access, updated information on membership, and links to matters of interest and import.

With Europe struggling to cope with the outbreak of the COVID-19 Virus, normality is taking a back seat for what is hopefully a brief period. EIPC are planning to move the Summer Conference from June to the Autumn, albeit in the same place and with the same format as originally planned. More news on this once the details are known.

We hope you will approve of the changes we have made, they have to look good and they have to perform – a bit like us, really!

The EIPC Team



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NEWS FROM CHINA

ALLPCB Podcast is Now Online

In view of the continued spread of COVID-19 virus and the health concerns related to it, leading PCB services company, [ALLPCB](#), has now started its own online radio podcast station to offer customers and its staff with proper assistance regarding various PCB services and solutions. The **ALLPCB Podcast** contains of three parts: news broadcasting, local life tips and songs picking station.

News broadcasting aims to provide employees with an information platform of the latest domestic and international current events as well as new development trends of the electronics and PCB industry. Local life tips are pretty practical and intimate, as all the employees live in Hangzhou. Its content covers all aspects of normal life. It's hoped that employees own happier life while working happily. The Songs picking station is the practice of the original intention of the Podcast, creating a communication platform for employees. Employees can pick songs for colleagues or themselves to send good wishes.

The ALLPCB Podcast, as a unique cultural ceremony of ALLPCB, is the important embodiment of corporate culture construction and a vivid propaganda of corporate values. The essence of corporate culture is to emphasize the value of person, paying more attention to human factors, and tapping human potential at higher levels.

According to the company, the core value of an enterprise is the embodiment of its corporate culture, which means clear principles. In September 2019, following the footsteps of Alibaba's new Six Principles, Mr. Zhou Bangbing, Chairman of ALLPCB, proposed new ALLPCB "Five Views": Be motivated virtuously equipped with sincere deed. Strive harder than anyone else. Always excel past achievement. Spare no effort, whatever the result is. Simplicity generates happiness. Taking the opportunities of 5G outside, equipped with

sincere and firm corporate culture construction inside, it is believed that ALLPCB Era is coming soon

[ALLPCB](#) is an ultra-fast PCB super factory as well as an internet-based manufacturing company, committed to building an electronic collaborative manufacturing service platform. It offers professional one-stop service, including PCB prototype, PCB assembly, and components sourcing. Since its establishment, it has reconstructed the traditional PCB industry through data-driven technology



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NEWS FROM GERMANY

ISOLA Huizhou Voids team won the first prize at the Lean Contest China

On December 14, 2019, the Huizhou Lean Team placed first out of 1,200 participants at the Lean Contest in China (including the Special Administrative Regions of Hong Kong and Macau).

The prestigious event was organized by the Lean Institute of Guangzhou and sponsored by the Department of Industry and Information, as well as the Manufacturing Association of the Guangzhou province. The event was represented by participants and experts from the automotive, electronics, medical and other manufacturing industries throughout China.

The journey to the prestigious December event was not easy, but the Isola Huizhou team found the way by winning the top prize from the Lean Contest of Pearl River Delta Area in October 2019.

Their project “Reduce 50% Laminate Void Defects by Optimizing Process” captured the top prize at this event and gained the recommendation by the organizers to represent the region at the December event held in the Guangzhou province. The contest showcased the passion and perseverance of the team members and also helped Isola gain the respect and recognition as an organization which truly embraces the lean culture.

Additionally, participating in this prestigious contest helped the Huizhou team expand communication to the outside, set the benchmark (both internal and external) for the level of continuous improvement projects and set the tone for 2020.

Congratulations to the Huizhou team!



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ELECTRONIC INDUSTRY NEWS

Roll-to-Roll Printed Flexible Electronics Market to Be Worth \$18.3 Billion by 2025

According to a new market research report published by [Research And Markets](#), the global roll-to-roll (R2R) printed flexible electronics market is estimated to be valued at USD 7.2 billion in 2020 and is projected to reach USD 18.3 billion by 2025, growing at a CAGR of 20.5% between the period.

Some of the key factors driving the growth of this market include, development of compact and lightweight electronic devices and circuits using roll-to-roll (R2R) printing; rise in global demand for energy-efficient, thin, and flexible roll-to-roll (R2R) printed consumer electronics; significant cost advantages offered by roll-to-roll (R2R) printing used for manufacturing electronic components and devices, and increased use of flexible electronics in healthcare applications.

Roll-To-Roll (R2R) Printed Flexible Electronics Market for Screen Printing Technology Expected to Hold the Largest Share

Roll-to-roll (R2R) printed flexible electronics market for screen printing technology expected to hold the largest share during the forecast period. The growth of the screen printing segment of the market can be attributed to the increased use of screen printing technology for manufacturing displays and sensors. Screen printing is the most commonly used printing technology for the development of smartphone and laptop displays; sensors; and PV cells; among others, which require precise thin and thick printed lines on substrates.

Aerospace & Defense Segment of the R2R Printed Flexible Electronics Market Projected to Grow at the Highest CAGR

The aerospace & defence segment of the R2R printed flexible electronics market is projected to grow at the highest CAGR during the forecast period. Printed electronics are largely being adopted in the aerospace & defence industry owing to their lightweight, less complexity, and high reliability, which ultimately results in their low maintenance requirements. Moreover, R2R printed electronics technology reduces wiring in different systems used in aircraft that include in-flight entertainment systems and aircraft structural health monitoring systems.

APAC is Estimated to Account for the Largest Share of the Overall Roll-To-Roll (R2R) Printed Flexible Electronics Market

Countries such as China, Japan, South Korea, and Australia are major contributors to the growth of the R2R printed flexible electronics market in APAC. Factors such as the adoption of innovative technologies and the increased popularity of advanced consumer electronics are driving the growth of the R2R printed flexible electronics market in this region. APAC is a manufacturing hub for electronic devices and components. The growth of the R2R printed flexible electronics market in APAC can be attributed to the large-scale production of electronic components and increased investments in R&D activities related to printed electronics in the region.

Despite setbacks, coronavirus could hasten the adoption of autonomous vehicles and delivery robots

KYLE WIGGERS@KYLE_L_WIGGERS MARCH 20, 2020 6:30 AM

This week, nearly every major company developing autonomous vehicles in the U.S. halted testing in an effort to stem the spread of COVID-19, which has sickened more than 250,000 people and killed over 10,000 around the world. Still some experts argue pandemics like COVID-19 should hasten the adoption of driverless vehicles for passenger pickup, transportation of goods, and more. Autonomous vehicles still require disinfection — which companies like Alphabet's Waymo and KiwiBot are conducting manually with sanitation teams — but in some cases, self-driving cars and delivery robots might minimize the risk of spreading disease.

Robotaxis

In a climate of social distancing, when on-demand services from Instacart to GrubHub have taken steps to minimize human contact, one factor in driverless cars' favour is that they don't require a potentially sick person behind the wheel. Tellingly, on Monday, when

Waymo grounded its commercial robotaxis with human safety drivers, it initially said it would continue to operate the driverless autonomous cars in its fleet.

“People understand in theory that [autonomous vehicles] will reduce the spread of infection by allowing for social distancing,” said Amit Nisenbaum, CEO of Tactile Mobility, a provider of tactile data and sensing technologies that allow autonomous vehicles to detect road bumps, curvatures, and hazards. “Companies building fleets of [autonomous vehicles] are ... developing solutions and guidelines for general maintenance, cleaning, and sterilization. By keeping strict cleaning schedules and maintenance checks, along with already existing technologies like in-cabin monitoring solutions, [autonomous vehicles] will be able to handle it.”

Dmitry Polishchuk, head of self-driving cars at Yandex, believes robotaxis’ ability to reduce contact will appeal to drivers, as well as riders. In something of a case in point, a Waymo safety driver declined to pick up a rider at Intel’s campus in Chandler, Arizona after hearing reports that an employee had tested positive for COVID-19.

“Safety is a strong motivator for us in developing autonomous technologies,” Polishchuk told VentureBeat via email. “We take precautionary measures to make our robotaxi rides as safe as possible for both drivers and riders. We monitor the cleanliness of cars using the best practices that Yandex applies in its taxi and car-sharing services.”

Of course, autonomous vehicle deployments are unlikely to move forward in the short term, as most of the testing has been paused. Nisenbaum points out that governments are focused on reallocating resources or freezing budgets to cope with the COVID-19 fallout and that it will take time to ramp up the necessary testing and legislation required to get cars on the road. Even if that weren’t the case, the vast majority of people lack access to autonomous transportation. For instance, Waymo’s public Waymo One service is live only in Phoenix, Arizona for a limited number of customers.

Delivery robots

While autonomous cars might be grounded at the moment, delivery vehicles like Nuro’s R2 — which exclusively carry groceries and other essentials rather than human occupants — are having a moment. Regulators have shown a willingness to cut red tape for rovers such as R2, which in February received the first autonomous vehicle exemption from the U.S. Department of Transportation.

“Delivery robots add convenience and perceived safety without having to trust them with your life, unlike [autonomous vehicles], and therein lies the difference,” said Nisenbaum. “Delivery robots will be accepted by society much faster than [autonomous vehicles].”

Starship Technologies, one of several companies developing autonomous robots that deliver items from local businesses, told VentureBeat that it has observed an increase in order volume in recent weeks but said it is too early to conclude whether this is related to COVID-19. On the restaurant side, Starship says there’s been an uptick in interest as cities like San Francisco and New York enact mandatory closures and shelter-in-place orders.

Nicholas Farhi, a partner at OC&C Strategy Consultants who works with clients in automotive services, thinks the chief challenge will be scaling up the number of delivery robots to meet demand. “It’s much easier to hire 100,000 people [as Amazon recently announced it would do] with one-week notice than build 100,000 delivery robots,” he said.

Companies like KiwiBot and Neolix claim they’re up to the challenge.

In mid-March, KiwiBot’s autonomous delivery robots began delivering sanitary supplies, masks, antibacterial gels, and hygiene products for the communities of Berkeley and Denver. As for Neolix, Alibaba, JD.com, and other ecommerce customers booked orders for 200 of its vehicles over the last two months, up from 125 orders in May 2019. Those purchases were spurred on by the Chinese government’s offer to subsidize up to 60% of the cost of each vehicle, which Neolix anticipates will bring sales to 1,000 vans by the end of the year.

Specialized vehicles

In China, Neolix says its vans have delivered medical supplies and supplemented labor shortages in areas hit hardest by COVID-19. In partnership with Apollo, Baidu’s autonomous vehicle platform, these vans have also delivered food to health workers in Beijing caring for those who’ve fallen ill.

Despite the obvious advantages of using driverless cars and robots during a health crisis, they face a public perception battle. Two studies — one published by the Brookings Institution and another by the Advocates for Highway and Auto Safety (AHAS) — found that a majority of people in the U.S. aren’t convinced of driverless cars’ safety. More than 60% of respondents to the Brookings poll said they weren’t inclined to ride in self-driving cars, and

almost 70% of those surveyed by the AHAS expressed concerns about sharing the road with them.

For this reason, Nisenbaum predicts that adoption will happen slowly and with extreme caution, even when things eventually return to normal.

“[As] many consumers were already wary of [autonomous vehicles], it will be a long time before people are able to move beyond recuperating from this crisis to accepting new frontiers in tech,” he said. “I do, of course, think that [autonomous vehicle] adoption will happen, and it will offer so many benefits to society in terms of safety and convenience — just not as soon as we would have anticipated or hoped for.”

Hon Hai suspends production in India to April 14th

Taipei, March 25 (CNA) Taiwan-based manufacturing giant Hon Hai Precision Industry Co. said Wednesday that its production in India has been suspended and that the suspension is scheduled to continue into April 14 after the South Asian country imposed a "total lockdown" to contain the spread of the COVID-19 coronavirus.

In a statement, iPhone assembler Hon Hai, known as Foxconn in the global market, said that the production suspension was declared in line with the Indian government's anti-COVID-19 efforts.

Indian Prime Minister Narendra Modi ordered a complete lockdown for the country's population of 1.3 billion, starting from Wednesday, and will run for 21 days, warning that if the virus remains uncontrolled over the next three weeks, "many families will be destroyed forever."

India joined a group of other countries worldwide to impose lockdowns or similar measures to contain the COVID-19 pandemic, affecting more than 2.6 billion people worldwide.

Hon Hai, the world's largest contract electronics maker, said that when its production in India resumes will depend on the Indian government.

The production suspension has affected Hon Hai's iPhone shipments, as the Taiwanese supplier has used the South Asian country as a base for rolling out its popular smartphone models for Apple Inc., market analysts said.

India is an iPhone production hub for Hon Hai, in addition to China, where the Taiwanese company employs more than 1 million workers in its sprawling production bases.

China, where the COVID-19 pandemic began at the end of December, had previously imposed massive lockdowns on more than 50 cities to rein in the virus, which has interrupted production of Taiwanese suppliers to Apple.

As the pandemic in China has shown signs of easing, however, production in China has been gradually restored.

Echoing Modi's ambitious "Make in India" initiative, Hon Hai has embarked on a project to establish 10-12 facilities in the South Asian continent by 2020 as part of the company's efforts to extend its global reach in electronics manufacturing.

Hon Hai has also been investing in a wide range of businesses such as e-commerce, mobile Internet services and renewable energy in India. According to a list released last year by Apple, Hon Hai's production base located in Tamil Nadu, India, has been among the U.S. client's top 200 suppliers. In addition to Apple, Hon Hai also produces devices for other international brands such as Xiaomi and Nokia.

Among Hon Hai's subsidiaries with operations in India, Hong Kong-listed FIH Mobile Ltd. serves as the largest contract electronics maker in India and the unit aims to optimize its production and raise capacity in a bid to win contracts from Chinese clients who have set their sights in the Indian market.

(By Chung Jung-feng and Frances Huang - FOCUS TAIWAN)



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NEWS FROM THE UK

BOB WILLIS

Online/Onsite Training & Consultancy Worldwide

Cleaning, Soldering & Rework Webinars



Every month we present online webinars for assembly, design, quality engineers and production staff working in electronics industry. Its an ideal way of learning and increasing awareness on standard processes or solving production issues or failures onsite or at your contractor. Further information on hands on training via our [Website](#). Here are the webinar we are presenting in the next couple of months

[Reflow Simulation – X-ray & Optical Solve Design & Process Problems](#)

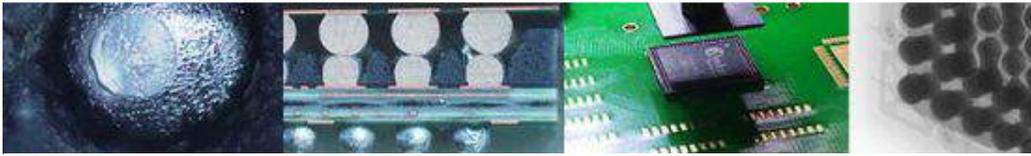
6th April 2:30 pm - 4:00 pm UK Time



Webinar outline

Ball Grid Array Rework – How to Do It Successfully

4th May 2:30 pm - 4:00 pm UK Time



Webinar outline

Practical Set-Up, Qualification of Cleaning Process in PCB Assembly

8th June 2.30 pm - 4.00 pm UK Time



Webinar outline

Further webinars for 2020

Solderability Benchmarking, Failures & Production Testing Methods - July
Monitoring & Benchmarking Your Processes & Assembly Yields - August
Printed Circuit Board (PCB) Inspection & Quality Control - September
Crimping Wire Termination Inspection & Quality Control - October
What is a Good Solder Joint – How to Test Your Joints - November
Guide to PCB Solder Finishes – Process Defects Causes & Cures - December

Electronic Presentation Services
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Ventec Re-Certified to AS9100 Revision D in UK

Ventec International Group Co., Ltd. is pleased to announce that the company's European headquarters in Leamington Spa, UK has successfully been re-certified with AS9100 Revision D in accordance with the Aerospace Supplier Quality System Certification Scheme EN 9104-001:2103 by SGS.

Ventec's UK and China facilities are certified to AS9100 Revision D quality standard, providing OEM's and PCB fabrication customers servicing the aviation, space and defense industries access to a fully accredited supply chain for high reliability laminates and

prepregs. This standard includes ISO 9001:2015 quality management system requirements and specifies additional aviation, space and defense industry requirements, definitions and notes.

To qualify and meet the strict certification criteria of the certification, Ventec's material manufacturing & supply processes undergo a thorough assessment for stringent aerospace requirements. Attaining and maintaining certification is critical to Ventec's mission to consistently offer aerospace- and automotive-grade materials to the market.

Anthony Jackson, General Manager of the UK facility commented: "Achieving and maintaining highest quality standards is the key to our success and continued growth. I am delighted with our successful re-certification audit which reflects the hard work of the entire Ventec team in implementing and practicing the highest levels of process quality. Our commitment to managing delivered quality to the highest standards provides our customer with the reassurance of being their strategic partner of choice in their own safety critical supply chains."

From manufacture through fabrication and global delivery, Ventec's high quality product portfolio of polyimides, high reliability FR4, tec-speed range of high speed/low loss materials and tec-thermal range of IMS materials are all covered by the accreditation.

For further information about Ventec's solutions and the company's wide variety of products, is available at www.venteclaminates.com and/or by downloading the Ventec APP.

Join the UK and WNIE Pavilion at SMTconnect 2020

SCS Exhibitions and **WNIE (What's New in Electronics)** would like to invite both our UK and International Colleagues the opportunity to join our pavilion at **SMT Connect** this year, taking place in Nuremburg from the 5th – 7th May.

Occupying a prime location in Hall 4 participants can exhibit from as a little as £2,995. This Pavilion will offer companies an inclusive POD package and the opportunity to secure a discounted marketing package with the WNIE online platforms. The POD includes the following elements:

- POD Space on the pavilion
- Company branding on large overhead banners
- Electrical Connection
- Use of Hospitality Facilities on pavilion (free refreshments throughout the show)
- Use of pavilion seating/meeting spaces
- Listing on event website
- Option of interview on WNIE TV
- Exhibitor Badges

- Post show networking opportunity

For eligible UK businesses, there are a limited amount of DIT grants to the value of £1,000 towards these costs.

You can then upgrade your participation in the pavilion with a variety of discounted marketing packages via **WNIE** (www.wnie.online) – the global industry hub. There are 4 different packages available and all have limited opportunities:

- **Bronze Package** – 3 x Tile Ads (one per week) on the weekly WNIE Wednesday Newsletter reaching over 80,000 people globally and priority posting of any press releases on the newsletter and out to our 18,000 + social media followers – you can vat – special pavilion rate = £455 + vat
- **Silver Package** – 3 x Banner Ads (one per week) on the weekly WNIE Wednesday Newsletter reaching over 80,000 people globally and priority posting of any press releases on the newsletter and out to our 18,000 + social media followers – you can select the weeks either pre or post SMT Connect. Package price should be £1,485 + vat – special pavilion rate = £895 + vat
- **Gold Package** – 1 Month Web Banner + 3 x Banner Ads (one per week) on the weekly WNIE Wednesday Newsletter reaching over 80,000 people globally and priority posting of any press releases on the newsletter and out to our 18,000 + social media followers – you can select the weeks either pre or post SMT Connect. Package price should be £2,235 + vat – special pavilion rate = £1,295 + vat
- **WNIE TV** – Take the ultimate coverage on WNIE TV with your logo on the studio wall and on video interview intros/outros and guaranteed one to one interview at SMT Connect or the option to join one of the round table discussions. Regular Price = £2,500 + vat. Pavilion Participants Price = £2,000 + vat
- select the weeks either pre or post SMT Connect. Package price should be £750 +

We hope that we can increase and improve your company's exposure through these great offers.

The SCS Expo and WNIE Team.
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NEWS FROM THE IPC

IPC Releases Automotive Addendum, IPC J-STD-001GA/IPC-A-610GA

IPC announces the release of IPC J-STD-001GA/IPC-A-610GA, *Automotive Addendum to IPC J-STD-001G Requirements for Soldered Electrical and Electronic Assemblies and IPC-A-610G Acceptability of Electronic Assemblies*. The addendum is a first-of-a-kind document that requires the use of both J-STD-001 and IPC-A-610 along with requirements in the addendum, as it looks at the whole of the electronics assembly manufacturing process from assembly to inspection addressing board reliability requirements for the automotive industry.

Committee members representing 17 countries worked diligently over two and half years on the addendum to address criteria and acceptability requirements for printed board assemblies for the automotive industry not covered in IPC-A610G and IPC J-STD-001G. The committee was guided by the principle of providing criteria to be used in addition to, and in some cases, in place of, those in the base documents to ensure the reliability of soldered electrical and electronic assemblies that must survive the automotive environment.

IPC would like to thank the many committee members for their participation in developing standards and addendums for the electronics industry to help build electronics better.

For more information or to purchase the new automotive addendum to J-STD-001G and IPC-A-610G, visit <https://shop.ipc.org>

North American PCB Industry Sales Down 1.1 Percent in February

IPC Releases PCB Industry Results for February 2020

[IPC](#) have announced the February 2020 findings from its North American Printed Circuit Board (PCB) Statistical Program. The book-to-bill ratio stands at 1.15.

Total North American PCB shipments in February 2020 were down 1.1 percent compared to the same month last year. Compared to the preceding month, February shipments rose 1.5 percent.

PCB bookings in February increased 14.2 percent year-over-year. Bookings in February increased 21.8 percent from the previous month.

“The coronavirus outbreak in China in late January and February created an unprecedented supply shock that idled significant global capacity and drove a historic increase in new bookings for the North American PCB industry,” said Shawn DuBravac, IPC chief economist. “We expect to see further increases in both new bookings and shipments in the coming month as near-term demand in North America spikes due to dis-allocations in the global supply chain and the medical supply chain ramping production of medical equipment to combat COVID-19.”

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.

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 by the end of each month.



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International Diary

2020

JPCA Exhibition

June
Tokyo, Japan

Postponed: EIPC Summer Conference Örebro, SE

Visit Ericsson 5G Test Centre
Örebro, Sweden

KPCA Exhibition

21-23 July
Korea

EIPC @ SMT Hybrid Packaging

28-30 July
Nurnberg, Germany

EIPC @ Evertiq Expo

3 September
Tampere, Finland

FED Conference

17-18 September
Augsburg, Germany

IPCA Expo

23-25 September
India

TPCA Exhibition

21-23 October

Taipei, Taiwan

EIPC @ Electronica 2020

10-13 November

München, Germany

ECWC15, WECC World Electronics Circuits Council

30 November-2 December

Shenzhen, China

HKPCA Exhibition

2-4 December

Hong Kong, China