Excelitas Technologies Introduces High-Repetition Rate LINOS Double BBO Pockels Cells for Fast Q-switching Lasers

Two Crystals in Optical Series Enable the Fastest Possible Switching Rates Available Today!

WALTHAM, Mass. February 16, 2016 – Qioptiq, an Excelitas Technologies® Company and global technology leader in delivering innovative optical and photonic solutions, introduces its **LINOS Double BBO High-Repetition Pockels Cells (DBBPC HR),** featuring two crystals in an optical series to enable the fastest possible switching rates available today with up to 1.3 MHz performance. The DBBPC HR Series Pockels Cells are specifically designed for fast Q-switching as required in regenerative amplifiers or for pulse pickers.

Applications for the new LINOS Double BBO High-Repetition Pockels Cells include use in ultra-fast lasers for micro material processing, ophthalmology, and fluorescence spectroscopy, as well as by laser manufacturers (especially manufacturers of fs-Laser systems) and scientific institutes.

Conventional BBO Pockels Cells suffer from piezo ringing at high switching rates (several hundred kilo Hertz), which generates so much heat that performance degrades and the Pockels Cell can be damaged. Superior thermal management of the DBBPC HR design eliminates any requirement for additional cooling and also allows fast tuning of the switching rates. Together with low absorbing BBO crystals, the DBBPC HR Pockels Cells are perfectly suited for the next generation of fast, high-power regenerative amplifiers and pulse pickers.

The DBBPC HR Pockels Cell is available with extra-long crystals and small apertures which reduce the switching voltage significant. Thus the driving electronics are less complex and permit half-wave voltage applications where required.

In addition to high damage threshold coatings for 1064nm and 1030nm, customer-specific wavelengths are also available upon request.

Standard specifications include:

- Apertures: **ø2.7mm** or **ø3.2mm**
- Wavelength: **1030nm**
- Transmittance: **≥ 98%**
- Extinction ratio (without voltage): **>1000:1**
- λ/4 voltage @ 1030nm (± 15%; DC): **1.4kV** (ø2.7) or **2.0kV** (ø3.2)
- Capacitance: **< 8pF**
- Damage Threshold: **> 4 J/cm^2** (@ 1064nm, 74ps)

The new Pockels Cells feature reduced switching voltage and are suitable for quarter- and half-wave mode applications, as well as for Q-Switching, cavity dumping, regenerative amplifiers and pulse pickers.

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About Excelitas Technologies

Excelitas Technologies Corp. is a global technology leader focused on delivering innovative, high-performance, market-driven photonic solutions to meet the lighting, detection and optical technology needs of global customers. From biomedical technology to research laboratory, safety and security, consumer products, semiconductor, energy and environment, industrial, defense and aerospace, Excelitas Technologies is committed to enabling our customers' success in their end-markets. Excelitas Technologies acquired Qioptiq in 2013 and now has approximately 5,500 employees in North America, Europe and Asia, serving customers across the world. Connect with Excelitas on Facebook, LinkedIn and Twitter.

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