

New
from
Hamamatsu

Real-time Optical Spectrum Analyzer C8716

For fast evaluation of DWDM optical components



The C8716 real-time optical spectrum analyzer is designed to characterize the spectral performance of fiber couplers and filters. A high-performance grating with multi-channel detector is employed allowing instantaneous results - ideal for manufacturing and inspection processes requiring high throughput.

Spectral performance of DWDM components such as filters, couplers, FBG-VAO, and optical amplifiers can be easily characterized by the C8716. Its connectorized input can easily be removed to allow free-space input for bulk type material input.

In addition, its small and lightweight package is well suited for OEM and system integration.

Features

- Excellent wavelength reproducibility
- High sensitivity in the IR region (900 nm to 1600 nm)
- Factory calibrated spectral response and wavelength axis

Applications

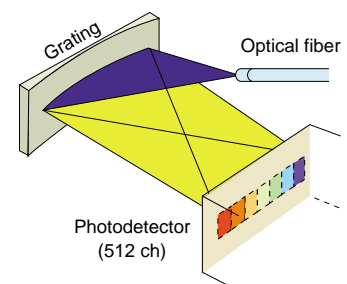
- Filter testing
- Evaluation of optical fiber couplers
- Evaluation of Laser Diode emission
- WDM monitor

Specifications

Type No.	C8716-01	C8716-02	C8716-03	C8716-04
Photodetector	InGaAs linear image sensor			
No. of photosensitive device channels	512 ch			
A/D resolution	16 bit			
Simultaneous measurement wavelength range	900 to 1650 nm	1400 to 1500 nm	1450 to 1550 nm	1525 to 1625 nm
Wavelength resolution	< 3.0 nm	< 0.6 nm	< 0.6 nm	< 0.6 nm
Minimum measurement time	9 ms			
External trigger input	TTL level / High impedance			
Interface	SCSI			
Line voltage	AC100V to 240V ± 10%			
Operating temperature	+ 10 to + 30°C			
Dimensional outline	262 (W) × 123.5 (H) × 433 (D) mm			

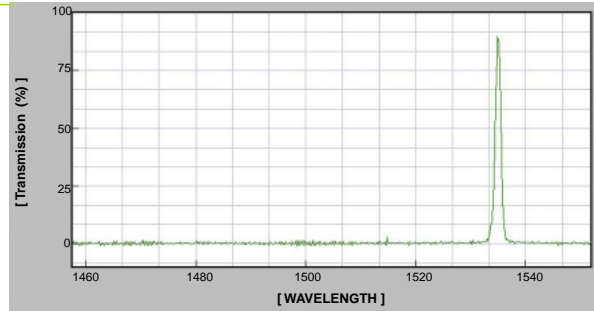
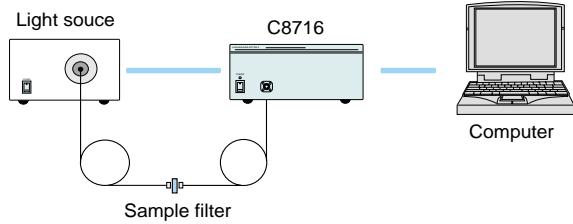
Measurement Principle

The light (blue) from the optical fiber is launched onto a high performance diffraction grating. The spectrally dispersed light (yellow) is then imaged onto a multi-channel photodetector. This simultaneous capture of the complete spectrum enables real-time analysis of an optical component.



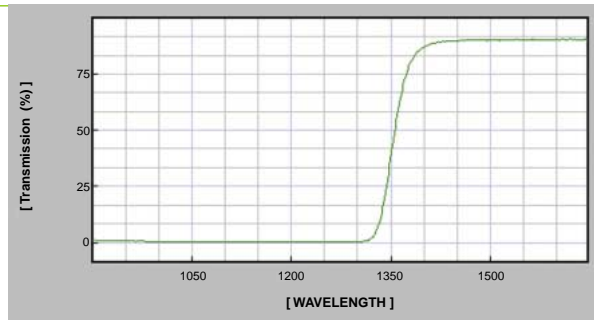
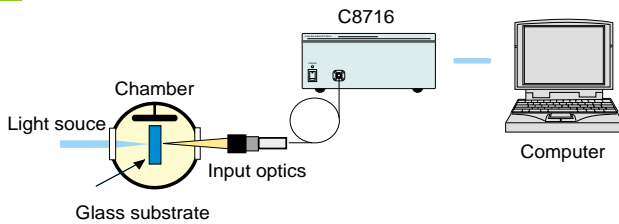
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Filter testing



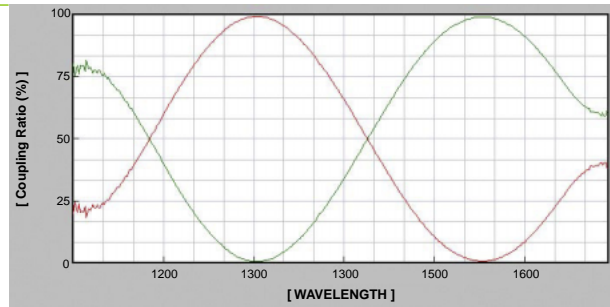
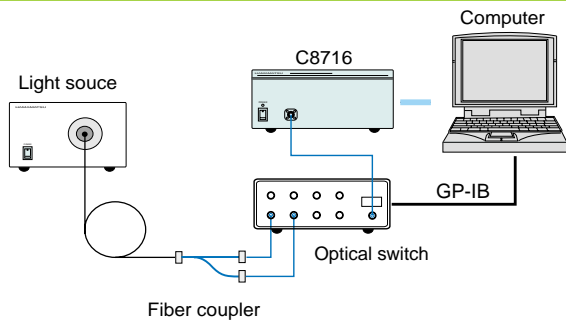
▲ Transmission spectrum of bandpass filter

Thin film testing



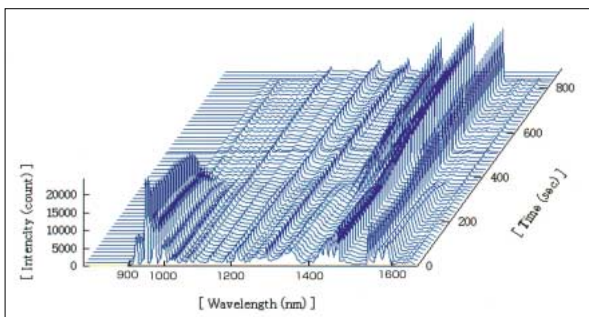
▲ Transmission spectrum of thin film

Evaluation of optical fiber coupler



▲ Coupling ratio of optical fiber coupler

Analysis example



▲ 3-dimensional display

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