NEWS RELEASE

SCANDINOVA'S THIRTEEN SWISSFEL PULSE MODULATORS SUCCESSFULLY DELIVERED AND IN FULL OPERATION

UPPSALA, SWEDEN October 30, 2018. ScandiNova Systems today announced the completion of its high-precision pulsed-power modulator delivery to SwissFEL, the new Free Electron Laser Scientific Research Facility at the Paul Scherrer Institute in Switzerland. All 13 modulators are now SAT-approved and in full operation, helping to progress pioneering research experiments.

ScandiNova started the SwissFEL modulator project in February 2016, immediately after receiving the order from the Paul Scherrer Institute (PSI). The first unit was delivered in June 2017 and the last one in February 2018. Now all modulators are approved and installed in the Free Electron Laser Facility's Linear Accelerator. As one of ScandiNova's largest projects ever, its successful completion represents an important milestone for the company.

"We are very proud of our contribution to the new SwissFEL," says Mikael Lindholm, Senior Vice President, Sales and Marketing, at ScandiNova Systems.

"It has been a privilege to conduct this project together with PSI and we all anticipate new insights and revealed secrets from coming studies and experiments. We also look forward to continuing good cooperation and further new projects," he notes.

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World-leading pulse-pulse stability

The 13 modulators drive high power C-band (5712 MHz) Klystrons operating up to 50 MW RF peak power at pulse-pulse stability levels as low as a record-breaking 8 ppm and a pulse flatness down to levels below 1.0%. The Power factor is close to ideal (up to 0.98).

Free-electron lasers produce X-rays of a far higher brilliance (a measure of X-ray intensity) than even the most advanced synchrotron light sources. The pulses of X-ray light generated from SwissFEL thus open up completely new research possibilities and drive progress in many key application areas, e.g. the development of new pharmaceuticals.

Long history of successful collaboration

ScandiNova started its collaboration with PSI in 2007, designing and manufacturing a Solid State Modulator for a special C-band Klystron adapted to the SwissFEL injector. One year later, an order for a further seven Solid State Modulators optimized for the injector was received. Moreover, in 2012, SwissFEL requested a prototype Modulator for its C-band accelerators. The high performance and quality requirements set by PSI over many years have thus pushed ScandiNova to continuously improve and take its technology to levels never before reached.

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About ScandiNova Systems

Thanks to its breakthrough technology, ScandiNova is a world leader in the development and production of Pulsed Power Systems with high power levels. The company's product range covers pulse modulators, generators, turnkey radio frequency (RF) systems and e-gun modulators, all equipped with Solid State technology.

These systems have key functions in several research-based applications and radiotherapy, as well as in cargo inspection, non-destructive testing, industrial X-ray, sterilization and other industrial uses.

More than 95% of production is exported to clients in 40 countries, mainly in Europe, Asia and North America. ScandiNova Systems AB, a spin-off from Scanditronix, was founded in 2001 by individuals with long commercial and technical experience in pulsed-power applications. The company, which has its head-office in Uppsala, Sweden, has 65 employees plus sales representatives in key regions around the world.

For more information, please visit www.scandinovasystems.com

For more information about SwissFEL, please visit https://www.psi.ch/media/swissfel

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