

Spectrum Instrumentation turns 30

Riding the PC instrumentation wave with quality, support and innovation

Grosshansdorf, Germany – 6th December 2019. Spectrum Instrumentation, a specialist PC based technology company, has built a global enterprise since it was first founded 30 years ago in December 1989. The company uses a versatile modular design approach to create a wide range of digitizer and generator products as PC-cards (PCIe and PXIe) and stand-alone Ethernet (LXI) instruments. In 30 years, they have gained customers all around the world, including many A-brand industry-leaders and practically all prestigious universities. The company is headquartered near Hamburg, Germany.



The current MD, Gisela Hassler, and partner Michael Janz began the business by designing custom products for a small number of clients involved with printer control and acoustics. However, in the late 80's the PC revolution was well underway and Spectrum identified it as an opportunity. They decided to couple high level test and measurement products to the emerging PC movement. In 1991 the first ISA card, a general purpose 8-bit 50 MS/s digitizer, was released. The card plugged directly into the early PCs turning them into flexible data acquisition systems with digital oscilloscope like qualities. In fact, this very first ISA card was so successful it remained part of the Spectrum product line-up for the next 17 years!

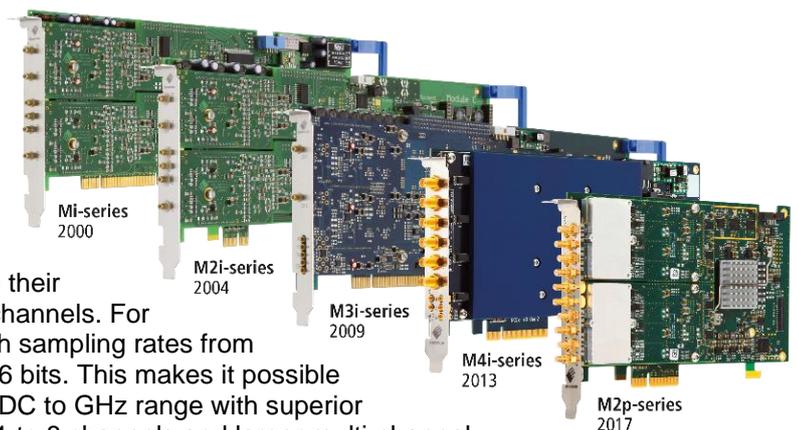


MD for 30 years: Gisela Hassler

Over the intervening period Spectrum has followed the rapid development of the PC industry, moving its products from the ISA standard to PCI and then on to PCIe. By doing this they've been able to take advantage of the latest interface capabilities, which allow products to attain much faster data transfer speeds and greatly improve their automated testing capabilities. Under the guidance of Oliver Rovini, Spectrum's Technical Director, the company also developed a modular design philosophy that shares a common base card design with a variety of daughter boards. The concept allows the creation of multiple products that all share proven technology. The benefit is found in greatly reduced development times and products with increased reliability. Oliver Rovini says: "Modular design has allowed us to launch a wide variety of products in a short period of time. Furthermore, we now offer our customers a large number of product variations which means they're able to get a product that's right for them, without having to pay for over performance."

Today Spectrum offers its customers a complete line-up of digitizers, arbitrary waveform generators (AWGs), digital I/O cards and instruments. They're all available in the popular standards of PCIe, PXIe and LXI. The company has one of the largest portfolios of digitizers on the market, giving users a huge choice of different performance levels.

The aim is to offer customers "perfect fit solutions" by providing products that best match their specific requirements for speed, accuracy and channels. For example, Spectrum's digitizers are available with sampling rates from 5 MS/s up to 5 GS/s and resolutions from 8 to 16 bits. This makes it possible to acquire and analyse almost any signal in the DC to GHz range with superior speed and precision. The cards also offer from 1 to 8 channels and larger multi-channel systems can be effortlessly created by connecting up to 16 fully synchronized units together!



Complimenting the digitizers is an outstanding range of AWGs with speed grades that go from 40 MS/s up to 1.25 GS/s. The AWGs are all equipped with 16-bit resolution so they can produce signals with incredible

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detail and accuracy. It makes them invaluable tools for engineers and scientists that need to recreate or simulate real world test signals.



Spectrum's production near Hamburg, Germany

The company backs up its products with a full complement of software tools, making them simple to use and integrate into the PC environment. Common drivers allow programming in almost any language and a powerful GUI is also available for those not wanting to write their own software.

“We’ve built our reputation on providing exceptional quality and support” says Gisela Hassler. “Our products are used by leading companies and institutes around the world and they’re deployed in some of the most demanding test systems. For instance, 140 of our digitizers control the complicated shutdown procedure for the Large Hadron Collider at CERN. Customers understand that reliability is essential and that’s one

reason why all our products carry an industry leading 5-year warranty. Software updates are free for the life of the product, as is technical support, which comes directly from our team of dedicated hardware and software engineers.”

To help celebrate its 30th anniversary, Spectrum Instrumentation has created a new 44-page catalogue that highlights all of the company’s latest products. It’s available from any of its worldwide sales representatives, or by contacting Spectrum directly at www.spectrum-instrumentation.com.



140 Spectrum digitizer cards controlling the shutdown-procedure of the world's biggest particle accelerator at CERN



The catalog 2020, containing a detailed 30 years history of Spectrum Instrumentation, is now available on the starting page (bottom right) of the website www.spectrum-instrumentation.com

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