

Newsletter



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January Newsletter 2023

Welcome to the January 2023 edition of the OPTOKON newsletter. This newsletter is the first of the year as we return from the festive holidays and look forward to what 2023 has in store for us. As is tradition, there is a New Year message from the General Director of OPTOKON, Jiří Štefl.

We also highlight recent visits to OPTOKON from a government delegation from Oman and the visit by Turkish students to OptoNet as part of the ERASMUS+ project. Rostislav Prosecký, the director of OptoNet Communication, also explains the new OptoNet data center in Jihlava. You can also find features on the OPTOKON Calibration Laboratory and the recent accreditation audit.

This is all in addition to our usual features containing information about exhibitions and the ever-expanding new OPTOKON products section. As is the tradition at this time of the year at OPTOKON, we also feature the recent Mikuláš festivities.

We would like to wish all our customers and partners a prosperous New Year.

New products:

NEW GENERATION

Light Mobile Computing Platform

- Intel® Xeon® processor
- **Up to 256 GB RAM ECC DDR4**
- 2x removable SSD 2.5 inch, RAID 0,1
- Wide operating temperature range:
-40 to +85 °C
- **Uplink 10/25 Gbps**



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Recent Exhibitions

OIL AND GAS AUTOMATION AND DIGITALIZATION CONGRESS 2022

Milan, Italy, 17.10.22-18.10.22

The OPTOKON and SAMM Teknoloji Alliance is a strong technical partnership emerging on the market with a new generation of security monitoring systems. The two companies presented their products together at this congress.



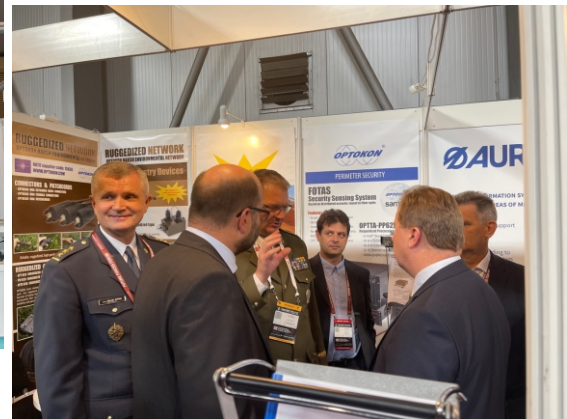
FUTURE FORCES INTERNATIONAL EXHIBITION

PVA EXPO PRAHA, Prague, Czech Republic, 19.10.22-21.10.22



SAHA EXPO DEFENSE AND AEROSPACE EXHIBITION

Istanbul, Turkey, 25.10.22-28.10.22



FIHAV 2022

Havana, Cuba, 14.11.22-18.11.22



OPTOKON Forthcoming Exhibitions

sok 2023 - The 26th Seminar on Optical Communications

25 to 27 January 2023

Faculty of Electrical Engineering, Ljubljana, Slovenia

Company News

A New Year Message from the General Director of the OPTOKON Group



Let me first start by extending my new year greetings to everyone and stressing that we have solid reasons to look to the future with optimism and high hope.

In the past two years, the world has faced unprecedented obstacles, from pandemics, war conflicts, labor shortages, and economic upheavals to supply chain disruptions. Thus, maintaining a permanent and sustainable business, which is the driving force behind success, is becoming more and more challenging.

We can hardly predict what awaits us in 2023. But what we can certainly do is act strategically and pragmatically. So if anything is certain, it's that digital transformation will remain in the spotlight in the coming year.

The main directions with which we will develop our strategy in 2023 are to consolidate our operating models and investments in technology. There will also be an emphasis on ensuring that the sustainability of the product life cycle will continue to be one of our priorities. At the same time, there is a need to realize that data-driven insights and better integration across supply chains will help ensure more efficient and sustainable ways of working.

We have to hurry and operationally rethink the approach to efficiency at all levels and in every department. We must thus commit ourselves to constant innovation. In the long term, this approach, supported by digital transformation, will create opportunities for success and further development of the OPTOKON Group.

OPTOKON products can be found far and wide, from OPTOKON cabling at the world's largest observatory in Chile, where 16 telescopes are connected by our optics and converters to the armies of over 20 countries, NATO units where OPTOKON products transfer data in advanced communication and IT technology. And in what can be considered a paradox, we also supplied cabling and converters to a power plant in Japan, a country that is a technological leader in the field of fiber optics.

In 2023, the OPTOKON Group plans to expand its activities in Malaysia with local partners, including the Malaysian Meteorological Institute SIRIM, where we have set up a calibration laboratory for measuring instruments. And because world-class companies calibrate their measuring instruments and optical converters there, it actually means that the world sets its gauges according to Czech norms. As we also manufacture passive optical connectors in a country that used to be an English colony, the staff there are trained in the European working style.

We plan to move some of our passive component production to our Saudi Arabian facility where we have additional production due to lower cost and can thankfully do so without staff reductions at our headquarters. And to this end, it is necessary to take into account the price of possible transport, which has recently become enormously more expensive.

Cooperation will be enhanced this year with our partners at the technical universities in the need for constant innovation to stay ahead of the competition. We will also build on our excellent cooperation with the CzechTrade agency, where with its support, we are now trying to penetrate commercially into the American continent.

The post-pandemic effect is still in place, particularly in the Czech Republic, where for some, the thinking and the ambition of the people have changed. This is why we are trying to put young students into practice. We cooperate with the Prague Czech Technical University and the Polytechnical University of Jihlava and list diploma theses for students who are on internships with us and thus motivate them.

Looking ahead, 2023 might bring its share of challenges, but I am sure by working together, staying focused on our priorities, and putting our customers first, we will be able to scale greater heights, challenge new initiatives, increase brand awareness, strengthen our operations in all the markets that we operate in, and introduce new technologies and solutions.

Company News

Visit to OPTOKON by Oman Government Delegation

Following the Future Forces Exhibition & Forum 2022 in Prague in October, OPTOKON received a visit from a government delegation from Oman. The delegation was led by Vice Admiral Mr. Abdullah Khamis Abdullah, who was accompanied by his colleagues from Oman.

Staff from the Sales and Technical departments designed a program to give the delegation an overview of OPTOKON, which commenced with a presentation of the company. This was followed by a tour of the company, which also took in the EMC chamber and PŠTC room, where they were shown examples of our devices in use.

Before departing, the delegation presented OPTOKON with an emblem signifying the strong relationship between OPTOKON and Oman.



OPTOKON awarded TOP PARTNER of 2022

OPTOKON was awarded the TOP PARTNER of 2022 by Fidelis Cybersecurity. The award was not only for joint business and project successes but also for close cooperation in solving current challenges in the field of cyber defense and security. OPTOKON has been a partner of Fidelis Cybersecurity since 2018 and has implemented a number of projects in the field of cybersecurity, in addition to participating in the organization of several educational workshops and seminars for customers and partners.



Company News

Turkish students training at OptoNet

OptoNet Communication successfully completed the construction and equipping of the OptoNet Training Centre in August 2022.

As part of the ERASMUS+ project, sixteen students from Mimar İzze Baysal Mesleki in Anadolu İiseli teknik from Bolu, Turkey accompanied by three teachers, came for a study stay from 9th to 25th November.

As part of a comprehensive program for students, the group was divided into four teams that rotated between different OptoNet and OPTOKON sites. The students worked in groups to solve IT assignments, became acquainted with the OPTOKON production program, mastered the basics of fiber optic splicing and were given a tour of the Accredited Laboratory for Optical Cable Testing at OPTOKON Kable Co., Ltd. in Pelhřimov.

OptoNet prepared a program that included a visit to the Department of Informatics at the Regional Office of the Vysočina Region, on 11th November. The visit was connected with a presentation of the project for the ROWANET backbone optical infrastructure of the Vysočina Region And a tour of the data center at the Regional Office.

In addition, a tour of the Polytechnic University of Jihlava on 16 November took place including a lecture on the Erasmus program in the university, active participation in the open day for 4th-year students of high schools from the Vysočina Region with a tour of the modern workplaces and laboratories of the Department of Technical Studies of the polytechnic.

At the end of their study stay, the students were presented with certificates of internship at OptoNet Communication spol. s r.o.



DATOVÉ CENTRUM VYSOČINA

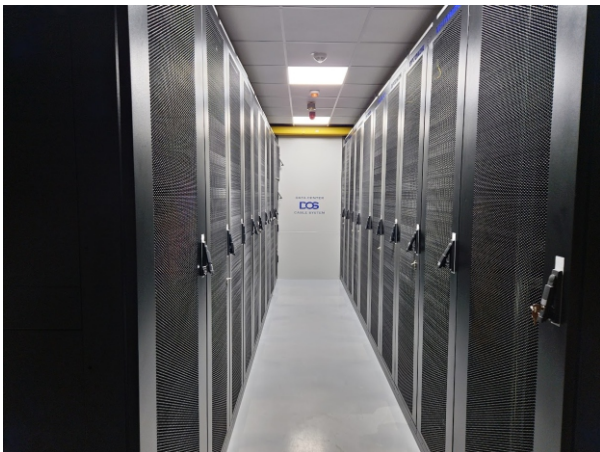
Rostislav Prosecký, the director of OptoNet Communication, explains the new OptoNet data center in Jihlava.

At the end of October 2022, OptoNet Communication spol. s r. o. completed the largest investment project since its establishment in 2007 - DATOVÉ CENTRUM VYSOČINA. The data center is operated according to the strictest international standards for data centers, in accordance with the TIER IV standard, with service availability of 99.995%.

DATOVÉ CENTRUM VYSOČINA offers comprehensive services in the field of operational, cyber and related physical security. The services are operated in cooperation with leading companies and experts. We are also preparing for certification according to ISO 27001 information security management.

Company News

- Backbone ("PAN European" a "Viking Network")
- Data Center Vysočina Optical Network



Secured with FOTAS

DATOVÉ CENTRUM VYSOČINA builds on the long-term experience of OptoNet Communication spol. s r.o. using the latest network elements.

In addition to the technology of the independent two-zone power supply, including duplicate UPS and backup sources, using two motor generators, the data center is equipped with modern technological elements of air conditioning using free cooling to reduce the carbon footprint and recuperation of waste heat from the operation of data halls.

In terms of building and cyber security, it uses the OSMS (OptoNet Secure Monitoring System), which ensures local and remote security of NOT IT and IT technologies, including cyber threats and attacks. The OSMS system actively uses a multilayered EVS electronic entry system using biometric elements, combined with a PTZS emergency alarm system and CCTV for monitoring the outer perimeter of the building and the data halls. The monitoring of all operational conditions and all supporting technologies also uses a unique technology developed by OPTOKON - a perimeter protection system using optical fiber known as FOTAS. This so-called "invisible optical fence" system works as a continuous vibration and acoustic sensor that can identify alarm conditions up to 160 km away.

Company News

Mikuláš at OPTOKON

In the Czech Republic, the Mikuláš tradition is almost as big a deal as Christmas, which is celebrated on December 24 in the Czech Republic. The famous Czech Advent tradition takes place on the eve of Mikuláš name day on December 6th. The pre-Christmas celebration is held throughout the villages, towns, and cities of the Czech Republic. On the evening of December 5, Mikuláš walks the streets accompanied by an angel and a devil. The angel represents good and the devil represents bad. During the celebration, Mikuláš asks the children whether they have been good during the past year. After reciting a poem or song for Mikuláš, the angel and the devil, good children receive treats such as candies, fruits, nuts, or toys, which are given to them by the angel. Bad children receive lumps of coal or potatoes from the devil.

As is a tradition at OPTOKON, staff are given gifts for themselves and their families to help the celebrations along. On Monday, December 6, a ceremonial meeting of OPTOKON employees took place, including employees of the subsidiaries OptoNet Communication and OPTOKON Kable. In the hall of the OptoNet training center, General Director Jiří Štefl evaluated the ending year, highlighting the year's successes and presenting areas where there is room for improvement. After the discussion with the staff, small Mikuláš gifts were distributed.



OPTOKON Testing division

The OPTOKON testing division can be divided into two laboratories. One of two laboratories can offer calibration services and the second laboratory can offer both electromagnetic compatibility (EMC) tests and climatic and mechanical tests services.

In the Czech Republic, CAI (Czech Accreditation Institute) has developed an accreditation system, in compliance with international requirements and rules (established by EC and EA-European cooperation for Accreditation), which seeks an achievement of a system comparable with the systems used in EU and EFTA countries. OPTOKON Testing division has been awarded by two CIA certificates according to ISO 17025. See below.

OPTOKON Calibration Laboratory

was accredited in 2003 according to ISO 17025 - accredited body number 2315. For more than 15 years, its accredited services have been a key part of the OPTOKON fiber optic portfolio. The primary activity of the calibration laboratory is the calibration of fiber optic measuring instruments and from 2020 the calibration of thermometers and hygrometers. Calibrations can be divided into:

- calibration of measuring instruments for external customers
- calibration of gauges manufactured by OPTOKON
- calibration of internal gauges used within OPTOKON



Company News

The most important segment is calibration for external customers. On this area we have already built very good contacts with existing customers for the continual calibrations. We are ready to satisfy our new customers with our calibration services, as well. The calibration laboratory currently offers a wide range of calibration services.

Accredited calibration procedures include:

- optical power meters
- optical attenuators
- optical radiation sources
- optical backscatter attenuation meters
- optical reflectometers - OTDR
- optical spectrum analysers - OSA
- spectral responsivity of optical radiation detectors
- thermometers and hygrometers

The OPTOKON Calibration Laboratory has two workplaces. The main headquarters and workplace of the calibration laboratory are in the Czech Republic in Jihlava - OPTOKON Jihlava, where all accredited calibrations of measuring instruments for fiber optics are performed, including calibration of thermometers and hygrometers. The operation of another site is managed from there - OPTOKON Malaysia, which was established in 2016 as part of the OPTOKON branch. In Jihlava, all calibration data is processed, based on which accredited calibration certificates are issued for both sites. At the Malaysian site, where calibrations of optical power meters were initially carried out, it was gradually possible to respond to customer demand and expand the range of accredited services to include calibrations of optical radiation sources, OTDR reflectometers, the spectral responsivity of optical radiation detectors and OSA optical spectrum analyzers. The aim is to develop an accredited calibration service offering in Malaysia that will satisfy the requirements of customers in the region.

A further achievement of the OPTOKON Calibration Laboratory is its partnership with SIRIM SST, Malaysia's largest calibration laboratory. OPTOKON Calibration Laboratory will complement the calibration services portfolio of this laboratory with calibrations of fiber optic measuring instruments. It is intended to strengthen this partnership in the future and bring more satisfied customers to both laboratories.



As part of the accreditation cycle, the calibration laboratory underwent a scheduled periodic surveillance audit in November 2022. The auditors set out to assess the site's eligibility requirements in Malaysia in more detail. No serious non-conformities were found during their visit and the Malaysian site, like the site in Jihlava, is authorized to perform all accredited services according to the scope of accreditation. At the same time as this audit, the service offering of the Malaysian site was extended to include an accredited procedure for the calibration of optical spectrum analysers - OSA.

OPTOKON Testing Laboratory

was accredited in 2020 according to ISO 17025 - accredited body number 1755. The laboratory department of mechanical and climatic tests is equipped for mechanical and climatic tests mainly for optical cables and similar components. Some of the measurement equipments can be to use for other electronic devices tested according to MIL standards and ČOS standards.

Several mechanical and climatic tests have been accredited and this part laboratory has been certificated according to the ISO 17025 standard. Test accreditation is valid for 13 tests according to EN 60794-1-21 and EN 60794-1-22 standards.

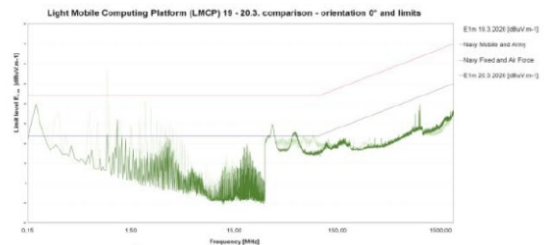
Company News

The EMC department of testing laboratory is equipped by very good Lindgren semi-anechoic chamber providing excellent environment for accurate measurement. The laboratory can perform at this time Electromagnetic Interference (EMI) tests in frequencies from 9,5 kHz to 18 GHz according to the MIL-STD 461 standard for military electronic devices and EN 55025 standard for consumer electronics. Very precise Schwarzbeck antennas and the Rohde&Schwarz measurement receiver ESR 26 (to 26,5 GHz) are used for the EMI measurement.

The OPTOKON Testing Laboratory has been successfully checked by CAI in November 2022. We have also asked the CAI to evaluate our EMI (Electromagnetic Interference) tests meeting the MIL-STD-461G and CISPR 25. This November's the CAI checking inspection has been for us successful, and we have been awarded by CAI certificate for the mentioned EMI tests.

However, the OPTOKON Laboratory is able to do other tests. We are able to do the EMC (Electromagnetic Compatibility) tests on very good technical knowledges and experiences. The OPTOKON Testing Laboratory is ready to offer its services in the testing to all clients looking for EMI tests and optical fibre cable mechanical and climatic tests.

[Download OPTOKON Testing Division brochure](#)



[Download OPTOKON Testing Division brochure](#)

New Products

NEW GENERATION OF LMCP FAMILY

LMCP-28H-NGe

Light Mobile Computing Platform – Extended version

- Intel® Xeon® processor
- **Up to 256 GB RAM ECC DDR4**
- 2x removable SSD 2.5 inch, RAID 0,1
- **Wide operating temperature range: -40 to +85 C**
- **Uplink 10/25 Gbps**

LMCP-28H-NGa

Light Mobile Computing Platform

- Intel® Xeon® processor
- Up to 64 GB RAM ECC DDR4
- 2x removable SSD 2.5 inch, RAID 0,1
- **Wide operating temperature range: -40 to +85°C**
- **Uplink 1/10 Gbps**

LMCP-7H

Light Mobile Computing Platform

- Intel® Xeon® Processor
- Up to 64 GB DDR4
- Wide operating temperature range: -32 to +75 °C



TEMPERATURE RANGE: -40 TO +85 °C
UPLINK 10/25 GBPS

[For more detailed information contact our sales department SALES@OPTOKON.COM](mailto:SALES@OPTOKON.COM)

AICP-X128 Artificial Intelligence Computing Platform for FOTAS

Intel® Xeon® Processor
 Up to 128GB ECC RDIMM
 3x fiber cabling density over LC connectors
 nVidia RTX™ A4000 accelerator

The AICP-X128 is a powerful server with Intel® Xeon® Processor CPU and high-performance NVIDIA® card designed as a management and processor unit for the FOTAS acoustic sensing system. The AICP-X128 computing and processing power is designed especially for modern AI applications, integrates maximum compute and networking throughput and enables deep learning and artificial intelligence capability through the use of neural networks.



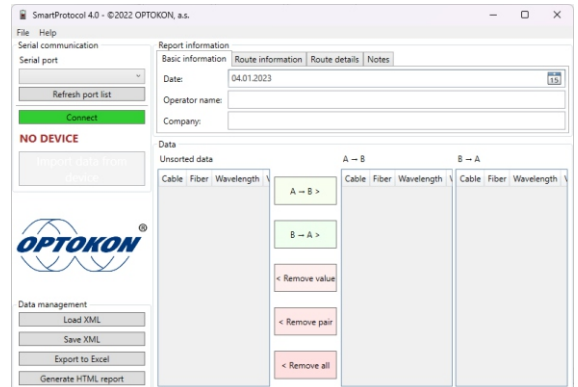
[For more detailed information contact our sales department SALES@OPTOKON.COM](mailto:SALES@OPTOKON.COM)

New Products

SmartProtocol PC Software

The SmartProtocol software is a flexible solution for data capture, analysis and reporting of fiber optic loss. It is optimized for OPTOKON optical testers: PM-800, PM-212, PM-830 and OFT-820.

- Data recording from internal memory (for example PM-800 Power Meter) or TXT file
- Creation of Test protocols from recorded data
- Recording Instrument serial numbers
- Reports can be imported or saved in TXT and Excel for printable format.
- Simple operating and editing of protocols



[The datasheet can be downloaded here](#)

[The Smart Protocol V4 can be downloaded here](#)

PPM-212 Pocket optical power meter - USB probe

Small size, lightweight
 SM and MM fiber testing
 21 working wavelengths: CWDM + 850,1300 and 1625nm
 Absolute and Relative optical power measurement
 USB port for USB probe - full control via simple commands
 Power supply LED indicator



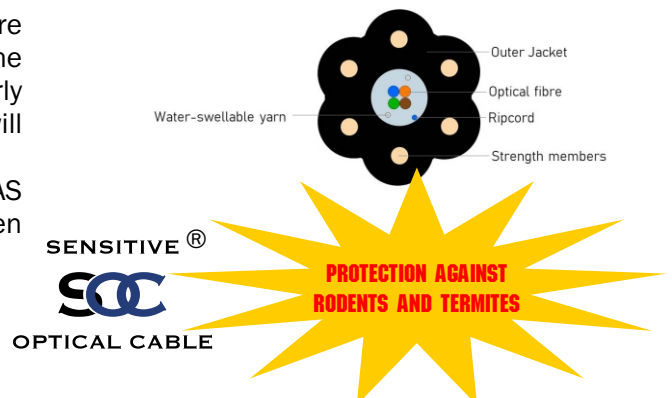
The PPM-212 optical power meter - USB probe is a small, compact tester without a display or battery. The tester is designed to be used as a USB probe as part of a testing workstation. The small size does not prevent the optical meter from fulfilling all technical requirements. The tester is equipped with a USB interface. It ensures power supply, data reading and transferring into data processing SW.

[The datasheet can be downloaded here.](#)

Outdoor Sensitive Star Detection Cable

After successful tests of the current cable design, we are preparing another detection cable design. In contrast to the already existing version of the cable, which is particularly suitable for installation on fences, the new cable design will be intended primarily for laying directly in the ground. In the case of direct installation in the ground, the FOTAS system with the new cable construction achieves an even higher sensitivity than when using the original cable.

[The datasheet can be downloaded here.](#)



OPTOKON January 2023 Newsletter prepared by Paul Simpson/OPTOKON Marketing Department