

# Introducing the R413ER

## Optical Coherent Receiver

Building on the success of the DSC - R413, the new DSC - R413ER (Extended Range) offers greater flexibility for coherent optical communications testing. This turnkey O/E instrument converts both dual- and single-polarization optical signals into differential RF outputs, supporting standard coherent digital modulation formats up to 64 Gbaud.

The R413ER operates across a broad optical wavelength range, including the O-, E-, S-, C-, and L-bands, enabling a wider range of testing applications. Available with or without an integrated single- or dual-polarization optical hybrid, it can be tailored to diverse testing requirements, including upcoming 1064 nm systems. Performance has also been enhanced, with typical bandwidth increasing from 20 GHz to 33 GHz, providing improved support for today's high-speed optical networks.

## Extended Range, Enhanced Performance



**Well Matched Linear Balanced PIN/TIA Photoreceivers with wavelength coverage from 1000 nm to 1650 nm**

**Automatic and Manual Gain Control for all channels**

**Independently adjustable differential gain for all channels**

**User interface for multiple environments: Embedded GUI Software, SCPI commands via USB, Remote access via Ethernet.**

**Flexibility of Multi-band usage with or without Optical Hybrid**

### Applications

- Optical Ground Stations: Communication Links at 1064 nm as well as 1550 nm
- Space Communication Links at 1064 nm as well as 1550 nm
- Hollow Core Fiber Research
- Coherent Lidar
- Microwave Photonics

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