Optical Zonu Launches OZ200 Ultra High Dynamic Range RF-Over-Fiber Links

New transmitter and receiver modules deliver greater than 65 dB dynamic range and 30 MHz–6 GHz bandwidth to power high‑density networks

Optical Zonu Corporation

VAN NUYS, CA, UNITED STATES, June 16, 2025 /EINPresswire.com/ -- Optical Zonu Corporation, a leading provider of radio frequency over fiber (RFoF) transport solutions, announced today the release of the OZ200 product line of transmitter and receivers modules, capable of delivering ultra high dynamic range (UHDR) RFoF links greater than 65 decibels (dB) and up to 6GHz of bandwidth. Each module operates standalone or mounts into a four-slot line card for Optical Zonu's 19‑inch, 3 rack unit (RU) J3U chassis, enabling up to 64 transmitter or receiver combinations per rack for high‑density transport.

The OZ200 UHDR capabilities support a broad range of emerging mission-critical applications including high-capacity 5G small-cell backhaul in the C-band and CBRS spectrum, phased-array and radar RF distribution systems, and signal remoting for teleport and satcom ground stations. Its compact size, light weight, and low power consumption also make it ideal for unmanned aerial vehicles (UAVs) and drones. The product can be optimized via managed RFoF infrastructure for Frequency Division Duplex (FDD) or Time Division Duplex (TDD) applications, offering unparalleled Error Vector Magnitude (EVM).

"Low EVM is critical for reliable cellular coverage since it directly impacts signal quality and data integrity. While low EVM fiber links exist, maintaining consistently low EVM across a wide dynamic range has remained a challenge until now," said Farzad Ghadooshahy, CTO of Optical Zonu. "The OZ200 product line sets a new standard, delivering ultra-low EVM across a dynamic range of 65 dB or more. This enables low-latency transport, minimal errors, and clear, reliable communication for even the most demanding cellular applications."

Key OZ200 performance highlights include:

- Broadband coverage: 30 MHz–6 GHz (and down to 500KHz).
- Ultra-wide dynamic range: >65dB link budget and industry-leading SFDR for dense 256 Quadrature Amplitude Modulation (QAM) achieving EVM of less than 2% and can support even higher-order modulations.
- Precision gain tuning: Manual or automatic high resolution gain control (MGC/AGC)
- Intelligent monitoring: Integrated signal-strength detectors, RF RMS power measurement, and local LED alarms.
- Digital management: Microcontroller-based control via USB-C (USB, I^2C, UART) with SNMPv3 readiness
- Ruggedized design: –40-°C to +70-°C operating case temperature, low EMI shielding, and 6.5–7-VDC single-supply power

“The new OZ200 product line boosts signal integrity and system performance, supporting a broader RF power range for long-haul fiber transport,” said Meir Bartur, president and CEO of Optical Zonu. “Whether deployed as a lightweight standalone solution or within our J3U chassis, it integrates seamlessly with our leading Managed RFoF and the NMS offered via CloudView network management system, which delivers advanced remote monitoring features like fault detection, terrain-based fiber path visualization, and precise fault localization using micro-OTDR data.”

For more information on Optical Zonu Corporation and its OZ200 family of transmitters and receivers, visit www.opticalzonu.com.

About Optical Zonu Corporation
Optical Zonu Corporation (OZC) is a leading provider of radio frequency over fiber (RFoF) transport solutions for the wireless, defense, and aerospace industries. OZC is the only company fully committed to custom solutions for every deployment and offers easy centralized management and patented fiber fault detection. The company provides a wide range of turnkey, modular, and OEM solutions that support satellite antenna remoting, GPS distribution, ground station redundancy, and radar calibration. OZC maintains strategic global relationships across the industries it serves, cooperating with major vendors and suppliers to enable rapid production of cutting-edge solutions. For more information, visit http://www.opticalzonu.com/.

Ross Blume
Fusion PR
opticalzonu@fusionpr.com
