



The European Institute for the PCB Community

# EIPC SPEeDNEWS

*The Weekly On-Line Newsletter*

*Issue 12 – April 2023*

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## EUROPEAN PCB INDUSTRY

**Eurospace White Paper – “Supporting Electronic Assemblies and PCBs for a resilient and competitive EEE components supply chain in Europe”**

by [Charles Galland Eurospace](#)

This white paper [here](#) provides a review of the Printed Circuit Board (PCB) and Advanced Packaging supply chains in Europe, from the point of view of critical applications, such as for space (and defence) programmes, and also from the point of view of the main leading industry organisations such as the IPC and the EIPC.

It notes that against the key trends identified in electronics technologies, the European PCB supply chain exhibits a few weak spots which affect a broad range of industrial sectors, from consumer electronics to high-performance/high-reliability sectors like automotive, aerospace and defence.

This white paper was authored by a representative group of experts from the space PCB and space electronics stakeholder community, involving customers, integrators and manufacturers. It was endorsed and released by Eurospace.



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### NEWS FROM GERMANY

#### **Schweizer Electronic AG Preliminary Group figures for the 2022 financial year and outlook for the year 2023**

*Turnover increases by +6.8%*

*EBITDA ratio of -9.4% remains below expectation*

*Equity ratio of -5.5% as majority takeover by WUS not yet completed*

*Expectation of turnaround in 2023*

*EQS Group*

Based on preliminary and as yet unaudited figures, the SCHWEIZER Group achieved consolidated revenues of 131.0 million Euro for the 2022 financial year. This corresponds to an increase of 6.8% compared to the previous year (forecast: +5% to +10%).

The EBITDA (earnings before interest, taxes, depreciation and amortization) amounted to -12.3 million Euro, which corresponds to a rate of -9.4% (forecast: -4% to -8%) and was thus below our expectations. The start-up losses of the Chinese subsidiary and the overall increase in energy and material prices, especially in Germany, had a particularly negative impact on the result.

Equity decreased to -8.8 million Euro, which corresponds to an equity ratio of -5.5% (31.12.2021: +5.3%), mainly due to the negative consolidated result. Thus, the forecast equity ratio in a range of 6% to 11% could not be achieved. The forecast was made subject to the entry of a new investor in Schweizer Electronic in China by the end of the year. As reported, the investor WUS Printed Circuit (Kunshan) Co., Ltd, based in China, signed a Share Transfer agreement for the majority takeover of Schweizer China on 22 December 2022, but it will only become effective in 2023 after approval by the shareholders' meeting of WUS. Thus, the signing of the purchase agreement in 2022 did not yet have a positive effect on equity.

Compared to the previous year, the consolidated result decreased by EUR -7.3 million to EUR -33.5 million Euro (2021: EUR -26.2 million).

The fact that SCHWEIZER is in the phase of implementing the majority sale of the Chinese unit Schweizer Electronic (Jiangsu) Co., Ltd. has a significant influence on the forecast for 2023. The forecast assumes that the contract with the investor WUS Printed Circuit (Kunshan) Co., Ltd. will be closed in April 2023. Under this assumption, revenue growth of between +5% and +10% compared to the 2022 financial year and an EBITDA ratio of between +4% and +6% are expected. Due to the deconsolidation of the Chinese unit, the management expects to close the 2023 financial year with a Group equity ratio of between +25% and +30%.

The audited figures as well as a comprehensive overview of the Group's development in the past financial year 2022 and a detailed forecast for the current financial year will be announced in the context of the publication of the annual report on 28 April 2023 at <https://schweizer.ag/investoren-und-medien/finanzberichte/downloads-berichte>.

Explanations to Financial Figures are available at:

<https://schweizer.ag/en/investors-media/company-key-figures/explanations-financial-figures>.

Contact:

Elisabeth Trik

Investor Relations

Phone: +49 7422 512 302

Fax: +49 7422 512 397

[ir@schweizer.ag](mailto:ir@schweizer.ag)

About SCHWEIZER

Schweizer Electronic AG offers the latest, cutting-edge technology and consultancy expertise in the PCB industry. Thanks to its state-of-the-art production facilities in Schramberg, Germany and Jintan, China as well as close partnerships with other technology leaders, SCHWEIZER provides individual PCB & Embedding solutions. SCHWEIZER's innovative PCB technologies are used in the most demanding applications, for example, in the Automotive, Aviation, Industry & Medical and Communications & Computing sectors, and are characterised by their extremely high quality and energy-saving and environmentally-friendly features.

The company was founded by Christoph Schweizer in 1849 and is listed at the Stuttgart and Frankfurt Stock Exchanges (ticker symbol „SCE“, „ISIN DE 000515623“).



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### NEWS FROM THE NETHERLANDS

#### **Mek (Marantz Electronics) Launches New Entry-Level Inline AOI Systems**

Marantz Electronics is proud to announce the launch of their latest generation Mek iSpector inline Automatic Optical Inspection system. This entry-level system is specifically designed to cater to customers with low volume, high mix production, who require high-quality AOI solutions without breaking the bank.

The iSpector system utilizes DOAL, main and side LED light sources from three different angles, creating a meniscus profiling light pattern that allows for the inspection of component bodies and solder joints. The system is equipped with Mek Colour Histogram analysis, which provides accurate and reliable inspection results with low false calls.

Offering a rapid and repeatable inspection process at an affordable cost, the iSpector is a lead screw and servo drive AOI system that combines high performance with the lowest cost of ownership. The system is easy to install, and the Mek iMentor online training program makes it exceptionally easy to program.

The iSpector utilizes software that has been continuously developed by Mek and proven in the market for almost 30 years. It has a clean and simple interface with powerful features, including full programming capabilities for solder inspection, component presence/absence, polarity, and value. The system's Z-axis allows for the inspection of taller components and hybrid PCBs, and users can import NC Data from their pick and place system or most popular CAD/CAM software.

To provide fast programming times and reliable results with low false fails, iSpector users can also take advantage of Mek's extensive custom libraries.

Furthermore, the iSpector series is fully compatible with Mek's Catch System, which offers full traceability and industry 4.0 readiness. Catch comprises modules such as Database CS Center, CS Repair, CS Analyser, and CS Watch, and it is fully scalable from single AOI stations to multiple machines.

"We are excited to introduce the iSpector system to our customers," said Henk Biemans, Managing Director for Mek. "We understand the importance of providing high-quality AOI solutions that are affordable and easy to use, and the iSpector is the perfect solution for customers with low volume, high mix production. With its powerful features and compatibility with Mek's Catch System, we are confident that our customers will be able to take their production processes to the next level."

For more information on Marantz Electronics' new entry-level inline AOI systems, please visit their website at <https://marantz-electronics.com/ispector-idx-inline/>



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## NEWS FROM THE UK

CENTRE FOR POWER ELECTRONICS (CPE) ANNUAL CONFERENCE

Tuesday 4th and Wednesday 5th July 2023 at the University of Nottingham

The Centre for Power Electronics (CPE) Annual Conference will bring together the Power Electronics, Machines and Drives Community to review the latest Research and Development that will impact the Electric Revolution. This Conference will feature Invited Keynotes and Presentations from Leading Academics and Industrialists, views of the Future Demands for Power Electronics and Drives and Opportunities for Pursuing a Career in this exciting field.

The Conference will be run over 2 days to provide a comprehensive review of status of Power Electronics Research and Development, including topics selected from:

- Semiconductor and Passive Devices
- Packaging and Interconnection
- Converters and Drives
- Control, Test and Reliability
- Power Electronics and Drives Related Applications

The CPE Conference is preceded by the PEPTUS 4 (Power Electronics Packaging Training and Upskilling) Workshop on Monday 3rd July at the same location, focusing on Devices and Packaging.

For Any other details or information  
Please contact:

IMAPS-UK Secretariat  
125 High Street Chesterton, Cambridge, UK  
Tel: +44 0131 2029004  
e-mail: [Office@imaps.org.uk](mailto:Office@imaps.org.uk)



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## NEWS FROM THE IPC

### **NCAB Group underlines importance of IPC standards for PCBs**

THE NCAB Group boasts a standard printed circuit board (PCB) specification which is above and beyond the Institute of Printed Circuits (IPC) requirements and specifically across 14 key points in the manufacturing process. Reliability is built into the process from the start.

Have you ever designed a board, but then received feedback that it couldn't be manufactured unless changes were made? Or maybe you've designed a complex board and sent it to the factory, only to find out that the manufacturer didn't build the board to your expectations?

PCBs are becoming more complex. The factory options are growing and the expectations around product lifecycles are becoming longer.

For fire industry products, two key points of the NCAB Group's specification stand out as being ideal. First, there's a minimum requirement of 25 um copper thickness in the barrel of the plated holes, which is IPC Class 3 requirement. This thicker copper in the holes has been proven to be beneficial during the shock tests of the products as there's less chance of the copper cracking under stress and then less chance of a field failure.

Second, there's a stated thickness requirement of the solder mask, thereby ensuring a better coverage and less low spots/weak areas. This has been proven to aid the SO2 corrosion testing procedures to which these products are subjected as the thicker soldermask helps to protect the copper during tests.

As a designer, you now have to think about more than just the software used to produce designs. In order to ensure a robust design, there's a need to understand how to design for manufacturability, how to design for the environment, how to design for reliability and design for test, etc.

Considering all of this means that the NCAB Group has to be aware of the expectations and, in some cases, the correct terminology necessary in order to make this happen.

Guided by the IPC

In order to help the designer, the manufacturer and the end user customer work towards the same goal, the IPC created standards to underpin the assembly and production requirements of electronic equipment and assemblies.

Through the use of IPC standards, board designers are able to design robust PCBs that achieve the necessary results and minimise their time to market. Designers can have confidence in a reliable board when the end product is used in the field.

Is the use of standards really that important? Absolutely. Consider producing PCBs without defined standards. The end result would not always be a product that meets expectations. There would be a risk of various interpretations of the same aspect. The correct quality levels could not be assured. There would be no way of comparing 'like for like' products or factories.

Further, a guaranteed time to market would be based upon chance rather than good factory selection and good design.

Based on an agreed stance that we need standards, are the IPC standards themselves effective? Yes. Through implementation of IPC standards, the designer, manufacturer and end customer derive many benefits.

### **IPC SummerCom to be held May 13-18 in Milwaukee**

Industry professionals to meet at IPC SummerCom to develop internationally recognized standards

Hundreds of experts from around the world will discuss electronics manufacturing standards in more than 80 meetings May 13–18 at IPC SummerCom in Milwaukee.

Facilitated by representatives from OEMs, PCB manufacturers, EMS providers, design firms, and other organizations, IPC standards development committees establish benchmarks for excellence in electronics manufacturing.

According to David Bergman, IPC vice president of standards and technology, IPC has more than 300+ active multilingual standards that cover nearly every stage of the electronics development product cycle.



“IPC SummerCom is all about IPC standards, and through standards development committee meetings, everyone in the industry can engage in an exchange of ideas about current industry trends as well as the identification of new standards and updates to current ones,” said Bergman. “Used by companies of all sizes in more than 90 countries by all manufacturing sectors, IPC standards help the electronics manufacturing industry build electronics better.”

Standards development committee meetings will cover industry benchmarks in assembly and joining; assembly equipment, base materials; cleaning and coating; electronic documentation technology; electronic product data description; embedded devices; environment, health and safety; fabrication processes; flexible and rigid-flex printed boards; high speed/high frequency interconnection; management; packaged electronic components; printed board design technology, printed electronics; process control; product assurance; product reliability; rigid printed boards; terms and definitions; testing; and wearable electronics/e-textiles.

In addition to standards meetings, IPC will celebrate the accomplishments of “IPC A-Teams” at the Golden Gnomes Award Ceremony on May 16. The awards, inspired by IPC’s fictional TechNet gnomes Clumpy and Kloumpios, recognize the outstanding and creative work of IPC A-Teams. IPC A-Teams are dedicated groups of volunteers within IPC working groups who take on a significant amount of work on behalf of their groups.

This year, IPC SummerCom will be co-located with the Electrical Wire Processing Technology Expo (EWPTTE) at the Wisconsin Center. IPC SummerCom registration gives participants free access to EWPTTE. For more information on standards development activities at IPC SummerCom or to register, visit [www.ipc.org/event/ipc-summercom](http://www.ipc.org/event/ipc-summercom). For more information on all IPC standards development activities, visit [www.ipc.org/standards](http://www.ipc.org/standards).



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## International Diary

### 2023

#### **21<sup>st</sup> EIPC Technical Snapshot Webinar**

3 May

Registrations via [www.eipc.org](http://www.eipc.org)

#### **EIPC @ SMTconnect**

9-11 May

Nuremberg, Germany

#### **EIPC Summer Conference**

Visit BMW World

15 & 16 June

Munich, Germany

#### **22<sup>nd</sup> EIPC Technical Snapshot Webinar**

Registrations via [www.eipc.org](http://www.eipc.org)

September

#### **23<sup>rd</sup> EIPC Technical Snapshot Webinar**

Registrations via [www.eipc.org](http://www.eipc.org)

October

#### **EIPC @ Productronica 2023**

14-17 November

München, Germany

#### **24<sup>th</sup> EIPC Technical Snapshot Webinar**

Registrations via [www.eipc.org](http://www.eipc.org)

December