

# Newsletter



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## April Newsletter 2021

Welcome to the April 2021 edition of the OPTOKON newsletter, which is issued as we get back to work following the Easter holidays. Although the ongoing pandemic curtailed the traditional festive activities here in the Czech Republic, we hope all our readers had a peaceful and healthy holiday time.

With many exhibitions being postponed or held virtually, we are happy to announce that OPTOKON will be partaking in exhibitions in Turkey and Ukraine in the coming months as well as being a silver sponsor for the MILITARY RADAR + BORDER SECURITY SUMMIT to be held in Ankara in October.

This edition contains articles on the recent alliance between OPTOKON and SIRIM and an update on the current project that OPTOKON is partaking in with the Czech Technical University Prague. You can also find our usual features and news of our new product releases.



### New products:

#### OFT-850 SMPTE Hybrid Cable Test Set



#### LMCP-7H Compact ultra-durable server

- Intel® Xeon® / Core™ Processor
- 64 GB DDR4-2133
- 3x 1G routed server ports
- 7x 1G switch ports



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## Recent Exhibitions

### **IDEX | International Defence Exhibition & Conference**

21.2.2021-25.2.21

Abu Dhabi National Exhibition Centre (ADNEC), UAE



## OPTOKON Forthcoming Exhibitions

### **ARMS AND SECURITY 2021 - NEW DATE**

Rescheduled to: 15 to 18 Jun 2021

International Exhibition Centre

Kiev, Ukraine

OPTOKON Stand: 3-F23

### **IDEF 2021 - NEW DATE**

**International Defence Industry Fair**

Rescheduled to: 17 to 20 Aug 2021

Tüyap Fair Convention and Congress Center

Büyükcemece, Istanbul.

OPTOKON Stand: 215I

### **MILITARY RADAR + BORDER SECURITY SUMMIT**

Hacettepe Beytepe Congress Center

Ankara, Turkey

Stand C13

5.10.2021-6.10.2021



The following exhibition has been rescheduled until 2022:

### **DSA 2020**

MITEC, Kuala Lumpur, Malaysia

28.3.2022-3.3.2022

# Company News

## OPTOKON SILVER SPONSOR

**O**PTOKON is pleased to announce that the company is a silver sponsor for the forthcoming VIRTUAL NUCLEAR POWER PLANTS EXPO & SUMMIT to be held on 1<sup>st</sup> and 2<sup>nd</sup> June 2021. The event is organised by the Nuclear Industry Association of Turkey and will showcase OPTOKON products.



The banner features the NPPES logo on the left, the event title 'VIRTUAL NUCLEAR POWER PLANTS EXPO & SUMMIT' in large blue letters, and the dates '1-2 JUNE 2021'. A 'VIRTUAL EXPO' button with a play icon and the website 'www.inppeslive.com' is on the right. The top image shows a construction site with cranes and a dome. The middle image shows a 3D rendering of the event building with an 'ENTRANCE' sign and a parking lot. The bottom section contains the OPTOKON logo and the text 'FIBER OPTIC TECHNOLOGY CALIBRATION LABORATORY' and 'SILVER SPONSOR'.

# Company News

## OPTOKON and SIRIM Standards Technology strengthen alliance for calibration in Malaysia

### Jihlava, Czech Republic – February 15, 2021

OPTOKON and SIRIM Standards Technology are pleased to announce further cooperation concerning the recent partnership between the two companies.

Teamwork, collaboration, cooperation, and partnership when implemented into a business strategy are without a doubt an excellent way to enhance productivity and innovation. This was the aim when the OPTOKON Malaysia calibration laboratory, an internal part of the OPTOKON Group with two calibration workplaces in the country, entered into a partnership with SIRIM SST SIRIM Standards Technology Sdn. Bhd in Malaysia.

SIRIM Standards Technology Sdn. Bhd. (SST) is a wholly-owned subsidiary of SIRIM Berhad and ranks among the largest calibration laboratories in Malaysia. SST is an ISO 17025 certified laboratory offering a one-stop center with a comprehensive and diverse range of calibration and measurement services. SST accredited laboratories in Malaysia are located in Selangor, Johor, Pulau Pinang, Pahang, and Sarawak.

The SIRIM SST laboratory is certified according to the ISO 17025 standard and offers a diverse range of calibration and measuring services.

SIRIM Standards Technology Sdn. Bhd. (SST) and the OPTOKON Calibration laboratory are committed to providing excellent calibration services to our clients. Continual development of state-of-the-art technology is our priority to ensure that SST and OPTOKON remain at the forefront of customer satisfaction.

On 21st December 2020, the top management of SIRIM SST visited OPTOKON Malaysia laboratory-1 in Kota Damansara, Selangor where they were given a tour of the premises and equipment demonstrations. The delegation from SIRIM SST included Tuan Haji Abdul Ghani bin Abdul Rahman, the Chief Executive Officer of SIRIM Standards Technology Sdn. Bhd., En. Zulkifli bin Mohd Sahalan, the General Manager, and En. Muhammad Fahimy bin Ahmad Ta'adin, the Head of the Shah Alam Branch.

### The full range of Optical Calibration services offered by OPTOKON Malaysia includes:

1. Optical Power Meters (PM)
2. Optical Light Sources (LS)
3. Optical Return Loss (RL)
4. Optical Time-Domain Reflectometers (OTDR)
5. Photodiodes
6. Optical Attenuators (OA)
7. Optical Spectrum Analyzers (OSA)

OPTOKON looks forward to continuing the excellent progress made so far in our partnership with SIRIM and is confident that the first steps taken will lead to our mutual success. Jiří Štefl, the General Manager of OPTOKON views this alliance as a major step forward in line with the innovation-focused programs of both companies, commenting "The association with a technically well-advanced company such as SIRIM is a major step forward for OPTOKON. I am confident that the high level of experience and knowledge of SIRIM in calibration technologies makes us their ideal partner in this segment in Malaysia and together we can offer the best solution in terms of price and quality".

## About SIRIM Standards Technology



SIRIM Standards Technology Sdn. Bhd. (SST), a wholly-owned subsidiary of SIRIM Berhad is one of the largest calibration laboratories in Malaysia. SST is an ISO 17025 certified lab that offers a one-stop center offering a comprehensive and diverse range of calibration and measurement services. SST accredited laboratories in Malaysia are located in Selangor, Johor, Pulau Pinang, Pahang and Sarawak.

SST, a subsidiary of SIRIM, is the premier industrial research and technology organization in Malaysia. Backed up by our pool of experts and well-equipped laboratories, we provide Innovative Businesses and Technology Solution to meet the needs of diversified market sectors such as Oil and Gas, Manufacturing, Aviation, Semiconductors/Electronics, Utilities, Education, Defense, Automotive, Telecommunications, Agriculture, Healthcare, and Construction.

Additional information is available at [www.sst.com.my](http://www.sst.com.my)

# Company News

## OPTOKON project cooperation with Czech Technical University Prague



For the second consecutive year, OPTOKON is cooperating in solving the “Optical planar channel polymer waveguides for high-capacity and high-speed data transmission project”, which is supported by the Technology Agency of the Czech Republic (TH04020118).

Below is an article by doc. Ing. Václav Prajzler, Ph.D., FEE from the Czech Technical University in Prague (ČVUT) who explains the aim and the current status of the project.

### Optical waveguides: higher speed, lower weight and limited interference

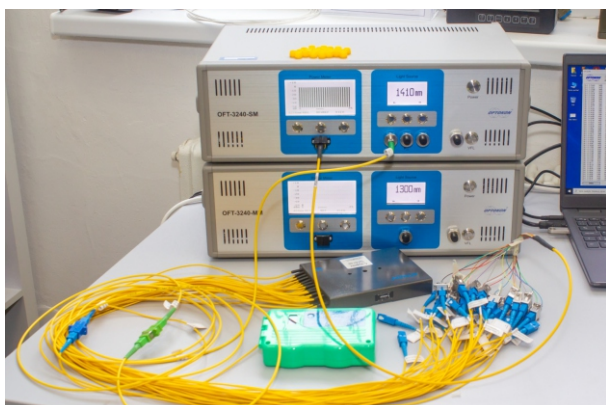
The goal of the project is to develop technology for the production of flexible optical polymer waveguides, where the implemented waveguide structure is to be composed of eight optical channel waveguides with dimensions of 50 x 50  $\mu\text{m}$  (height x width) and with a spacing between waveguides of 250  $\mu\text{m}$ .

The first four waveguides are to be used for outgoing communication and the second four for incoming communication. The structures are optimized for data transmission at 850 nm or 1,300 nm. The geometric dimensions of the waveguides and the transmission wavelengths used are chosen according to the standards for optical communication systems that use optical multi-divided fibers.

Part of the project is the development of a measuring and testing workplace that will measure this type of optical waveguide, and afterwards, the project will become part of the measurement laboratory at the OPTOKON Calibration Laboratory in Jihlava.

For patented flexible waveguides, multimode optical planar waveguides and equipment have been developed for implementing this method (PV306971), which consists of the application of thin polymer layers using an automatic film applicator with a spiral winder that was developed in the laboratories of the Czech Technical University. The structure itself is then created by a photolithographic process using special EpoCore/EpoClad optical polymer negative photoresists supplied by Microresit GmbH. For the implementation of these structures, we also test the technology for the production of polymeric optical waveguides by casting optical polymers into nickel molds. We have tested various types of optical elastomers based on polydimethylsiloxanes and are currently testing the UV photopolymer Lumogen OVD Varnish 311 (BASF) for the sheath layers of the waveguides, and the inorganic-organic OrmoClear "FX (Microresist GmbH) hybrid polymer for the waveguide core.

Since 2019, OPTOKON, a.s. and ÚJV Řež, a.s. have also been cooperating on a new project for the production of new optical cables for operation in extreme conditions. Our PLANIO laboratory coordinates activities for the implementation of these new optical cables while OPTOKON has produced three new types of these cables for testing purposes. At the partner workplace of ÚJV Řež, the cables are exposed to gamma radiation and their transmission properties are verified in the PLANIO laboratory.



# New Products

## LMCP-7H Compact ultra-durable server

- Intel® Xeon®/ Core™ Processor
- Up to 64 GB DDR4
- 3x 1G routed server ports
- 7x 1G switch ports

The OPTOKON compact ultra-durable server LMCP-7H is equipped with Intel® CPU, removable SSD disc and 7 LAN + 3 WAN Gigabit Ethernet ports. The LMCP-7H supports up to 64 GB of DDR4 memory, resulting in a reduction in overall power consumption compared to DDR3-based servers.

The LMCP-7H offers military grade features in rugged box making it an ideal platform for applications in harsh and rugged environments. LMCP-7H can operate in harsh environment under temperature range from -40 to 75°C, sealed against dust and debris, our Rugged Line stands up to shock, vibration and extreme temperatures.

For datasheet please contact our sales department  
[SALES@OPTOKON.COM](mailto:SALES@OPTOKON.COM)



## OFT-850 SMPTE Hybrid Cable Test Set

The OFT-850 set consists of an SMPTE SOURCE and an SMPTE TESTER unit and is designed for testing loss in optical fibers and checking the continuity of copper pairs in hybrid cables. The combined optical light source on one side, optical power meter on the other side and the copper wires checker makes it ideal for testing large spaces of the LEMO SMPTE Hybrid System for Broadcast Infrastructure Networks.

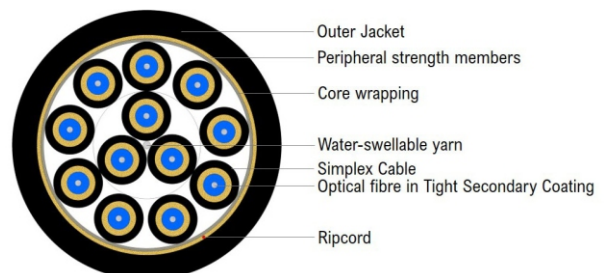
[Datasheet can be downloaded here](#)



## Flexible Breakout Cable 12F

Universal 12 fiber breakout cable for backbone cabling in indoor and outdoor applications with improved flexibility.

[Datasheet can be downloaded here](#)



# New Products

## OPT-SRI Wall Mounting Safe Rack IP65

•OPT-SRI wall mounting safe racks are designed for industrial applications and provided IP65 protection class against dust and water entry. Application areas include semi-open areas such as factories and warehouses with no direct rain and environmental effects. The fully gasketed door, IP65 performing cast handled locking with a 3-point locking system and isolated cable entries provide the best performance against water and dust entry. Corrosion protection is provided by t=1.5mm thick material, a monoblock welded construction with epoxy-polyester and powder coating in RAL 7035 light grey.



[Datasheet can be downloaded here](#)

## CS Patchcord Designed for next-generation 200/400G transceiver QSFP-DD and OSFP

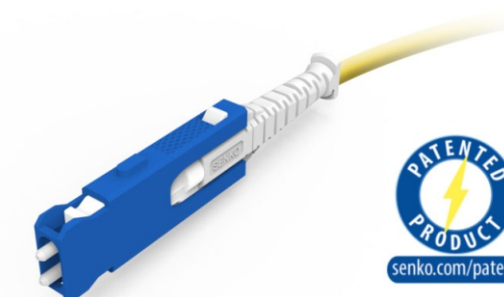
The CS<sup>®</sup> connector replaces the current duplex LC connectors, which are too big for newer generation transceiver interfaces and to increase the connector density in patch panels. The CS<sup>®</sup> connector is operated with a push-pull mechanism with two cylindrical, spring-loaded 1.25 mm ferrules within a single housing. The CS<sup>®</sup> connector's two ferrules are pitched 3.8 mm apart, which is the minimum possible spacing to meet today's TOSA and ROSA optics requirement. The CS<sup>®</sup> connector can be used with either a 2 mm or 3 mm jacketed cable.



[Datasheet can be downloaded here](#)

## SN Patchcord

The SN<sup>®</sup> connector is a new duplex optical fiber connector designed for Data Center 400G optimization and is designed to provide individual and independent duplex fiber breakout at a quad style transceiver (QSFP, QSFP-DD, OSFP) as a more efficient, reliable, and lower-cost alternative to the MPO connector. The SN<sup>®</sup> has two LC style 1.25 mm diameter zirconia ferrules in a single housing, pitched 3.1 mm apart vs 6.25 mm in a duplex LC connector and supports up to 1.6 mm jacketed cable



[Datasheet can be downloaded here](#)