

OE6250G-M Optical-to-Electrical Converter



Key Features

Optical-to-electrical converter for intensity-modulated signals to 28 Gbaud and higher

- Up to 36 GHz bandwidth in flat frequency response mode
- Up to 25 GHz bandwidth in 4th-order Bessel-Thomson frequency response mode

DC-coupled detector for accurate signal reproduction with a real-time oscilloscope

Fully calibrated and integrated

50/125 μm multi-mode fiber input

Ideal for Eye Mask, Extinction Ratio, and Optical Modulation Amplitude (OMA) testing

Compatible with Teledyne LeCroy WaveMaster 8 Zi, LabMaster 9 Zi-A, and LabMaster 10 Zi oscilloscope families

Teledyne LeCroy's OE6250G-M optical-to-electrical converter enables measurement of intensity-modulated optical signals up to 28 Gbaud and beyond on LabMaster or WaveMaster series real-time oscilloscopes. As a fully calibrated module, the OE6250G-M integrates seamlessly into the oscilloscope software to give optical intensity measurement straight out of the box. Teledyne LeCroy's extensive toolset includes powerful analysis tools for NRZ, PAM4, and other signal types, and enables custom signal processing and reference receiver implementation.

High-bandwidth Optical Performance

With up to 36 GHz of optical bandwidth, the OE6250G-M has the high performance necessary to acquire NRZ and PAM4 signals at 28 Gbaud and higher. As a fully calibrated optical-to-electrical converter, the OE6250G-M's response characteristics are combined with those of the oscilloscope, and compensated to an ideal response throughout the measurement system.

A Complete Measurement Toolset

The OE6250G-M enables high-speed optical signals to be analyzed using Teledyne LeCroy's industry-leading software and solutions toolset. Apply software clock-recovery using standard or custom PLL types, and analyze up to four NRZ signals simultaneously with eye diagrams, jitter and noise analysis, and extensive visualization options. Or leverage the PAM4 Signal Analysis package, with the most sophisticated eye, jitter and noise analysis available.

THE REAL-TIME ADVANTAGE FOR OPTICAL



1. Direct Optical Measurement

The OE6250G-M is automatically recognized by the oscilloscope on connection - waveforms are acquired, measured and displayed directly as optical power levels.

2. Wide Wavelength Range

The OE6250G-M supports optical signals from 830nm to 1600nm. Input wavelength selection is made directly via software.

3. Calibrated Performance

On-board calibration data is transferred automatically to the oscilloscope, ensuring a well-controlled frequency response. Bessel-Thomson and Flat responses are both available.

4. A full set of real-time tools

The OE6250G-M frees you from the limitations of equivalent-time instruments. Acquire single-shot waveforms in real-time. Examine one-off events, apply mathematical functions and software filters.

5. Measurement Simplicity

Make measurements such as Extinction Ratio directly on intensity-modulated optical signals.

6. Sophisticated Serial Analysis

Leverage Teledyne LeCroy's industry-leading serial data toolset, including eye, jitter and noise analysis of NRZ and PAM4 signal types, for your high-baud-rate optical signals. Apply clock recovery algorithms, including standard and custom PLL types, directly in software.

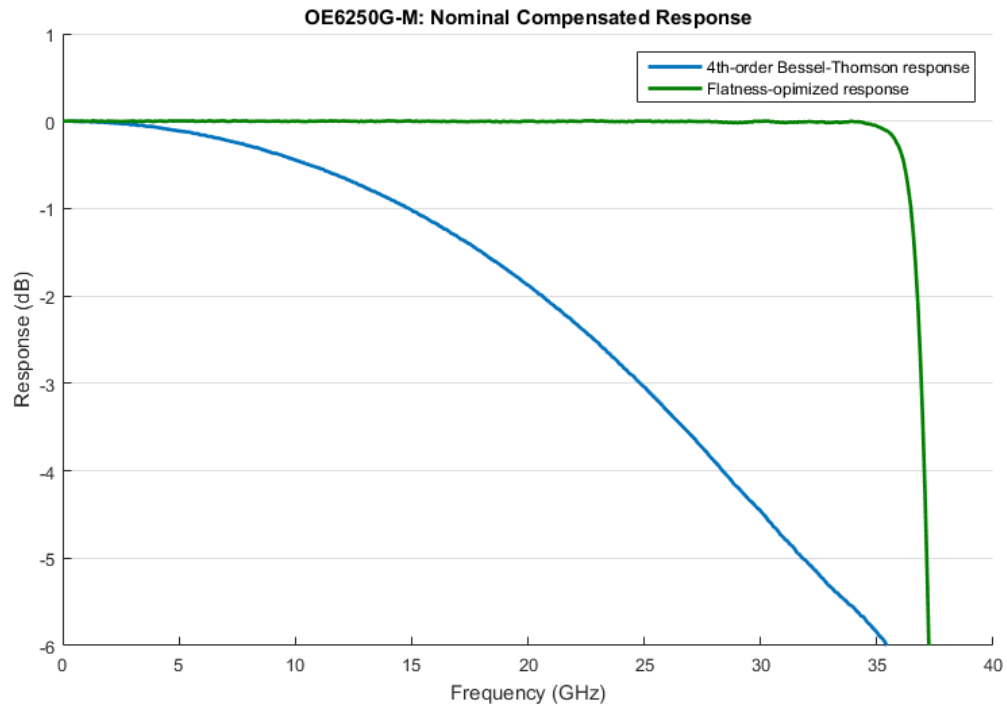
SPECIFICATIONS

OE6250G-M

Typical

Analog Bandwidth	25 GHz (Bessel-Thomson response mode), 36 GHz (Flatness response mode)
Wavelength Range	830nm - 1600nm
Calibration Wavelengths	850nm, 1310nm, 1550nm
Conversion gain at 850nm	-80 V/W
Conversion gain at 1310nm	-125 V/W
Conversion gain at 1550nm	-125 V/W
Electrical output coupling	DC coupled
5% compression point at 1550nm	4 mW (minimum)
Noise measured up to 50GHz	500 uV RMS
Optical Return Loss	19 dB
Polarization dependent loss at 1550 nm	0.1 dB
RF impedance	50 Ω
Fiber (core/cladding)	50/125 μm
RF connector	2.92 mm
Optical Connector	FC/PC or SC/PC

Note: All specifications subject to change without notice.



ORDERING INFORMATION

Product Description

Optical-to-Electrical Converter, 25 GHz (Bessel-Thomson) / 36 GHz (Flat), 830nm - 1600nm, 2.92mm connector

Product Code

OE6250G-M

Recommended Oscilloscope Configuration

36 GHz, 80 GS/s, 4 Ch, 32 Mpts/Ch LabMaster 10 Zi Acquisition Module

LabMaster 10-36Zi-A

SDA Master Control Module for LabMaster with 15.3" WXGA Color Display

SDA MCM-Zi-A

The OE6250G-M is compatible with all LabMaster 10Zi and WaveMaster 8Zi series oscilloscopes.
Optical-to-electrical converter bandwidth will be reduced if used with a lower-bandwidth oscilloscope.

Customer Service

Teledyne LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year. This warranty includes:

- No charge for return shipping
- Long-term 7-year support
- Upgrade to latest software at no charge



1-800-5-LeCroy
teledynelecroy.com

Local sales offices are located throughout the world.
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