

**New**  
from  
**Hamamatsu**

# Terabit Optical Oscilloscope C8660

**40 Gbps, 16-channel simultaneous measurement!**



Due to its bandwidth of 70 GHz per channel, this device can measure high-speed optical-communication signals (at 10 Gbps or 40 Gbps) with high precision.

Moreover, since simultaneous measurement of up to 16 channels is possible, multi-channel evaluation of characteristics of DWDM devices can be performed rapidly.

## Features

- Wide bandwidth measurement of 70 GHz or more
- Simultaneous measurement of 16 ch (optional)
- Virtually no distortion of waveform

## Applications

- Evaluation of optical device for DWDM
- Evaluation of DWDM system

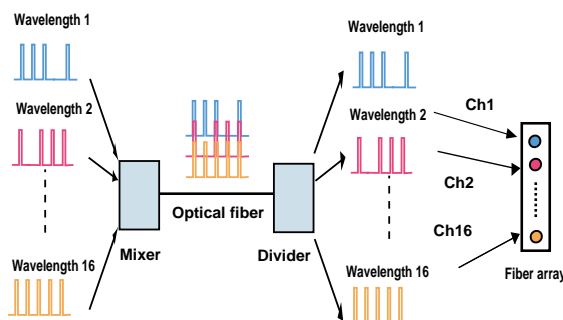
## Specifications

Bandwidth	> 70GHz × 16 ch (max.)
Temporal resolution	< 5ps
Spectral response	300 to 1650 nm
Optical input connector	MPO connector: 12 ch (standard), 16ch (optional)
Simultaneous optical input	12 ch (standard), 16ch (optional)
Trig. input frequency	99.5328MHz or 100MHz
Trig. input level	- 3 dBm to +5 dBm / SMA connector
Delay range	> ±5ns
Measurement time range	100ps / 200ps / 500ps / 1ns
Interfaces	USB: Control IEEE1394: Data transfer
Data analysis	Rise time / Fall time / FWHM / Time Difference
Accessories	12 ch MPO-12ch SC connector

## Operating Principle

The Terabit Optical Oscilloscope can measure up to 16 channels simultaneously of the demultiplexed optical output from a DWDM device.

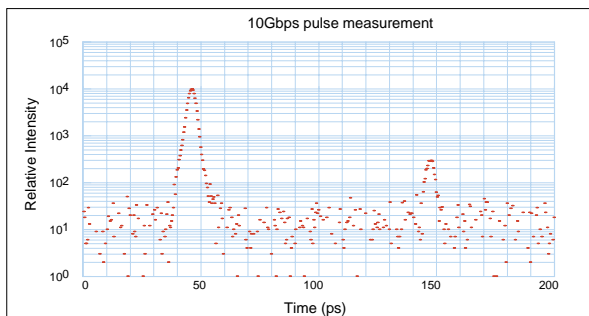
Since each channel has a bandwidth of 70 GHz or more, measurements can be performed with a high precision and within a short time.



**Terabit Optical  
Oscilloscope**

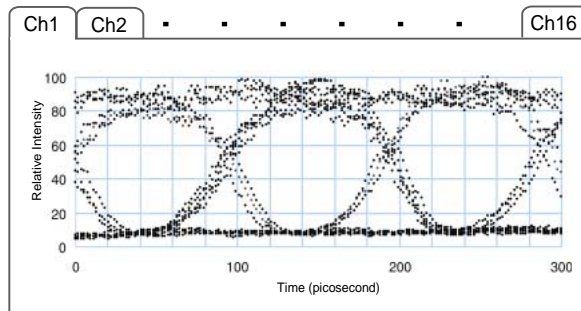
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## Spurious response



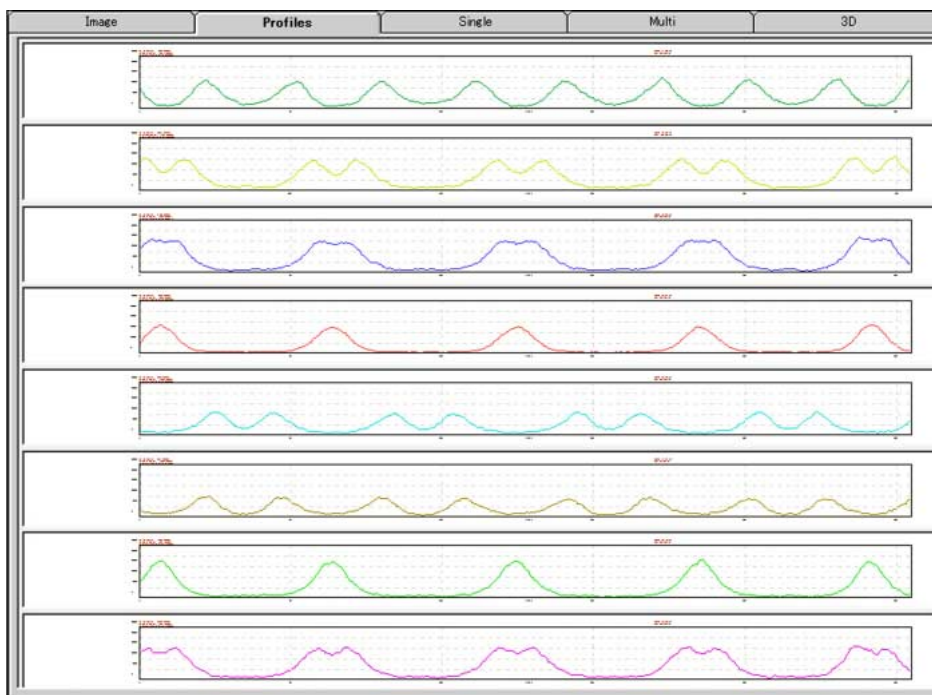
- ▲ 10 Gbps Return Zero signal  
The spurious response at the position of 150ps is measured.  
(Data courtesy of Communications Reserch Laboratory)

## Eye pattern



- ▲ 10 Gbps Non Return Zero modulated pattern  
(Data courtesy of Communications Research Laboratory )

## Multi-channel simultaneous measurement



- ▲ 8 channel simultaneous display.  
Time range:2000 ps/full scale



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Cat. No. SSCS1053E02  
SEP/2001 HPK  
Created in Japan (PDF)