

Newsletter



OPTOKON, a.s.
Červený Kříž 250, 586 01
Jihlava, Czech Republic
WWW.OPTOKON.COM, OPTOKON@OPTOKON.COM

October Newsletter 2023

Welcome to the latest edition of the OPTOKON newsletter, where we bring you the most exciting developments and achievements within our organization.

On Tuesday, September 19, 2023, OPTOKON had the honor of hosting a field meeting of the DSIA (Defence and Security Industry Association of the Czech Republic). Members of the Presidium visited our headquarters in Jihlava, where they were given a tour of our state-of-the-art OptoNet Communication Data Center. It was an excellent opportunity to showcase our cutting-edge infrastructure and cyber security capabilities.

In the field of optical communication technologies, OPTOKON is making significant strides by expanding into the Australian market. We have established a new representative office in Adelaide, marking our return to this market. The initiative has already generated buzz after our recent participation in the 'Security Exhibition & Conference' in Sydney, where our innovations captured the attention of visitors.

Our innovative approach continues with the pilot installation of the FOTAS perimeter security system in Adelaide, Australia. This is a significant step forward in enhancing security and surveillance capabilities in the region.

LEMO connectors are used in various industries, including medical, industrial, audio/visual, telecommunications, military, scientific research, and measurement. OPTOKON is now an official manufacturer and supplier of LEMO connectors and cabling systems, offering top quality and reliability.

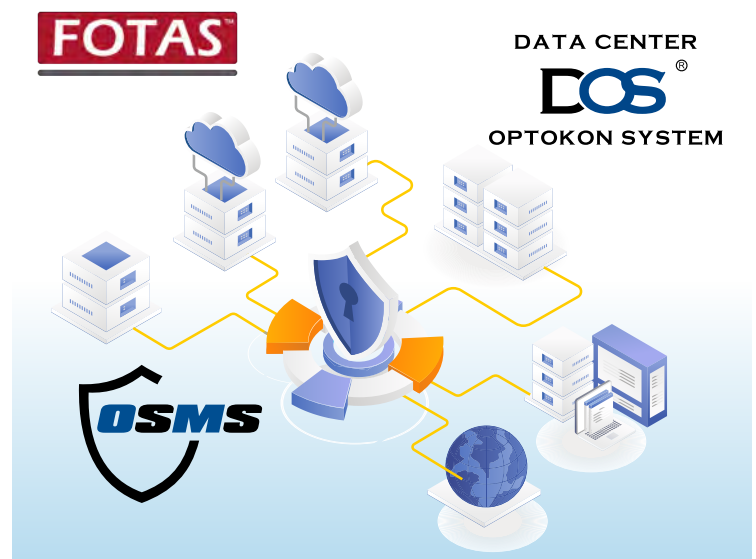
CYBER SECURITY

Secure Your digital journey with comprehensive end-to-end cyber security offerings, delivered by a team of certified experts. [Read more on page 6.](#)

INFRASTRUCTURE SOLUTION

- SMART SECURITY FOR EVERY DATA CENTRE

..... WHERE INNOVATIVE END-TO-END SOLUTION ARE TO DESIGNED



OPTOKON SECURITY SOLUTION:

- FOTAS™** - Physical Perimeter Security
- DOS®** - Data Center OPTOKON Cabling System
- OSMS** - OptoNet Secure Monitoring System

In this issue

Forthcoming Exhibitions & Recent Exhibitions	2	OPTOKON ISO quality recertification	7
The return of OPTOKON to the Australian market	3	OPTOKON are a proud partner to the broadcast market	8
OPTOKON Australia Representative Office and FOTAS project	4	Optoelectronics in competition in the Vysočina region	9
DSIA of the Czech Republic Meeting in OptoNet	3	Tactical Sensing System FOTAS	9
Cyber security seminar hosted by OptoNet	5	OPTOKON Internships for Turkish students	10
OptoNet Communication Cyber Security Solution	6	Supervisor - HMA CONNECTORS	11

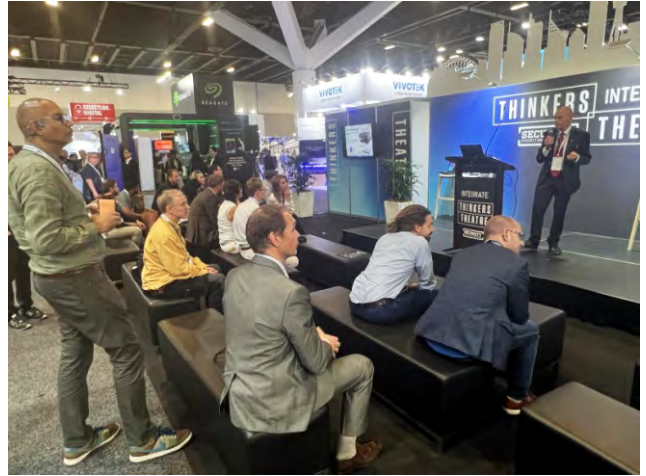


Recent Exhibitions

Security Exhibition + Conference 2023

30.8.2023 - 1.9.2023

International Convention & Exhibition Centre,
14 Darling Drive, Sydney, Australia



The security technology sector is a priority in Australia, and Czech companies from the sector attracted well-deserved attention at the Security Exhibition in Sydney

ECOC 2023

2.10.2023 - 4.10.2023, SEC, Glasgow, Scotland
OPTOKON Stand 744



65th anniversary of the establishment of the **Repair Security Center Lázně Bohdaneč** September 21, 2023.



OPTOKON Forthcoming Exhibitions

EDEX 2023

4.12.2023 - 7.12.2023

Egypt International Exhibition Centre
El/Moshir Tantawy Axis,
Cario Governate 4440301, Egypt.
OPTOKON booth: Hall H4, Stand: H4-C50

WORLD DEFENSE SHOW 2024

4.2.2024 - 8.2.2024

Riyadh, Saudi Arabia
OPTOKON Middle East booth: XE8.1 (A)

Company News

The return of OPTOKON to the Australian market



OPTOKON Australia rep. office and service center
2 Discovery Way, Mawson Lakes SA 5095
Tel. 1300 078 324
AUSTRALIA@OPTOKON.COM
WWW.OPTOKON.COM

In the field of optical communication technologies, OPTOKON has not stood still and is now expanding back into the Australian market with a new representative office in Adelaide. This initiative marks not only the company's return to the Australian market but also brings a range of innovations that recently caught the attention of visitors at the 'Security Exhibition & Conference' in Sydney.

At this event, the OPTOKON team had the opportunity to showcase their latest optical communication technology, including the revolutionary perimeter protection technology known as FOTAS, which quickly gained significant attention from potential customers across various industries. FOTAS represents progress in security and perimeter protection, serving as further evidence of OPTOKON's ongoing commitment to innovate and provide effective solutions for its customers and partners.

In addition to the exhibition, the new representative office in Adelaide in company PowerTech Energy will serve as a hub where customers can obtain information about OPTOKON's latest optical solutions and technologies. An essential aspect of this new branch is its role as a service center for our customers and partners. Our Adelaide office is ready to provide support and expert guidance to help customers effectively utilize our products and technologies.

The opening of the new representative office in Adelaide and participation in the 'Security Exhibition & Conference' are strategic steps for OPTOKON in re-establishing its presence in the Australian market. We are excited about the interest we have generated among potential customers and look forward to future collaboration and innovation.

OPTOKON Australia Representative Office and FOTAS pilot project

OPTOKON and several other technological companies from the Czech Republic presented themselves at the Security Exhibition, which took place from 30 August to 1 September, 2023 at the ICC exhibition centre in Sydney. The Czech exhibition was prepared by the commercial and economic section of the Embassy of the Czech Republic in Canberra as part of the Economic Diplomacy project.

OPTOKON a.s. and its partner PowerTech Energy Pty Ltd introduced Fibre Optic Based Security System FOTAS using artificial intelligence and a comprehensive solution for Military tactical optical networks. The exhibition visitors have acknowledged FOTAS as a unique solution, first of its kind on the Australian market yet.

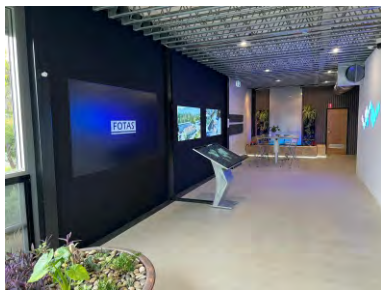


Company News

OPTOKON joining forces with PowerTech Energy Pty Ltd expands footprint with an additional regional Representative office and Service Centre enhancing OPTOKON's current global distribution network. This Partnership accelerates the growth of OPTOKON's presence on new markets within the Fibre Optic networks installation, operation and maintenance sector across telecommunication, datacom, wireless and offers a comprehensive portfolio of ruggedized Fibre Optics products for Defence and other heavy industries.

Following the Security Exhibition in Sydney, OPTOKON continued to Adelaide to PowerTech Energy HQ, which serves as newly established Representative Office and Service Centre of OPTOKON for Australia, New Zealand and the Pacific Islands. It was a privilege for PowerTech Energy to host the announcement of partnership between both companies and also to present the very first installation of FOTAS in Australia by OPTOKON's CEO Mr. Stefl. This highly anticipated venue was attended by important representatives from businesses and professional public, including companies supplying Australian Defence forces.

PowerTech Energy is collaborative company located in the heart of Australia's Defence and Technology Centre Mawson Lakes. Automation and technology specialist focussed on innovative solutions in renewable energy, data, security and defence sector.



Defence and Security Industry Association of the Czech Republic (DSIA) Meeting in OptoNet

On Tuesday, September 19, 2023, OPTOKON had the honor of hosting a field meeting of the DSIA. Members of the Presidium visited our headquarters in Jihlava, where they were given a tour of our state-of-the-art "DATOVÉ CENTRUM VYSOČINA". It was an excellent opportunity to showcase our cutting-edge infrastructure and capabilities.



Company News

Cybersecurity, resilience and protection of sensitive information in the defence and security industry of the Czech Republic



Asociace obranného a bezpečnostního průmyslu České republiky
Defence and security Industry Association of Czech Republic

We would like to inform you about the upcoming nation-wide seminar "Cyber security, resilience and protection of sensitive information in the defense and security industry of the Czech Republic", which will be held under the auspices of the president of Defence and Security Industry Association of the Czech Republic RNDr. Jiří Hynek and doc. Ing. Zdenek Horák, Ph.D., rector of technical university VŠPJ, on 21 November 2023 in the DATOVÉ CENTRUM VYSOČINA, in OPTOKON a.s. Headquarters.

AGENDA

Expert presentations by representatives of the Ministry of Defence of the Czech Republic, the National Office for Cyber and Information Security, academia and the commercial sector

Guided discussion on the development of cyber security and resilience in the Czech defence and security industry, on the possibilities of cooperation, exchange of information, experience, best practice examples

Conclusions of the roundtable, preparation of minutes, determination of further procedures



Company News

OptoNet Communication Cyber Security Solution

The rapid development and application of big data, industrial internet, cloud computing, artificial intelligence, and other new technologies are driving advancements in businesses digital services, leading to a prosperous digital economy. In the context of frequent cybersecurity incidents, businesses are increasingly aware of cybersecurity strategies. Additionally, different countries and regions have legislated to manage cybersecurity vulnerabilities. Over the past few years, the number of security threats in cyberspace has increased dramatically. Such threats – which can cause major losses – include supply chain security incidents. Vulnerability exploitation remains one of the leading causes of security incidents. Building end-to-end supply chain vulnerability management throughout the product life cycle is an important means to reduce risks on live networks and ensure service continuity. Our company - OptoNet Communication - as part of the activities of our highly physically secured VYSOCINA DATA CENTER - offers companies comprehensive supply chain vulnerability management during the product life cycle. This is an important means of reducing risk in live networks and ensuring service continuity.

Cloud security

OSMS - OptoNet Secure Monitoring System

CLOUD & AI SOLUTION

OptoNet Communication spol. s r.o., Member of OPTOKON Group, offers comprehensive information and cyber security solution for business partners, both on the partner's infrastructure and on its own cloud solution - OptoNet Secure Cloud. This comprehensive process includes risk analysis, design of appropriate solutions covering user behaviour, design of appropriate security for end stations, servers and networks, backup and risk prevention. All solutions are designed for the partner to be ISO 27001 compliant.

- Physical security
- Identity authentications
- Network security
- Server security
- Application security
- Data security
- Operation and maintenance security



Mgr. Antonín Příbyl
IT Security Analyst

One center

Intelligent security operations

Seven lines of defense

Systematic security construction

Four-level zones

Tailored security services

Intelligent security operations

AI-assisted alarm handling
Managed Detection Response (MDR)

Cloud native security services

Services working together
Border protection - Comprehensive defense

Unified security architecture

Fragmented - Unified management and distributed prevention & control
Assembled solution - Service-oriented, dedicated solution



OptoNet
Communication
DATOVÉ CENTRUM VYSOČINA
MEMBER OF OPTOKON GROUP

Company News

OPTOKON now using worldwide OPTOKON.COM email accounts and web domains.

All OPTOKON Group employees will move to OPTOKON.com email addresses on October 30, 2023. This update better aligns OPTOKON's place within united OPTOKON Group, and will allow us to streamline communications across our businesses.

This change of email address does not reflect any additional changes within our organization. We understand that many of your interactions with our organization occur electronically, and so all old OPTOKON email addresses will remain active for 6 months to allow our partners ample time to update their business records.



Similarly, we are also preparing the unification of domains for the branch websites, which will be under the main domain OPTOKON.COM. This is how we want to unify all domains within the entire OPTOKON Group.

WWW.NAME.OPTOKON.COM

OPTOKON ISO quality recertification

The goal of OPTOKON, a.s., as a long-standing manufacturer in the field of optics, is to produce products at the highest possible quality level. Therefore, this area is given due attention for a long time. The way to maintain the high quality of production is also the implemented integrated quality management system, which is built according to international standards. The functionality of this system is verified by audits carried out by certification companies. The first certification audit of the quality system according to the ISO 9001 standard was carried out at OPTOKON, a.s. in 1999. Subsequently, in 2015, the system was extended to include the requirements of the AQAP 2110 standard. As part of the company's involvement in environmental improvement activities, the requirements of ISO 14001 were implemented in the integrated quality system and the system was certified in 2017.



The integrated quality system is continuously developed according to internal and external suggestions, which help it to be an integral part of the production process and thus ensure that a high standard of production is maintained. This year, a recertification audit according to ISO 9001 and ISO 14001 standards was carried out by EZÚ Praha, s.p., our long-time collaborator in this area. During the audit, the entire company was audited and we demonstrated how the requirements of these standards are applied in practice at individual workplaces. From the auditors' point of view, it was stated that the integrated quality system implemented in OPTOKON, a.s. meets all the requirements of ISO 9001 and ISO 14001 standards and is a tool that guarantees that production is at a high quality level. Each audit brings another perspective on the implemented integrated quality assurance system and this audit also brought several suggestions for further improvement of the implemented system. On the basis of this recertification audit, OPTOKON, a.s. was awarded a certificate according to the above mentioned standards valid for the next three-year period.

Continuous improvement of the quality level of all products is the goal of all employees of OPTOKON, a.s., which is a guarantee of prosperity and long-term development of the company.

Company News

OPTOKON are a proud partner to the broadcast market



LEMO connectors are used in medical, industrial, audio/visual, telecommunications, military, scientific research and measurement applications.

We are proud to announce that we have obtained certification from LEMO as official manufacturer and supplier of LEMO connectors and cabling systems.

This partnership is a significant step to strengthen OPTOKON's position in the Broadcasting Technology market.

OPTOKON customers in Czech Republic, the Slovak Republic, the Turkish Republic, and Saudi Arabia, can now rely on top quality and reliability of LEMO Connector's manufactured and supplied by OPTOKON and

OPTOKON service center offer LEMO spare parts ready for fast delivery to customer and our technicians test continuously quality and guaranteeing reliable operation of all our products for broadcasting.

OPTOKON aims to achieve a stronger position in the Broadcasting market through innovation and maintaining excellent product quality. This certification confirms their progress towards their strategic goals in the broadcasting market.

OPTOKON and LEMO SOLUTION
for broadcast & audio/video applications



[Download brochure](#)

LEMO connectors are used in medical, industrial, audio/visual, telecommunications, military, scientific research and measurement applications.



OPTOKON cable that meets all LEMO requirements



[Download datasheet](#)



Company News

Optoelectronics shined in entrepreneurial competition in the Vysočina region.

In the Vysočina Region, the company OPTOKON, engaged in the development, testing and production of optical and optoelectronic devices, received the PwC title Company of the Year 2023.

The winning company OPTOKON is a leading manufacturer of optical components for the connectivity and infrastructure of organizations of all sizes. The wide range of products includes a comprehensive range of passive and active devices, ribbon connectors, fiber optic testers and our own unique spread beam technology. A key segment in the broad product portfolio is a range of robust hardened devices intended for use in military and security systems. In 1999, the company founded its own independent calibration laboratory, which has been offering fully accredited services since 2003. At the same time, it is expanding its manufacturing activities in Malaysia.



"For us, our vision and convictions are a real driving engine that drives us forward towards development and innovation, not only for the benefit of us and our company, but also for the entire population," says the CEO of the winning company, Jiří Štefl. The main customers are, on the one hand, international telecommunications companies, data center customers and companies building optical fiber interconnection networks up to households and, in the last ten years, the military building tactical networks. Customers are also research institutions and universities, which significantly helps the further development of the company.

<https://www.kr-vysocina.cz/v-podnikatelskych-soutezich-na-vysocine-zazarili-vcelar-a-optoelektronika/d-4122716>

Tactical Fiber Optic Distributed Acoustic Sensing System FOTAS

Tactical FOTAS is a portable fiber optic threat detection system designed to detect intrusions on and around strategically placed fiber optic cables. It is intended for use in important zones and areas, requires no electronic devices or power sources in the protected area, and is easy to install and operate.

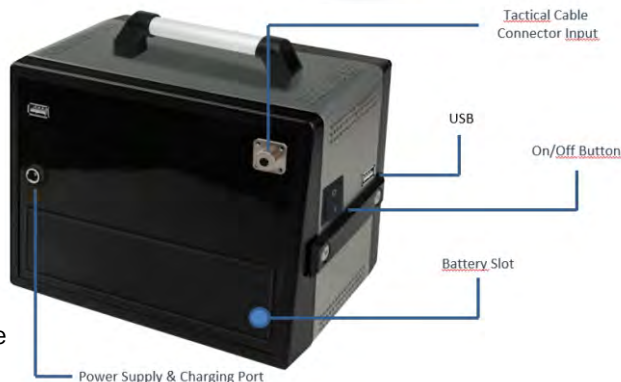


Various types of OPTOKON cable drum with special [Download datasheet](#)

Outdoor Sensitive Star Detection Cable [Download datasheet](#)



Wireless or wired access to the sensor device



For more information contact our sales department at SALES@OPTOKON.COM

Company News

OptoNet Communication Training Centre - Internships for Turkish students

OptoNet Communication spol. s r.o. has prepared two rounds of student internships for students in the Turkish school during the summer holidays. The first course was held from 10.7.2023 - 28.7.2023 from Mimar Izzet Baysal Vocational School, BOLU. The second course for students from Istanbul Kartal Atalar Vocational and Technical Anatolian High School was held from 31.7.2023 - 18.8.2023

The main program of the course was to introduce students to the product portfolio and activities of OPTOKON GROUP companies. Students and their teachers were introduced to the production and business activities of OPTOKON a.s., OPTOKON Kable Co., Ltd., s.r.o. and OptoNet Communication spol. s r.o. through a full-day presentation.

We divided the students into working groups that were assigned to different rotating programs within the production and service process. They got to know and experience the production of fine-mechanical passive optical elements, welding of optical fibers and their measurements.



During the internship, the students visited the production plant of optical cables in the company OPTOKON Kable Co., Ltd., s.r.o. in Pelhřimov, where they got acquainted with the production process of optical cables. At the same time they practically tried some strength and mechanical and temperature tests of optical cables.

We introduced the students to the basic construction of fiber optic cabinets for terminating fiber optic routes and they practically tried working with fiber optic cables, pigtailed and patch cords in the cabinet. We demonstrated the production program of measuring instruments for fiber optics and the connection to the certified Calibration Laboratory OPTOKON a.s.

Furthermore, we introduced students to the technological equipment of the Vysočina Data Centre and presented security and SW tools ensuring operation including perimeter security of the FOTAS system. The holiday internship included professional and social programs under the auspices of OptoNet Communication spol. s r.o.:

- visit to the Polytechnic University in Jihlava
- visit to the Regional Office of the Vysočina Region and a professional excursion to the IT datacentre.
- visit to the historical buildings of the Jihlava City Hall
- visit to the Training Centre of the Vysočina Air Rescue Service.



Students and their teachers took away from the internship a lot of professional information from the field of fibre optics and knowledge of data management and protection, including the dignity of Czech history and technical maturity of contemporary Czech society.

Company News

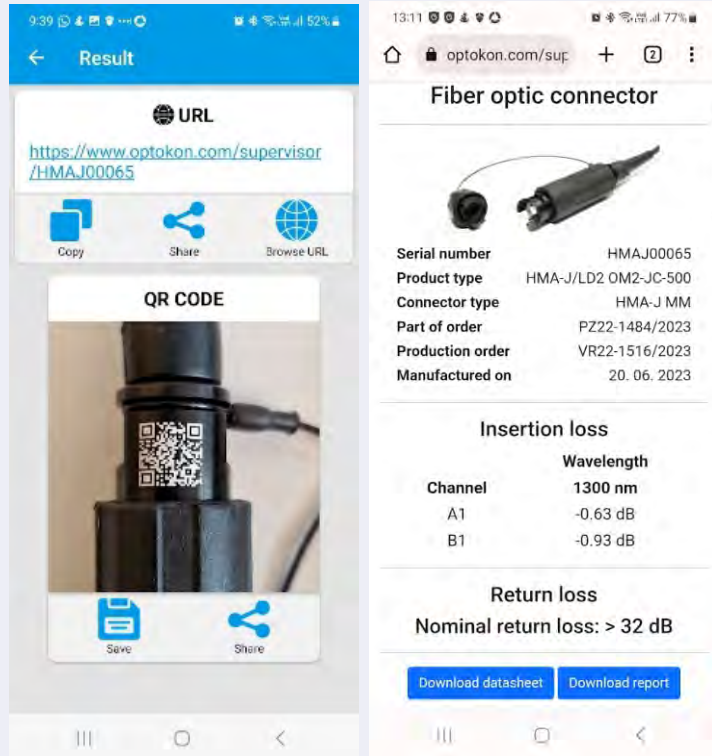
OPTOKON Supervisor - HMA CONNECTORS

OPTOKON SUPERVISOR is a specialized system for monitoring and analyzing the production of optical connectors. It is operated within the OPTOKON domain network. Every connector is marked with a QR code, and the measured data is saved to a database. If you scan the QR code, you can access the measurement protocol and additional documents relevant to the product.

Displaying Measurement Protocol and Generating Report

To view the measurement protocol output, you can use a mobile phone with a QR code scanning application. After scanning the QR code of the connector, the mobile application on the phone will display a link to view the measured values with the option to download the measurement protocol.

Clicking the link will display the connector's page based on its serial number. On this page, the customer will see not only the measured values but also additional information such as the connector's serial number, product type, order number, and manufacturing date. In addition to this information, the page provides the option to download a catalog sheet and measurement protocol, both available for the specific connector.



To download the protocol and datasheet on a mobile phone, simply follow these steps: Scan QR code and open link

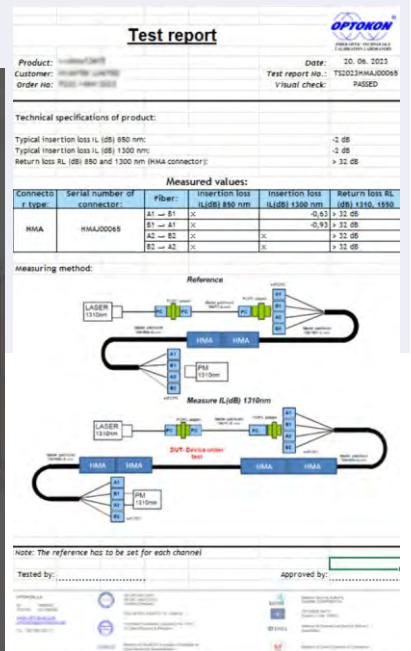
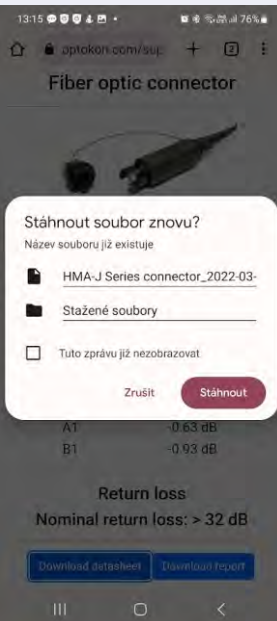
Display of measured values on your mobile phone



Download the datasheet to your mobile phone



Viewing the datasheet on the mobile phone



New Products

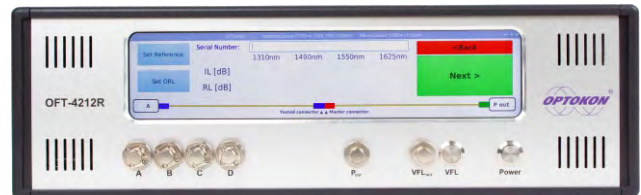
NEW TESTER

OFT4212R is a connector assembly test station, equipped with set of Light sources, Optical Return Loss module, four channel power meter and control unit with touch display. This solution provides full automated test of connector with graphical guidance. Serial numbers of tested connectors can be entered manually or by QR code reader. Measured values are checked if they are within expected range, then displayed in GREEN or RED colour as a warning.

If there is a warning, the measurement can be easily repeated. All measured data are automatically stored on local SSD.

Applications:

- Single connector test with Insertion loss at 1310,1490,1550 and 1625nm, Return loss at 1310 and 1550nm.



For more information contact our sales department at SALES@OPTOKON.COM

LMSW-E33M

Ruggedized 1/10 Gigabit Ethernet Layer 2/3 Managed PoE Switch

- **Modular 8/16/24 port switch**
- **1x, 2x or 3x modules - 8+2 configuration**
- **8+2 module:**
 - **2x 1/10G WAN, FO HMA or UTP**
 - **8x LAN 10/100/1000Base-T, PoE**

The ruggedized OPTOKON® LMSW-E33M switch based on the Cisco® Embedded Service Switch (ESS) 3300 extends the capabilities of establishing mobile and data networks that operate in extreme environments. The flexible, compact switch, featuring Cisco IOS® software, provides highly secure data, voice, and video communications across fixed and mobile network nodes, making it ideal for use in harsh climates.

The ruggedized OPTOKON® LMSW-E33M switch based on the Cisco® Embedded Service Switch (ESS) 3300 extends the capabilities of establishing mobile and data networks that operate in extreme environments. The flexible, compact switch, featuring Cisco IOS® software, provides highly secure data, voice, and video communications across fixed and mobile network nodes, making it ideal for use in harsh climates.

The system includes 1, 2 or 3 modules of 8x LAN + 2x WAN switches. The LAN and WAN outputs of each module are brought out on the front panel. The WAN ports provide the possibility of custom configuration: UTP metallic or fiber optic ports, or connecting the modules in a cluster.



For more information contact our sales department at SALES@OPTOKON.COM

New Products

S100G-QP28-DAC 100G QSFP28 Direct Attach Passive Copper Cable

The S100G-QP28-DAC QSFP28 passive cable assembly products, based on 4x 25G or 4x 28G structure, the product can well satisfy the next generation 100G switches, servers, routers and other products of application requirements. S100G-QP28-DAC cable adopts optimized design to reduce crosstalk and insertion loss, excellent signal integrity, fully conforms to the next generation 100G Ethernet and Infiniband EDR standards.

[The datasheet can be downloaded here](#)



QSFP-DD LR4 400 Gbps Rate Transceiver

OPTOKON 400G QSFP-DD (Double Density) LR4 module supports link length ranging from 2 meters to a minimum of 10 kilometers over Single-mode fiber (SMF) with duplex LC connector.

The Multi-Source Agreement (MSA) specifies a 4 x 100 Gbps Coarse Wavelength Division Multiplex (CWDM) optical interface for Ethernet applications, enabling 400 Gbps optical transceivers. To ensure reliable system operation, the host must implement forward error correction (FEC).

The transceiver utilizes an eight-lane electrical interface in both directions, with a nominal signaling rate of 53.125 Gbps per lane.

[The datasheet can be downloaded here](#)



Active optical cable 100G QSFP28 to 4x 25G SFP28 application

OPTOKON 400G QSFP-DD (Double Density) LR4 module supports link length ranging from 2 meters to a minimum of 10 kilometers over Single-mode fiber (SMF) with duplex LC connector.

The Multi-Source Agreement (MSA) specifies a 4 x 100 Gbps Coarse Wavelength Division Multiplex (CWDM) optical interface for Ethernet applications, enabling 400 Gbps optical transceivers. To ensure reliable system operation, the host must implement forward error correction (FEC).

The transceiver utilizes an eight-lane electrical interface in both directions, with a nominal signaling rate of 53.125 Gbps per lane.

[The datasheet can be downloaded here](#)



PUW - FUW Patchcord (cable) SMPTE LEMO FUW Male Plug to PUW Female Socket

LEMO SMPTE Fiber Optic HDTV Interconnection Cable Assembly. The cable consists of four main cores, two signal lines, two fixed cores, a tinned copper braid and a flexible PUR sheath. It is equipped with a LEMO FUW plug and a LEMO PUW socket. The cable is suitable for transmitting audio and video signals over long distances and for supplying power to system cameras.

[The datasheet can be downloaded here](#)

