

# Newsletter



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

## January Newsletter 2022

Welcome to the January 2022 edition of the OPTOKON newsletter where you can find the the traditional New Year message from the General Director of OPTOKON, Jiří Štefl, who looks back on the key events of this year and what lies ahead in 2022.



OPTOKON signs a cooperation agreement with major Turkish company AC Tasarim AS at the Security Summit.

There is also a strong technical theme to this edition, and you can find details of a whole host of new and updated product releases, plus articles on the new LMSW-E33 and LMSR-R63 unified design and the SN connector.

The management and staff of OPTOKON would like to take this opportunity to wish all our partners, customers and distributors much success in 2022.

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### New products:

#### LMSW-E33 Ruggedized 1/10 Gigabit

- Ethernet Layer 2/3 Managed PoE Switch
- 2x 1/10G WAN, FO HMA and RJ-45
- 8 or 24x LAN 10/100/1000Base-T, PoE



#### LMSR-R63

#### Ruggedized next Gen Gigabit Router

- 2x GE WAN + 4x GE LAN ports, PoE



## Recent Exhibitions

### MILITARY RADAR + BORDER SECURITY SUMMIT

5.10.2021 - 6.10.2021

Hacettepe Beytepe Congress Center, Ankara, Turkey



the Turkish Minister of the Interior and Pavel Vacek, the Czech Ambassador for Turkey, at the OPTOKON stand.



The Czech Ambassador for Turkey, Pavel Vacek, at the OPTOKON stand.



OPTOKON signs a cooperation agreement with major Turkish company AC Tasarim AS at the Security Summit. This took place on October 5, 2021 during the Ankara "Military Radar + Border Security Summit" at Hacettepe University. Read more ...

### EDEX

29.11.2021 - 2.12.2021

Egypt International Exhibition Centre, New Cairo, Egypt



Jan Fulík, the Czech Ambassador for Egypt, and Joseph NASSIF, Director of OPTOKON Egypt with the CEO of the OPTOKON Group, Jiří Štefl.



Discussion with the Egyptian Armed Forces at the OPTOKON stand.



Jiří Hynek, the President of the Defence and Security Industry Association of the Czech Republic at the OPTOKON stand.

## OPTOKON Forthcoming Exhibitions

### CABLEXX 2022

28.3.2022 - 29.3.2022

Hilton Cairo Heliopolis, Egypt

OPTOKON Stand No. G7

**OPTOKON is a Golden Sponsor for this exhibition**

### HEMUS 2022

1.6.2022 - 4.6.2022

INTERNATIONAL DEFENCE EQUIPMENT AND SERVICES EXHIBITION

Plovdiv, Bulgaria

OPTOKON Stand No. 3-N-2

OPTOKON will be jointly participating with its partners in the following exhibitions:

### WORLD DEFENSE SHOW

6.3.2022-9.3.2022

Riyadh, Saudi Arabia

### DSA 2020

28.3.2022-31.3.2022

MITEC, Kuala Lumpur

Malaysia

# Company News

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

Dear Colleagues, Customers and Business Partners,

As 2021 draws to a close I want to take this opportunity to look back on a year that although was certainly challenging in many ways, showed the strength of OPTOKON as a company – even in the toughest of times.

It was no easy task managing both the safety of our employees while continuing to provide a superior customer experience and unrivalled products. The reliability of the service we provide, and the quality of our portfolio define us as a group. We rose to the challenge and proved that as an organization we are both robust and extremely flexible in the face of change.

I am proud to say that while the pandemic might have slowed us down, it certainly didn't stop us. We completed the new Vysočina Data Center here in Jihlava and concluded a key agreement that will aid OPTOKON long into the future. This was the collaboration with the RMZ Group in Saudi Arabia where we will work with group member Binzomah Tech to strengthen our global market reach. You can read further details about this collaboration in this newsletter.

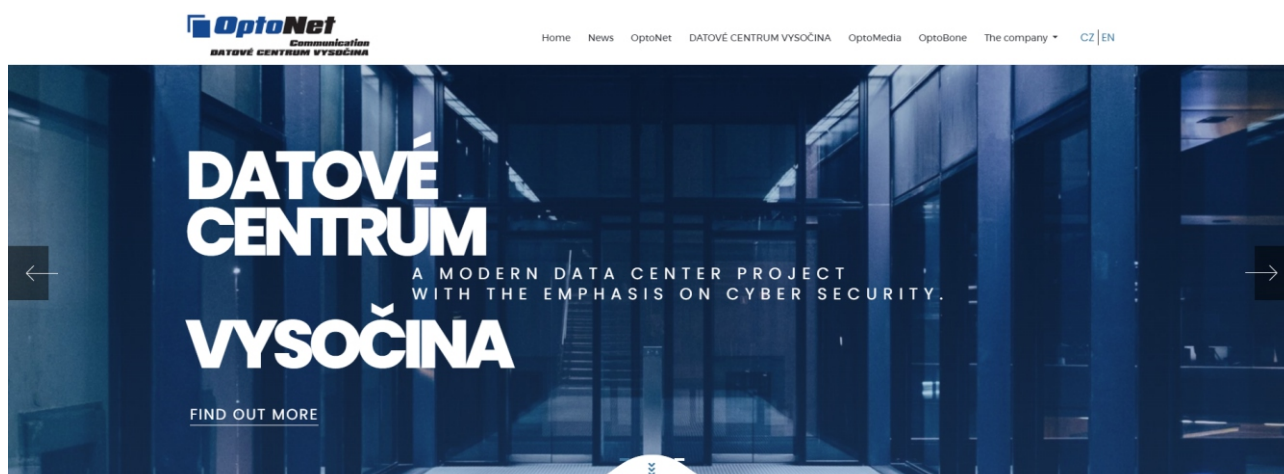
These and so many other successes were achieved in a time when we were forced to adapt to very adverse circumstances. The reality is that it will probably take a little while longer before things get back to pre-pandemic levels. However, you have all shown what we can achieve when we work and think as a team, even when we cannot be together physically.

I want to thank you all for the hard work and commitment that you have shown over the past year. Our combined strength is what makes us successful as a company.

I sincerely wish you much success in 2022.

## OptoNet Website

Please note that the OptoNet website is currently in the process of adding an English translation to the website and is expected to be completed shortly.



<https://www.optonet.cz/en>

# Company News

## Memorandum of Cooperation between OPTOKON, a.s. and LEMO-Middle East



Ahmed Abdalah  
Head of LEMO-Middle East

The OPTOKON Group is pleased to announce the signing of a Memorandum of Cooperation between OPTOKON, a.s. and LEMO-Middle East. The Memorandum was signed in December 2021 and covers research and development plus business development for parts of Europe and the Middle East. As part of the deepening relationship, OPTOKON Elektronik, a member of the OPTOKON Group, has become a business partner for LEMO products in the Turkish market.



In the following articles, Pavel Pospíchal, the Technical Director at OPTOKON looks at the new LMSW-E33 & LMSR-R63 unified design and details the new SN connector

### LMSW-E33 & LMSR-R63 unified design

The OPTOKON<sup>®</sup> LMSW-E33 ruggedized switch based on Cisco<sup>®</sup> Embedded Service Switch (ESS) 3300 and the LMSW-R63 ruggedized router based on Cisco Next Gen GE Embedded Router 6300 have been optimized for military networks that require IP switching and routing services. The compact design provides highly secure data, voice, and video communications to stationary and operational-tactical network nodes.

1/10G fiber optic ports are terminated with HMA “Expanded Beam” connectors, which allows interconnecting the tactical network nodes utilizing cables with optical fibers. The “Expanded Beam” technology used preserves all the benefits of signal transmission through the optical lines under field harsh environmental conditions.

The unified design of both devices enables to use various interfaces:

- MRJ connector type, simple connection with standard RJ-45 plug
- D38999 Series III multipin connectors have high-density contact arrangements in a miniature circular shell. These connectors are perfect for applications requiring extremely reliable interconnections.

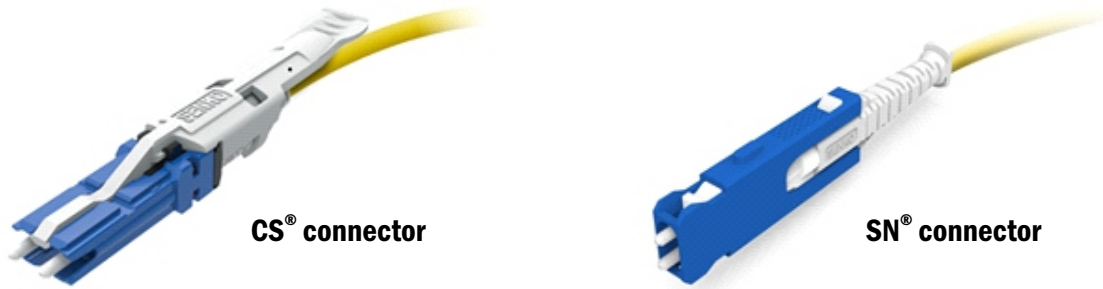


The D38999 multipin connector combines further interfaces in the same physical port. The various LMCAB copper wires cables are designed to split different interfaces into separate cable plug/sockets according to requirements.

# Company News

## SN connector application

The April issue of the OPTOKON Newsletter featured the new SFF connector types – the CS and the SN.



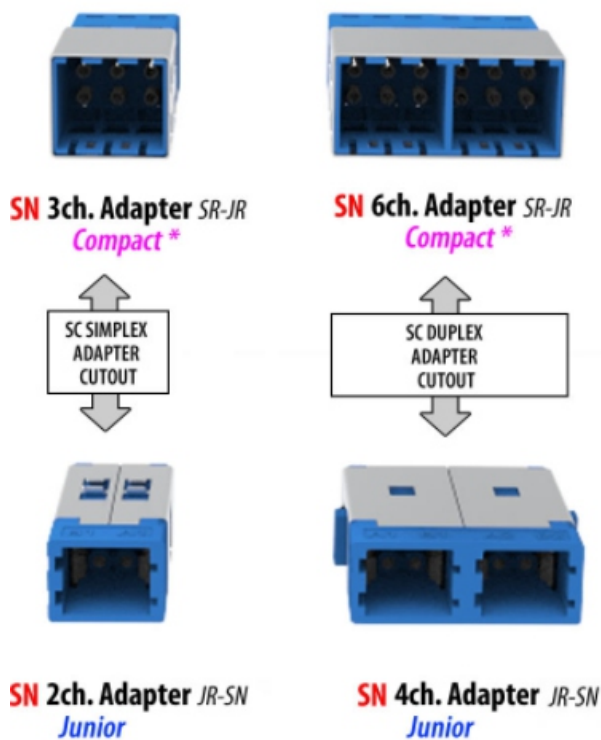
Both types are duplex and equipped with 1.25 mm diameter ferrules. The miniature design allows higher installation density in ODF optical cabinets and multiple parallel transmission in optical transceivers to increase transmission speed.

The SN optical connector is especially suitable for use in optical transceivers and comes in two basic versions:

- Connector for patchcords - connecting cables, usually 2.0 mm in diameter.
- Connector for pigtailed fibers, fibers 0.9 mm, for splicing fibers from optical cables in ODF optical cabinets.

A number of adapters with a capacity of 2-12 optical fibers can be used for the interconnection between patchcords and pigtailed fibers in optical distribution frames.

The SN connector for 0.9 mm fiber is available in two basic variants, SN Junior and SN Compact. The mutual compatibility of these variants and different types of adapters is shown in the diagram:



# New Products

## MES33xx Ethernet Aggregation Switches

The MES33xx series of switches can be used in service provider networks as aggregation or transport switches. They ensure high performance due to the interfaces operating at speeds of 10 Gbps or 1 Gbps.

The MES aggregation switches' feature set includes advanced L2 functions, static routing, dynamic routing, 4 SFP+ 10 Gbps interfaces, stacking of up to 8 devices, redundant and hot-swappable power supplies.

All MES33xx switches comply with CE requirements.

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



## MES2324P and MES2348P PoE/PoE+ switches

The MES23xxP PoE/PoE+ switches are designed to connect end-users to a largescale corporate network, small and medium business networks and service provider networks using 1G/10G Ethernet interfaces.

The switches support physical stacking, VLANs, multicast groups and advanced security functions.

The MES23xxP switches comply with CE requirements.

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



MES2324P-AC



MES2348P-AC

## CLAQ – CzechLight Amplifier devices

The CLAQ is a family of low noise, high performance and improved reliability EDFA (Erbium Doped Fiber Amplifier), designed to support turnkey amplification solutions for fiber networks. The CLAQ EDFA family includes Pre-Amplifier, In-line and Booster EDFA. The 1U frame can accept up to four EDFA modules. Different control modes control on each stage are available: AGC - automatic gain control and APC - automatic power control.

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



## CLAQ – CzechLight Amplifier devices BiDi EDFA

The CLAQ BiDi EDFA is designed to be used for special Bidirectional transfers over Single Fiber.

Different control modes control on each stage are available: AGC - automatic gain control and ACC - automatic power control. Dual power supply modules can ensure uninterrupted functionality during operation.

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



# New Products

## LMIPT-41 High-class Rugged IP Phone

The OPTOKON LMIPT-41 is a rugged IP phone specifically designed for use in harsh environmental conditions. The IP phone delivers the latest technology and advancements in IP telephony based on the Cisco 8841 platform and provides communication over the same data network as your computer, allowing you to place and receive phone calls, put calls on hold, transfer calls, make conference calls, etc. The OPTOKON LMIPT-41 is built into a fully sealed and vibration proof aluminum chassis.

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



## LMSW-E33 Ruggedized 1/10 Gigabit

- Ethernet Layer 2/3 Managed PoE Switch
- 2x 1/10G WAN, FO HMA and RJ-45
- 8 or 24x LAN 10/100/1000Base-T, PoE

The OPTOKON® LMSW-E33 ruggedized switch based on Cisco® Embedded Service Switch (ESS) 3300 extends switching capabilities to mobile and embedded networks that operate in extreme environments.

The flexible, compact form factor of the switch, powered by Cisco IOS® Software, provides highly secure data, voice, and video communications to stationary and mobile network nodes, making it ideal for use in harsh environmental conditions. 10G fiber optic ports are terminated with HMA “Expanded Beam” connectors, which allows interconnection of the nodes of the tactical network by utilizing cables with optical fibers. The “Expanded Beam” technology preserves all advantages of signals transmission through the optical lines in field harsh environmental conditions.

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



## LMSR-R63 Ruggedized next Gen Gigabit Router

2x GE WAN + 4x GE LAN ports, PoE

The OPTOKON LMSR-R63 ruggedized router based on Cisco Next Gen GE Embedded Router 6300 is optimized for military networks that require IP routing and services. The compact router provides highly secure data, voice, and video communications to stationary and operational-tactical network nodes.

The LMSR-R63 is a high-performance, ruggedized router designed for use in harsh environments and provides reliable operation in extreme temperatures and under shock and vibration conditions typical for mobile applications in rugged terrain. The router supports a variety of management functions, including Cisco DNA, Web UI, IOx, MIB – SNMP (version 2 and 3), syslog etc. It can fit all standard 24 V DC power systems. The router operates in a wide temperature range of -40 to +70 °C and can operate as a stand-alone device or can be installed in a 19” rack.

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



# New Products

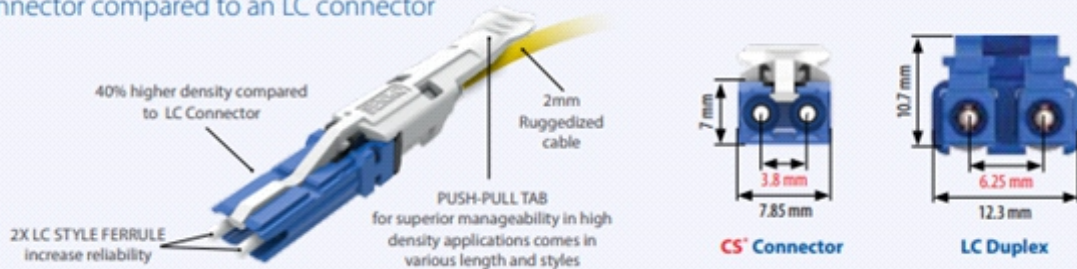
## CS Patchcord

The CS<sup>®</sup> connector was introduced as a replacement for current duplex LC connectors which are too big for newer generatic transceiver interfaces and to increase the connector density in patc panels. The CS<sup>®</sup> connector is operated with a push-pull mechanism having two cylindrical, spring-loaded 1.25 mm ferrules, within 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 TOS and ROSA optics requirement. The CS<sup>®</sup> connector can be used with 2 mm jacketed cable.



CS<sup>®</sup> Connector Designed for next-generation 200/400G transceiver OSFP-DD and OSFP

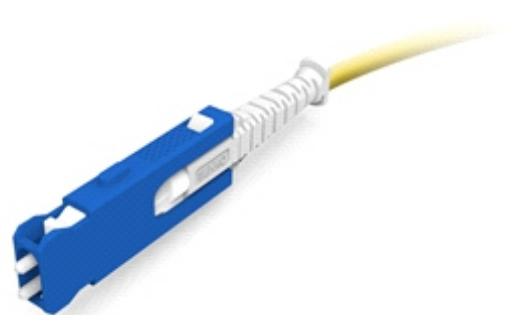
### CS<sup>®</sup> Connector compared to an LC connector



[The 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. The SN<sup>®</sup> connector was 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 than the MPO connector. 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.



The SN<sup>®</sup> connector supports up to 2.0 mm jacketed cable

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

