

Real Time – Component Test System

Popular Applications

Ideal for in-process characterization, alignment, and packaging of components. The CTS is versatile enough to use with a variety of fixed and tunable components, including but not limited to fiber Bragg gratings, arrayed wave guides, optical filters and thin film mux/demux.

Revolutionary for observing shape changes in fiber Bragg grating mechanical sensors. FBG sensors are becoming more sophisticated. For many applications it is important to understand the both the central wavelength shift and the profile changes as the conditions of an FBG sensor change. The speed and resolution of the CTS make such measurements possible.

Features / Benefits

- High speed measurements allow for real time feedback during production, increasing yields
- “All in One Box” solution is the fastest in the business
- The internal absolute NIST wavelength reference and power reference insure accuracy and reliability
- GPIB compatible and comes complete with a built-in display

Description

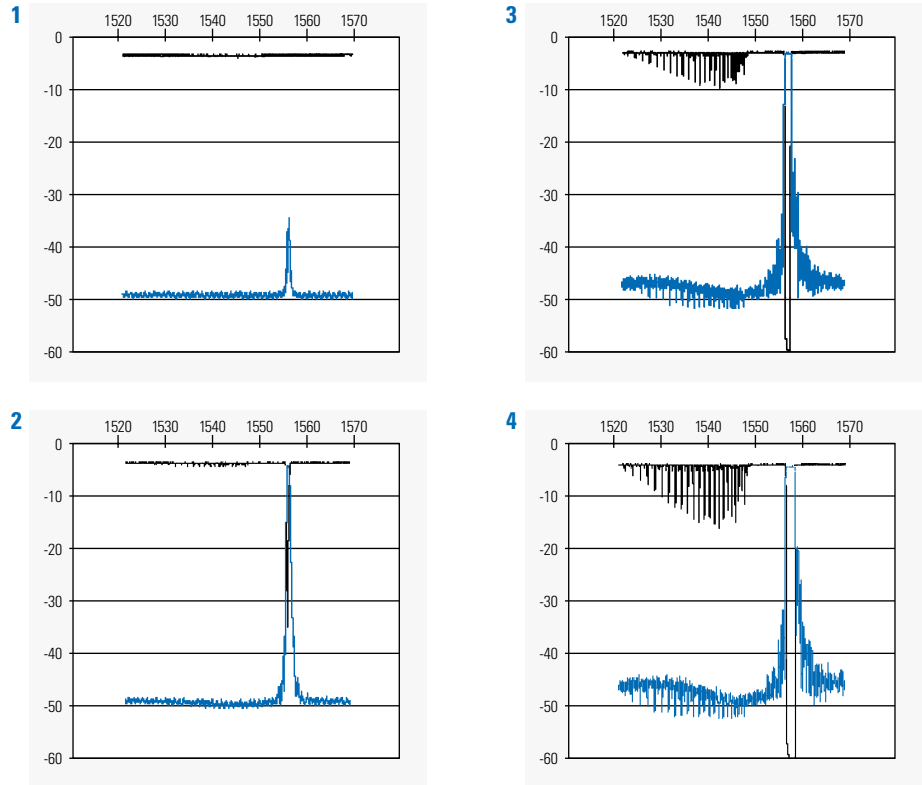
The versatile Micron Optics Real Time-Component Test System (RT-CTS) provides rapid, accurate evaluation of components. The self-contained system is composed of an erbium-doped fiber ring laser, an internal power monitor for normalization, a NIST-traceable absolute optical reference.

The two standard input channels allow simultaneous testing of two devices or the testing of one device in both transmission and reflection. Power and wavelength are automatically calibrated with each scan in less than 200 ms.

The RT-CTS is expandable to 48 channels. All 48 devices can be measured in less than two seconds. C&L and PDL enhancements are also available. Optical connections plus data collection and display can be distributed to remote locations throughout a manufacturing or test facility. This minimizes overall cost and maximizes flexibility.

Powered by dual processor architecture, the RT-CTS allows the user to sweep the wavelength range very rapidly, collect data and display the results during a manual or automated manufacturing process.

Time resolved measurements of grating growth during exposure allow feedback control of manufacturing processes. These are 4 snapshots of the reflection and transmission spectra obtained using the Micron Optics RT-CTS.



Specifications

System

Acquisition Time	200 msec or 2 sec
Dynamic Range	~ 70 dB
Operating Wavelength Range	1520 to 1570 nm (optional 1520-1620 nm)
Laser Linewidth	< 500 MHz
Wavelength Accuracy	+/- 1 pm (nominal)
Amplitude Accuracy	+/- 0.1 dB (0 - -60 dB)
Amplitude Flatness	0.1 dB (nominal)
Laser Output Power	~ 1 mW or ~ 0.5 mW
Receiver Channels	2, expandable to 48

Electrical

Power	110 or 220 VAC
Interface	GPIB

Mechanical

Dimensions	133 x 432 x 451 mm
Color LCD Display	162 mm (diagonal)
Printer for Screen Capture	160 x 164 x 59 mm (external)

Environmental

Operating Temperature	15° C to 35° C
Storage Temperature	-10° C to 65° C

Options

Additional Channels	3-48 (4 or 8 port chassis)
Polarization Dependent Loss	Yes
C&L Wavelength Range	1520 - 1620 nm