

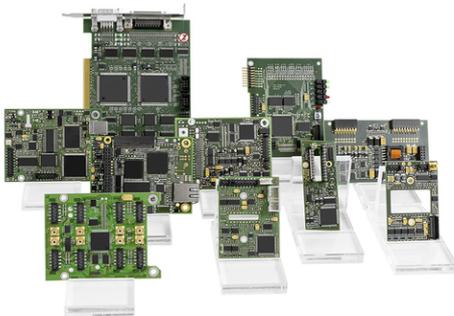


tec5 – TOPICS

- **Dual Channel Compact Electronics | CME-USB**
- **App News | Pump-Probe Spectroscopy**
- **Interview Part 1 | tecSaaS® meets NAMUR-Recommendation 153**

Have fun reading the news ...

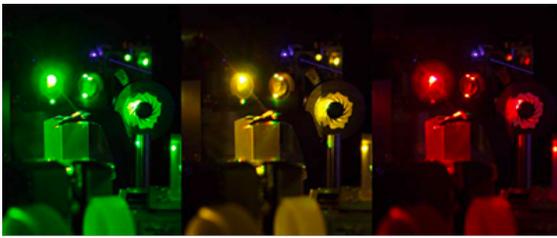
Greetings from Oberursel
Your tec5



Fast Simultaneous Measurements with the New Dual Channel Compact Electronics CME-USB

Intended for OEM use, the electronics allows to operate two NMOS- or CMOS-type spectral sensors in parallel at a readout rate of 1 MPixel/s at 16 bit A/D conversion. Providing two-channel sensor clocking, the analog signals are processed and converted in separate, identical analog paths. Raw data are passed to a PC over a USB interface. The electronics is ideal for typical applications requiring a simultaneous reference channel measurement e.g. for light source referencing or for multichannel applications.

[Electronics >>](#)



tec5-Hardware Boosts Pump-Probe Spectroscopy

The group around Dr. Markus Braun, Goethe University Frankfurt, addresses the direct conversion of sunlight into electricity. Therefore the team takes a look at nature, with the help of tec5-hardware. Read more ...

[App News >>](#)

Intelligent and autonomous measuring technique – the tecSaaS® embedded platform is the answer to IT-Security requirements, at present and in the future

Interview with Steffen Piecha, Head of Sales & Marketing concerning the tec5 embedded platform tecSaaS®.

Question 1: What was the intention for the development of the tecSaaS® platform?

Steffen Piecha: *The development of the new embedded platform **tecSaaS®** [tec5 Spectrometer as a Sensor] was driven by the desire to realize intelligent, highly available and autonomous UV-VIS-NIR spectrometer systems, which could be integrated into machines and production-lines through available process interfaces. With the complete integration of all data processing functions into the spectrometer unit, process relevant results can now be transferred directly to the machine or process control system. A separate [Windows-] PC is no longer necessary or required. Systems based on the new embedded platform, are paving the way to smart, interlaced process-sensors, in the context of “Industry 4.0”, as they are requested by many of our industrial clients.*

Question 2: Who is addressed by the tecSaaS® platform?

Steffen Piecha: *The offer is directed at system integrators and manufacturers of measurement instruments with core competencies in application-specific solutions and not in the development of read-out electronics. These producers rely on the availability of this basic component as a generic OEM platform. Usually such parties are either not able or willing to invest in such a platform development due to limited capacities, high costs and efforts. As the necessary efforts are clearly in the range of man-years, this is only profitable for high quantities. With tecSaaS® such a platform is available as an OEM-element, but also as part of a customized system for the first time, creating a unique selling point.*

Question 3: IT-security is an important topic, which is currently under discussion. Can you give us some additional information about this point?

Steffen Piecha: *Yes, indeed. By now, for many system operators pc-based solutions have become so called “no go’s” or an integration is only possible with significant efforts in security and maintenance. With this in mind, we have already identified IT security aspects in an early stage of development to have them integrated into the requirement specifications and implemented in system design. Besides many other features, this includes state-of-the-art hardware-assisted encryption, signing to ensure data stability and system integrity. Addressing the details, we have issued a [white paper](#). The extensive requirements for suppliers of automation solutions can be found*

in the recommendations of the NAMUR working group [NE153 Automation Security 2020]. Amongst other aspects, the latter demands, that producers and system integrators incorporate security-concepts into their products. They are also encouraged to reduce system complexity. Furthermore they have to ensure, that patches do not influence the functionality. This also includes updates of the operation system.

NAMUR-Recommendation 153 >>

Read the second part of this interview, targeting the NAMUR recommendation 153 “Automation Security 2020”, in our following newsletter.

For further questions, please do not hesitate to contact Steffen Piecha:

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