



# NEWSLETTER

September 2025

# OPTOKON Newsletter

## September 2025

Welcome to the latest edition of our newsletter! In this issue, we share highlights from recent exhibitions and activities. OPTOKON presented its ruggedized communication and fiber optic solutions at **IDEF 2025 in Turkey** and **PARTNER 2025 in Serbia**, where we welcomed the **Czech Ambassador** and were **interviewed by Turkish television network**.

Meanwhile, **OPTOKON North America** continues to

expand its footprint, building on partnerships and advancing projects that strengthen our role in the U.S. defense and industrial markets.

We also moved forward with innovative projects, including the first prototypes of our next-generation **LMCP platforms** and the continued development of testing and integration capabilities to support modern defense applications.



## OPTOKON Recognized in Key Industry Reports

We're pleased to share that OPTOKON has been featured in several recent global market reports. These include the **Fiber Optic Patch Management Rack Market Analysis**, the **2025 High Density Optical Distribution Frame Report**, and the **Global Air Blown Cable Report 2025**.

Being listed among key industry players reflects our ongoing focus on quality, innovation, and reliability. As the market for advanced fiber optic solutions continues to grow, OPTOKON remains committed to supporting the needs of telecom providers, data centers, and industrial networks worldwide.

## In this issue

Attended and Forthcoming Exhibitions .....	3	OptoNet Hosts Turkish Students .....	10
CNC Facility to Power OPTOKON's Growth .....	5	OPTOKON NA at Broadband Summit .....	13
OPTOKON and XENOptics .....	8	SpaceX Cooperation .....	17

# OPTOKON at IDEF 2025 in Istanbul

Last month, OPTOKON took part in the prestigious **IDEF 2025** exhibition in Istanbul, where the global defense community gathered to share ideas, technologies, and visions for the future. For us, the event was more than just a showcase—it was an opportunity to highlight our ruggedized fiber optic and tactical communication solutions, engage with industry leaders and military representatives, and connect with the next generation of engineers and innovators.

One of the highlights at our booth was the live demonstration of the automatic optical switch, developed in partnership with **XENOptics Limited**, presented as part of the broader **FiberTron Hive system**. Visitors also had the chance to see a drone from **ADT Aviation and Defence Technologies Inc.**, specially equipped with **OPTOKON fiber reels** to ensure stable performance even in challenging environments. These showcases emphasized both the strength of our international partnerships and the innovative edge we bring to mission-critical applications.



**IDEF 2025** was not only about showcasing technology but also about building connections. From strategic talks with defense leaders to inspiring exchanges with students, the exhibition opened doors to future cooperation. Thank you to our partners and visitors for making it a success – the event once again confirmed OPTOKON's role as a trusted provider in modern defense technologies.



## Notable Exhibitions Attended



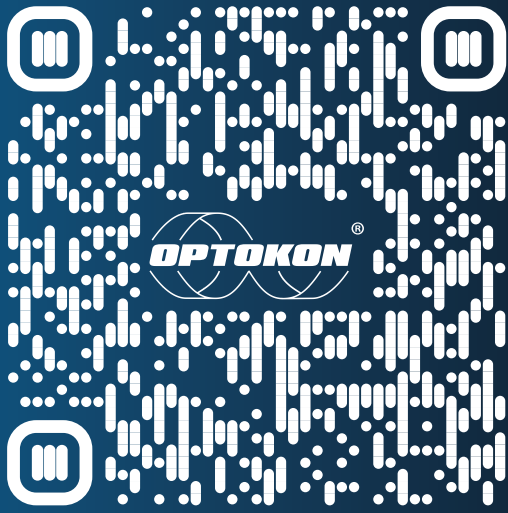
**SOBRA 2025,**  
Gornja Radgona, Slovenia



**PARTNER 2025,**  
Belgrade, Serbia



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## OPTOKON Group at the 800th Anniversary of Pelhřimov

This year, the city of Pelhřimov celebrated a remarkable milestone – **800 years since its first written mention**. From September 12th to 14th, 2025, the city came alive with music, parades, history, and entertainment for all generations. The main square and city parks turned into vibrant venues, hosting everything from concerts of Czech bands and well-known personalities to the historical “Path Through Time.”

And since Pelhřimov has been part of our story for many years, we couldn't miss this special occasion. OPTOKON Kable Co., Ltd., s.r.o., our manufacturing company focused on optical and hybrid cables, has been **operating in Pelhřimov since 2016**, when a new production hall was opened here. Over the years, the city has become not only our workplace, but also a place we are truly proud of.

We are delighted to have been part of the celebrations and to share in the rich history of the city. At the same time, we feel that our work and the people behind OPTOKON Group are now firmly integrated into the Pelhřimov community.

Whether it was the festive parades, concerts of Czech celebrities, or the Sunday program in the city park the three days were a wonderful celebration of Pelhřimov's past and future. We are proud to have our place in this city and to be part of its story.



# GOLDENJEST Invests in the Future: CNC Facility to Power OPTOKON's Growth

A major step in OPTOKON's modernization journey is the integration of **advanced CNC technologies** for the precision machining of key components used across its core product lines. This effort is being strongly supported by OPTOKON's parent holding company, **GOLDENJEST International, a.s.**, through its Turkish subsidiary **Varer Savunma ve Havacılık**, a respected company with more than 63 years of tradition in the defense industry. Varer, certified under ISO standards and holding a NATO CAGE Code, operates a CNC production facility **equipped with 21 state-of-the-art machines**, including horizontal and vertical models as well as 3-axis, 4-axis, and 5-axis machining centers. The facility also includes coordinate measuring machines (CMMs) and other specialized equipment to ensure exceptional precision and strict quality control.

With these capabilities, GOLDENJEST guarantees a stable and reliable **supply of precision metal components, both large and small**, for OPTOKON and its partners in the defense and commercial sectors. OPTOKON will now benefit from significantly faster and more secure deliveries of key metallic components for their IT solutions, strengthening its ability to respond flexibly to customer needs and ensuring continuity in its global projects. While OPTOKON and Varer continue to operate independently and focus on their own areas of expertise and development, together within the GOLDENJEST holding they create powerful synergies that enhance the group's position as a trusted and technologically advanced partner in defense, telecommunications, and industrial markets worldwide.



# OPTOKON Expands in Australia and New Zealand with Rapid-Tech Partnership

OPTOKON is pleased to announce a new partnership with Rapid-Tech Equipment, appointing them as the exclusive distributor of OPTOKON test and measurement products in Australia and New Zealand.

This collaboration represents an important step in strengthening **OPTOKON's presence in the Indo-Pacific region**. Through **Rapid-Tech**, local industries will now benefit from faster delivery, local stock availability, and direct technical support, ensuring easier access to OPTOKON's trusted fibre optic and data transmission solutions.

"OPTOKON offers an alternative that combines more than three decades of European manufactu-

ring with the convenience of local distribution," said **Marek Tucek, Director of OPTOKON Australia**. "Our partnership with Rapid-Tech enables us to better serve telecommunications, defence, and critical infrastructure projects while ensuring compliance with global standards."

With **over 30 years of experience in the Australian market**, Rapid-Tech is well positioned to support this expansion. "OPTOKON's commitment to quality, innovation, and performance aligns perfectly with what our customers expect," added **Mark Isherwood, T&M Marketing Manager at Rapid-Tech**. "This partnership allows us to deliver reliable solutions with the speed and support our clients need."



Rapid-Tech is an Exclusive Channel Partner  
for OPTOKON Testing & Measurement  
equipment in Australia and New Zealand.





Rugged. Reliable.  
Built for the Harshest  
Mining Environments.



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**STAND E119**  
[Czech Republic stand]

# WA MINING

CONFERENCE AND EXHIBITION

8th-9th October 2025, Perth Convention & Exhibition Centre

## OPTOKON Australia at Upcoming Exhibitions in 2025

OPTOKON Australia is excited to announce its participation in two major industry events later this year. On **8–9 October 2025**, we will be present at the **WA Mining Conference & Exhibition in Perth**, where we will showcase our ruggedized fibre optic and communication technologies designed to meet the demanding needs of the mining and resources sector.

Following this, from **4–6 November 2025**, we will join the **IndoPacific International Maritime Exposition in Sydney**, one of the leading maritime defence events in the region. Here, OPTOKON will present its latest solutions for secure communication and fibre optic infrastructure, supporting defence, naval, and critical maritime applications.

# OPTOKON and XENOptics: Shaping the Future of Fiber Optic Drone Control

Fiber optics are no longer limited to carrying data between servers and secure communication hubs. A new partnership between **OPTOKON and XENOptics** is pushing the technology into active deployment on the battlefield and in critical civilian applications, changing the way drones can be controlled and coordinated.

## From Secure Communication to Active Defense

Drones have quickly become one of the defining tools in modern warfare, a trend highlighted by the Ukraine–Russia conflict. They are now deployed for surveillance, reconnaissance, attack, and defense on a scale never seen before. But drones face a major vulnerability: their reliance on radio signals. These signals are easy to detect, jam, or intercept, making them unreliable in contested environments.

OPTOKON has been developing an alternative. Instead of using radio frequencies, its engineers have been working on fiber optic drone control systems. Far from being just a futuristic concept, these systems have already been tested and proven under real-world operational conditions. The result is a new class of **drone technology that is immune to radio interference**, invisible to detection systems, and capable of secure, high-bandwidth communication.

## The Fiber Drum: Practical, Robust, and Proven

At the heart of this breakthrough is the **Fiber Drum**. This lightweight spool allows drones to be manually controlled over distances of **up to 20 kilometers** using a fiber optic tether. When connected with OPTOKON's optical-electrical transceivers, it establishes a secure, high-performance channel between the operator and the drone.

Unlike traditional remote control systems, **the Fiber Drum leaves no electromagnetic trace**, making the drone effectively undetectable by conventional signal monitoring or radar systems. This technology was **introduced publicly at SAHA EXPO 2024**, where it drew strong interest from both defense and industrial representatives.

The potential goes beyond the battlefield. Civilian applications include energy infrastructure monitoring, crisis management, and emergency response—anywhere reliability, security, and immunity to interference are critical. With its modular design, the Fiber Drum can be quickly deployed, adapted to different platforms, and scaled for diverse missions.

## Expanding the Vision: The FiberTron Hive

Building on this foundation, OPTOKON's partnership with XENOptics introduces a new level of sophistication. By incorporating **XENOptics' XSOS Smart Optical Switch**, the two companies are developing the **FiberTron Hive**, a concept designed to coordinate swarms of up to 200 fiber-connected drones.

The Hive envisions a centralized, autonomous control base capable of combining fiber optic links with satellite connectivity and advanced mission management tools. In practice, this could allow dozens or even hundreds of drones to be deployed simultaneously in areas where radio-based systems would fail.

Although still in the concept phase, **the FiberTron Hive represents a forward-looking roadmap** for drone operations. It points to a future where drones can operate in high-interference battlefields, disaster zones, or crisis areas without the risks associated with traditional communication methods.



**OPTOKON**

**FIBERTRON HIVE-200**  
MOBILE BASE FOR DRONES

The FiberTron Hive-200 is a rugged, fully autonomous mobile base designed to deploy and manage up to 200 drones. Each drone is individually tethered via optical fiber for secure data transmission. The system connects to control centers using satellite, fiber, or radio links—ensuring flexible, interference resistant operation in any environment.

- Automatic fiber unwind and rewind
- Operates up to 200 tethered drones
- Immune to jamming and cyber threats
- Autonomous launch, docking, and drone switching

## Strategic Significance of the Partnership

“XENOptics is very proud to be partnered with OPTOKON to support their vision of modern drone deployments,” said **Solomon Sokolovsky, COO and Co-Founder of XENOptics**. “With our Smart Optical Switches already deployed in defense departments, this is a natural and innovative evolution of our solution that takes automated remote fiber switching to the battlefield.”

This partnership brings together OPTOKON’s three decades of expertise in fiber optic systems with XENOptics’ specialization in smart switching technology. The result is not only working products available today, like the Fiber Drum and optical transceivers, but also an ambitious development framework that could reshape how unmanned systems are deployed in the years ahead.

## New Addition to OPTOKON FTTH Solutions: Shuttered SC Patchcords

OPTOKON has expanded its **FTTH product offering** with patchcords equipped with SC connectors featuring an integral shutter mechanism. Designed for home network applications, these connectors combine user safety with reliable performance.

The shutter protects against contamination and accidental damage during handling, while also providing eye safety by automatically blocking laser radiation when disconnected. This makes them particularly suitable for environments where end users may have limited technical training.



With compliance to **IEC 61754-4 standards**, high mechanical resistance, and excellent transmission parameters, OPTOKON shuttered SC patchcords ensure secure and dependable connectivity for modern FTTH installations.



# OptoNet Hosts Turkish Students through Erasmus+ Program

OptoNet recently had the pleasure of welcoming a group of students from the **Turkish Anatolian Technical High School** as part of the **Erasmus+** program. The visit was designed to provide both a theoretical and hands-on introduction to the portfolio of the OPTOKON Group – including OPTOKON, OptoNet/DCV, and OPTOKON Kable.

Throughout their stay, students were introduced to the basics of fiber optics, as well as the production processes behind OPTOKON's innovative solutions. They also explored the business side of data centers with an engaging tour of the **VYSOČINA DATA CENTER**, where they experienced firsthand how optical and metallic networks are managed and maintained.



Workshops gave students the chance to get directly involved – from terminating optical fibers and producing patchcords to practicing cable management, splicing, and testing. They also learned how to measure optical fiber parameters, gaining valuable technical knowledge supported by demonstrations from OPTOKON's testing and production divisions.

The program combined professional training with cultural discovery, concluding with a tour of the historic town of Jihlava and the unique **Jihlava Underground**. The experience offered students a well-rounded insight into both the industry and the region, leaving them with new skills, perspectives, and memories to take home.



# OptoNet Leads International Project Enhance to Transform Vocational Education

As part of OPTOKON Group, our subsidiary OptoNet Communication, spol. s r.o. proudly takes the lead in coordinating a groundbreaking international initiative – the **ENHANCE Project**, funded by the **Erasmus+ Programme**. This project is a strategic response to one of Europe's most pressing challenges: the urgent need to bridge the digital skills gap and prepare learners, educators, and institutions for the demands of the digital age.



## What the ENHANCE Project is About

**ENHANCE** is designed to modernize vocational education and training (VET) by introducing **AI-driven learning solutions**, digital platforms, and inclusive tools that meet the needs of both today's and tomorrow's workforce. The project recognizes that technological change – accelerated by the COVID-19 pandemic – has reshaped industries and created new demands for digital literacy, AI knowledge, and adaptability. Many vocational systems are struggling to keep pace, and ENHANCE aims to provide practical, scalable solutions.

## Key Focus Areas of the Project

- **AI-powered Mobile Learning App** – An innovative application that allows students to access interactive lessons, quizzes, and personalized content anywhere, anytime. The app adapts to each learner's progress, ensuring a tailored and engaging educational experience.
- **Open-Source Curriculum Platform** – A collaborative space for teachers and institutions to co-create and refine curricula. Integrated AI analytics will evaluate performance, suggest improvements, and align training content with labor market needs.
- **Learner Engagement through AI** – The project will leverage artificial intelligence to create immersive, motivating, and personalized experiences that reduce dropout rates, especially among disadvantaged learners.
- **Accessibility and Inclusion** – Special attention is given to marginalized groups, including learners in remote areas or those with disabilities, by integrating features such as voice recognition and adaptive learning pathways.
- **Future-Oriented Digital Skills** – Training will cover essential areas like cybersecurity, artificial intelligence, fiber optics, and IP telephony, equipping learners with practical skills directly aligned with industry demands.

## Who Benefits from ENHANCE

- **VET providers and teachers** – empowered with innovative digital tools and teaching methods.
- **Students and young professionals** – gaining access to personalized, flexible, and career-relevant training.
- **Employers and industries** – receiving a better-prepared workforce with cutting-edge digital skills.
- **Disadvantaged groups** – including youth excluded from formal education, who will be offered inclusive pathways into employment and social integration.

## International Partnership

ENHANCE brings together three organizations with complementary expertise:

- **OptoNet (Czech Republic)** – technology development, innovation, and project coordination.
- **EUpro Consultancy & Training (Netherlands)** – educational methodologies, digital curriculum design, and teacher training.
- **SEHA Academy (Turkey)** – vocational training for disadvantaged youth and focus on inclusivity.

Together, these partners combine technology, education, and social responsibility to create a strong European initiative with lasting impact.

## OPTOKON Group's Commitment

For OPTOKON Group, participation in ENHANCE is more than just a project – it is a statement of our commitment to innovation, digital transformation, and societal progress. By supporting AI integration into education and training, we are investing in the future of skills, ensuring that new generations of specialists will be ready to succeed in the rapidly evolving digital economy.

The ENHANCE project officially launches in January 2025 and will run for 15 months. Its outcomes will not only transform vocational education but also strengthen Europe's competitiveness and resilience in the digital era.

# OPTOKON Testing Division: Ensuring Reliability Through Certified Testing

The OPTOKON Testing Division provides a wide range of accredited testing services to ensure that products meet the highest international standards for reliability and performance. Equipped with advanced facilities and certified to CSN EN ISO/IEC 17025, the division offers comprehensive testing for defense, industrial, and telecommunications applications.

Our **state-of-the-art EMC chamber** meets all MIL-STD 461G requirements and supports certified EMC measurements, including CISPR 25, CE 102, CS 101, CS 114, CS 115, CS 116, RE 102, and RS 103. Based on the ETS-Lindgren system, the chamber delivers a precision-grade free-field environment, enabling accurate susceptibility testing and superior shielding effectiveness beyond EN 50147-1.

In addition, OPTOKON conducts extensive **mechanical and environmental testing**, including tensile, abrasion, impact, torsion, flexing, bending, crash, and climatic tests according to IEC 60794-1-21/22 standards. Our temperature and pressure chambers further allow for rigorous evaluations under extreme environmental conditions, ensuring that cables, connectors, and ruggedized equipment perform reliably in the harshest environments.

With dedicated expertise, modern equipment, and a strong focus on quality assurance, the OPTOKON Testing Division provides trusted services for validating and certifying products, helping customers reduce risk, ensure compliance, and deliver dependable solutions worldwide.



# OPTOKON North America attends the Florida Broadband Summit

Closing the digital divide connects small and rural communities to greater access to education, employment, healthcare, economic growth and personal prosperity. Florida is continuing to expand broadband access by building on the success of last year's Broadband Summit and infrastructure investments made by Governor Ron DeSantis.

The Summit brought together more than 300 leaders in state and local government, workforce, economic development, education, the broadband industry and more. Together, we will advance broadband infrastructure and workforce strategies to sustain Florida's globally competitive economy.



The most recent North American Fiber Deployment Report by RVA LLC Market Research & Consulting (RVA) released in January 2025 presented installation records for the progress of fiber across America. A new annual record of 10.3 million U.S. homes were installed in 2024. The US now has more than 100 million homes connected to fiber in the U.S., with continued growth expected over the next five years. Florida, the home of OPTOKON NA is connecting over 100,000 homes to fiber annually.

## OPTOKON NA establishes US Federal Government Reseller Channel

"OPTOKON NA announces its newly created US-based Value-Added Reseller (VAR) program. The United States continues to expand its use of fiber optics for private and public uses, OPTOKON NA's new manufacturing and service facility will focus on supporting key partners in the defense, security, and commercial sectors throughout the U.S. and the wider region. In support of this growth, it is imperative that OPTOKON NA secure the commitment of a select group of Value-Added Resellers who have experience and focus in delivering mission critical technology, communications, and security solutions."

*stated Paul J Karch, Managing Director, OPTOKON NA*

To date OPTOKON NA has vetted and signed 3 Value Added Resellers and secured a number of key partnerships.

## OPTOKON NA Internship Program with Lake Sumter State College

OPTOKON NA has partnered with Lake Sumter State College to offer a new internship program for students in communications and technology, strengthening cooperation with the local community while supporting talent and practical learning.





## OPTOKON North America Strengthens Market Reach with New VAR Partnership

OPTOKON North America has expanded its U.S. footprint with the addition of **Tailwind Resource Group (TRG)** to its newly launched Value-Added Reseller (VAR) program. This marks an important step in supporting government and commercial customers with ruggedized fiber optic and networking solutions designed for mission-critical environments.

Headquartered in Eustis, Florida, OPTOKON North America was established to provide local manufacturing, assembly, sales, and support for the OPTOKON product portfolio. As the fourth manufacturing hub within the OPTOKON Group – alongside facilities in the Czech Republic, Malaysia, and Turkey, the U.S. operation reflects the company's commitment to delivering faster lead times and direct support to key partners across defense, security, and commercial sectors.

The addition of Tailwind Resource Group reinforces this strategy. TRG is an SBA-certified 100% Woman-Owned Small Business (WOSB) with a strong track record of delivering advanced IT and cybersecurity solutions to the U.S. government and enterprise customers. With decades of experience, TRG has

built lasting relationships across the federal and integrator community, emphasizing trust, reliability, and mission success.

“TRG exemplifies our value-added reseller strategy and aligns with U.S. government procurement goals,” said **Paul J. Karch, Managing Director of OPTOKON North America**. “Their focus on customer success and long-standing reputation made this an easy choice.”

For Tailwind, the partnership extends its already robust portfolio of OEM partners – including names such as Palo Alto Networks, HPE, Microsoft, and SentinelOne – with OPTOKON's leading-edge fiber optic test equipment and rugged communications solutions. “OPTOKON's technology will help us continue delivering best-in-class results to our customers,” said **Bethany Daniel, President and CEO of TRG**.

With TRG on board, OPTOKON North America is well-positioned to grow its presence in the U.S. market, supporting the increasing demand for secure, reliable, and field-proven optical networking solutions.

# OPTOKON North America at the 2025 LEAD Annual Meeting

OPTOKON North America recently participated in the 2025 LEAD Annual Meeting hosted by Lake County, Florida, at the end of September. Paul J. Karch, Director of OPTOKON North America, delivered a presentation at the event, highlighting the company's ongoing commitment to supporting the local community and strengthening ties with regional leadership and stakeholders.



## OPTOKON at PARTNER 2025 in Belgrade

OPTOKON successfully concluded its participation at the PARTNER 2025 defence exhibition in Belgrade, Serbia. Our booth attracted strong interest, including a visit from the Czech Ambassador, and we were also interviewed by Turkish television, highlighting our growing international presence and partnerships.



# First Prototypes of LMCP-28H-NGe2 and NGe3 Ready


OPTOKON is pleased to announce the completion of the first prototypes of the LMCP-28H-NGe2 and LMCP-28H-NGe3 ruggedized mobile computing platforms. These next-generation systems combine server, router, switch, and VoIP call manager functions into a single, compact unit designed to support C4ISR, tactical communications, and public safety applications.

Building on the success of previous LMCP generations, the new models introduce enhanced cybersecurity features, a silent fanless design, and full interoperability with leading radio platforms such as L3 Harris, Motorola/Barrett, Thales, MESIT, and others. They are fully compatible with VMware, Linux, and multiple operating systems, ensuring maximum flexibility across mission environments.



The LMCP-28H-NGe series is designed to handle demanding workloads, with scalability up to 256 GB of RAM. The LMCP-28H-NGe3 further extends capability by supporting the Nvidia RTX GPU, making it ideal for advanced data processing and visualization in the field.

Ruggedized according to MIL-STD standards and built for extended operating conditions, the NGe2 and NGe3 mark a significant step forward in delivering secure, versatile, and mission-ready connectivity solutions for modern defense and security operations.



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Precision Optical Termination Service

**OPTOKON**<sup>®</sup>

We provide fiber optic termini installation, replacing electrical contacts in D38999 connectors.

- Precision-mounted fiber optic ferrules
- Ready for high-speed data transmission
- Designed for durability in harsh environments

For more details, contact us at  
**SALES@OPTOKON.COM**



# OPTOKON Group and SpaceX: Together Towards Orbit

Within its subsidiary OptoNet Communication and with a Czech technology partner, OPTOKON Group has established an important connection with the American company SpaceX, the world leader in space technologies and satellite communications.

This project is the result of long-term negotiations and represents another step for our Group towards the development of international activities. Together, we are contributing to the preparation of infrastructure designed to ensure integration with modern satellite technologies.

The cooperation is currently in full progress, and we expect it to continue in the next stages as well. We believe this partnership marks the beginning of broader involvement of Czech companies in global projects, and we look forward to further opportunities to expand cooperation with partners from around the world.



**OptoNet**  
Communication  
DATOVÉ CENTRUM VYSOČINA

TIER III

DATA CENTER  
DCS  
CABLE SYSTEM

OSMS

High-performance space for rent

Intelligence-driven security

Strategic location

**DATOVÉ  
CENTRUM  
VYSOČINA**

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DATOVÉ CENTRUM VYSOČINA

**SCAN ME**

# OPTOKON TestBench Facility: Advanced Integration Capabilities

To further enhance information security and meet the highest quality standards, OPTOKON operates its advanced TestBench facility within the OPTONET Data Center in the Vysočina region. The facility is designed to meet the demanding requirements of defense and security applications, ensuring secure testing and reliable validation of systems using state-of-the-art infrastructure and processes.

The TestBench is equipped with reliable power supplies, specialized workstations, and advanced tools that allow for configuring, testing, and maintaining complex systems. Integration with the OPTONET Data Center guarantees encrypted data storage, with access, test results, and documentation securely managed through the OPTOKON Web Portal. Each test includes detailed plans based on customer requirements, with comprehensive reports, video documentation, and troubleshooting diagrams available for review.

Close cooperation with suppliers and integrators ensures efficient monitoring and support during all testing phases. The facility also provides ongoing maintenance, equipment upgrades, and integration testing with direct customer participation, while all progress and communication remain traceable through secure channels. Strict adherence to configuration management procedures ensures accuracy, transparency, and compliance at every step.



Beyond product validation, the TestBench also supports complete integration of OPTOKON ruggedized technologies into infantry vehicles. While OPTOKON does not develop Battle Management Systems directly, cooperation with trusted partners enables seamless pairing of our hardware with proven software platforms, delivering reliable, mission-ready, and fully integrated solutions for modern defense operations.

By combining advanced infrastructure, strong partnerships, and a focus on quality assurance, the OPTOKON TestBench Facility provides a trusted environment for testing, integration, and innovation across defense and security systems worldwide.

# AIRDA / XARDA

Seamless vehicle system integration

Optimized for airborne operations

Clear visibility in any lighting

Built for extreme terrain



Backlit Controls

Ruggedized Design

High-Res Display

Precision Dials

## LMRS Ruggedized Radiation Detection Sensors

OPTOKON's radiation detection sensors are engineered for precise and reliable monitoring of gamma radiation across a wide dynamic range. With a fast response time of less than one second and sensitivity of 200 cps/ $\mu$ Sv/h, they provide accurate readings and isotope identification from 100 keV to 3.5 MeV. Built with IP67 protection, the devices are designed to withstand dust, water, and harsh operating environments while maintaining consistent performance.

To meet diverse operational needs, OPTOKON now offers multiple variations of these detectors specifically adapted for integration into aircraft, vehicles, and drones. This flexibility allows for seamless deployment in field operations, ensuring real-time monitoring where mobility and reliability are critical. With CAN interface connectivity, the sensors integrate easily into existing monitoring and safety systems, making them a versatile solution for industrial, security, and scientific applications.



# LMSP-10.B Ruggedized All-In-One Unit

OPTOKON's LMSP-10.B and LMSP-12 units are compact, all-in-one rugged computing platforms designed for air and ground vehicle deployment. With 10-inch and 12.1-inch high-resolution displays respectively, both models combine a powerful embedded system with intuitive physical controls—featuring 28 backlit buttons and dual rotary encoders for ease of use in low visibility and high-vibration environments.

Supporting Linux or Windows OS and offering Ethernet connectivity, these systems are ideal for seamless integration into mission-critical control networks where durability, reliability, and interface flexibility are paramount. Engineered for extreme conditions, the LMSP series delivers dependable performance where it matters most.



## Discover OPTOKON's HMA Connectors

OPTOKON's HMA connectors are built for reliable optical performance in the harshest environments. Designed for military, industrial, and broadcasting applications, they feature **expanded beam technology** for resistance to water, mud, oil, and dust. The hermaphroditic design allows fast, **tool-free deployment without the need for adapters**.

Whether used in tactical networks, petrochemical installations, or temporary communication lines, HMA connectors deliver low-loss, **high-performance singlemode or multimode links**. Durable, field-repairable, and easy to deploy, they're the ideal choice for demanding conditions.



# LMSW-E33-242-B Ruggedized Gigabit Ethernet Layer 2/3 Managed PoE Switch

The OPTOKON® LMSW-E33 ruggedized switch based on Cisco® Embedded Service Switch (ESS) 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. 1G fiber optic ports are terminated with HMA "Expanded Beam" connectors, which allows interconnection of the nodes of tactical network by the help of cables with optical fibers. The used "Expanded Beam" technology preserves all advantages of signals transmission through the optical lines in field harsh environmental conditions. The switch supports a variety of management functions, including Web UI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session.



The switch is able to fit all the common 24 V DC power systems. The switch operates in wide operating temperature range -32 to +70°C. The switch can operate as standalone device or in addition the 19" brackets allow switch installation into 19" rack. Two switches can be connected on the side and mounted in a 19" rack.

## OFT-920 Ruggedized Optical Test Set

The OFT-920 ruggedized optical test set is designed for testing of optical networks terminated with connectors operating in harsh environment. It combines both light source and optical power meter in one common box. The test set is designed to meet the mining, petrochemical and broadcast industry demand. The ruggedized aluminium case makes the unit ideal for field operation.

The memory capacity allows storage and uploading of up to 2000 measurements including memory position or fiber number, wavelength, absolute value or relative value and insertion loss. The tester supports memory download and test report generating. The rechargeable battery ensures long term working with minimal operation costs.

- Ruggedized aluminium case
- Multimode (MM) and/or single mode (SM) applications
- Simultaneous testing of all 2/4 fibers
- Displayed units: dBm, dB
- High dynamic range
- Various light sources combinations
- Built-in charger, battery status indicator
- Easy to use with menu navigation



# TACTICAL FIBER DRUM: Control Over Fiber

A fiber optic drum for drone use enables secure, high-bandwidth connection between the drone and the commander control station, allowing real-time transmission of video and data with minimal latency and immunity to electromagnetic interference.

- Provides real-time data and video transmission between drone and ground control
- Immune to EMI, jamming, and interception— perfect for contested environments
- Tactical-grade optical fiber for UAV, drones and UGV
- Field-proven solution, tested under real-world conditions
- Lightweight, rugged drum design optimized for airborne and mobile platforms
- Enables high-speed communication with low latency and high reliability
- Optional integration with automatic retraction mechanism
- For 270  $\mu$ m fiber



## OMK-SR-OTS.2 Diagnostic Set

Diagnostic set includes measuring instruments and tools for diagnosing faults on fiber optic cables with HMA connectors. The OPTOKON Diagnostic Set includes two instruments - Light source and Power meter. Both instruments are housed in a hard carry case that meets the requirement of fiber optic networks installation and maintenance teams, who require rugged and lightweight fiber optic test equipment that combines high performance with ease of use and reliable operation.

The Diagnostic Set allows traceable measurements on dual wavelength and data storage to the PC. It includes the hybrid master HMA-FC patchcord for testing of military tactical networks and is comprised of these measurement instruments: LS-800N light source & PM-800N power meter.



### Material:

Case:	Copolymer Polypropylene Structural Resin
Latches:	ABS
O' Ring:	Neoprene sponge
Pins:	Stainless Steel
Purge Valve:	ABS with Gore-Tex membrane
Foam:	Polyester

