Newsletter 5/2007

September 2007

www.liekki.com

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Introduction

Welcome to the September 2007 edition of our newsletter.

Due to our rapidly expanding offerings this newsletter is highlighting:

- LIEKKI service offerings
- General availability of our 100W CW optical engine modules
- Expanded range of LIEKKI passive fibers
- Availability of LIEKKI EasySplice v1.7
- Special features on www.liekki.com
- LIEKKI's presence at upcoming tradeshows
- Interesting bachelor, master, licentiate or doctoral thesis topics at LIEKKI

As always we appreciate your feedback as we strive to improve our newsletter.

Sincerely,

William R. Willson

Vice President, Sales and Marketing

Phone: +1 301 706 0315

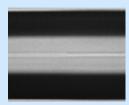
Email: william.willson@liekki.com

LIEKKI service offerings

In addition to our industry leading high power fibers, optical engines and design software, we are offering a broad range of complementary services to accelerate your product developments.









LIEKKI design services

To start with LIEKKI offers design assistance through its design software, **LIEKKI Application Designer (LAD)** and its experts. A **free 28 days evaluation license** for our design software is available for download on our website, but for those that are time or resource constrained we offer our design skills as a service.

LIEKKI coiling services

Large mode area fibers need to be coiled in order to optimize beam quality. LIEKKI has gained many years experience in coiling and we are now offering our expertise within our LIEKKI coiling service.

LIEKKI fibers can be formed into a coil of various bend diameters, depending on the fiber core and cladding. The finished coil is potted in a compound for added protection and heat dissipation.

LIEKKI cleaving and splicing services

LIEKKI active and passive fibers are designed to facilitate efficient splicing with industry standard fusion splicers. If the tools or skills for cleaving and splicing are not available, LIEKKI features state-of-the-art cleaving and splicing technology and the in-house expertise to offer these services. LIEKKI also offers a specially coated splice (pump dump splice), which removes residual pump power from double clad fibers.

LIEKKI end caps

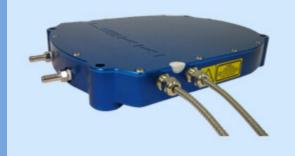
End caps manufactured with LIEKKI passive fibers are used for expanding the output signal beam. Our end caps are manufactured with LIEKKI passive fibers with 125, 250 or 400 micron claddings. **LIEKKI end caps** are embedded within a polished Angle Physical Contact (APC) connector. It is recommended that all residual pump power to be stripped out of the fiber before the end cap.

Please contact our **sales support** for more information about these services.

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General availability of our 100W CW optical engine modules

We have moved forward from the prototype stage to general availability of our 100W CW optical engine modules. **LIEKKI optical engines** integrate the entire fiber amplifier or laser glass elements like active fibers, passive fibers, pump combiners, fiber Bragg gratings (FBGs), pump dumps and filters into a thermally engineered package. This enables fiber laser manufacturer or system integrator to dramatically reduce the product development time and to concentrate on the full system development and integration.



Today, our **LIEKKI OE-Yb-L-100** modules have completed final design and qualification, and we have started to accumulate many hours of these devices under test.

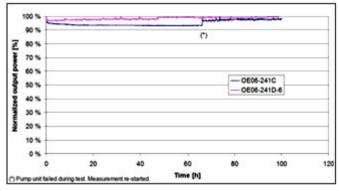


Figure 1: Stability tests show no optical engine degradation

For more information, please contact our Product Manager for optical engines Joona Koponen (mobile: +358 40 848 5032, email: joona.koponen@liekki.com).

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Expanded range of LIEKKI passive fibers

LIEKKI is offering single and double clad **passive fibers** to match our ytterbium active fibers. The core diameters and numerical apertures are perfectly matched to the active fibers to ensure that excellent beam quality is maintained throughout the system.

We are constantly adding more single and double clad passive fibers to our range of products to match each of our ytterbium active fibers. In September the following single and double clad fibers will be added:

- LIEKKI passive-20/123-PM
- LIEKKI passive-20/390
- LIEKKI passive-20/390-PM
- LIEKKI passive-30/240
- LIEKKI passive-30/240DC-PM

Please contact our **sales support** for more information about our **passive fibers**.

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Availability of LIEKKI EasySplice v1.7

LIEKKI EasySplice is complimentary software that provides optimal splicing parameters for LIEKKI fibers. The software has recently been updated with all our ytterbium fibers.



LIEKKI EasySplice covers various splicers and pigtails used in the industry today.

Stay tuned for more updates as we collaborate with several suppliers of splicers and develop own splice recipes.

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Special features on www.liekki.com

Product specifications, specifications for our LIEKKI standard products are available on our website 24/7/365. The product specifications can be found easily in the product section of the website, without any registration.

Product selector, a support tool which helps to find the optimal product for an application. The product selector chooses based on selected parameters, i.e. application wavelength, application type and power range, the suitable LIEKKI standard product for an application including complementary products. The **product selector** is located in the customer support section of the website.

Request for quote feature allows to request a quote for our LIEKKI standard products within one single step using the **request a quote** form in the customer support section of the website or browsing our products within the shopping cart.

Purchase online feature enables to purchase our LIEKKI standard products online using the **purchase online** form in the customer support section of the website or the shopping cart when browsing our products. The online purchase process is based on a Secure Sockets Layer (SSL) protocol and guarantees secured communications and transactions.

For more information, please contact Sabine Doms, Manager Marketing and PR (mobile: +358 50 912 6955, email: sabine.doms@liekki.com).

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LIEKKI's presence at upcoming tradeshows

LIEKKI will be present at the following upcoming conferences and exhibitions:

- China International Optoelectronic Exposition 2007,
 Shenzhen, China, September 6 9, Booth #6019
 To schedule a meeting please contact Pekka Kykkänen
 (mobile: +358 40 707 8070, email: pekka.kykkanen@liekki.com).
- Advanced Laser Applications Conference 2007, Boston, MA, USA, September 24 - 26
- Alihankinta Subcontracting Fair Finland 2007,
 Tampere, Finland, September 26 28, Booth #D320
- 26th International Congress of Applications of Lasers & Electro-Optics
 2007, Orlando, FL, USA, October 29 November 1, TableTop Display & Reception
 To schedule a meeting please contact William R. Willson
 (mobile: +1 301 706 0315, email: william.willson@liekki.com).
- China International Lasers, Optoelectronics and Photonics Exhibition 2007, Beijing, China, November 20 - 22

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Interesting bachelor, master, licentiate or doctoral thesis topics at LIEKKI

LIEKKI offers several interesting bachelor's, master's, licentiate or doctoral thesis topics to students in photonics, optics, metrology, process control and manufacturing automation.

For more information please visit the **career page** of our website.

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