

## Applications

The Micron Optics si720T is used for testing fiber Bragg gratings, arrayed wave guides, optical filters, thin-film mux/demuxes and a wide variety of other fixed and tunable components. This versatility allows the si720T to be designed into many critical in-process applications:

- Real-time alignment of WDM components
  - Control FBG as it grows
  - Align optics and measure in real-time
- Final characterization of WDM components
  - Measure device performance with high accuracy si720T manual measurement techniques
- Quality inspection of WDM components
  - Set up Pass/Fail inspection criteria, save traces & compare data
- Automated testing of WDM modules
  - Integrate si720T into an Automated MFG station
- Use EDFA, Photo Detector-Array and switches for complete WDM Swept Laser Solution

## Description

The **Micron Optics si720T** Wavelength and Power Component Test System is quite possibly the fastest (5Hz sweeping operation), most accurate (1pm), widest dynamic range (>60dB) swept wavelength instrument available today. This self-contained system is composed of a high power, low noise swept laser, an internal power monitor for normalization, a NIST-traceable absolute optical reference, and two high-speed input detector channels.

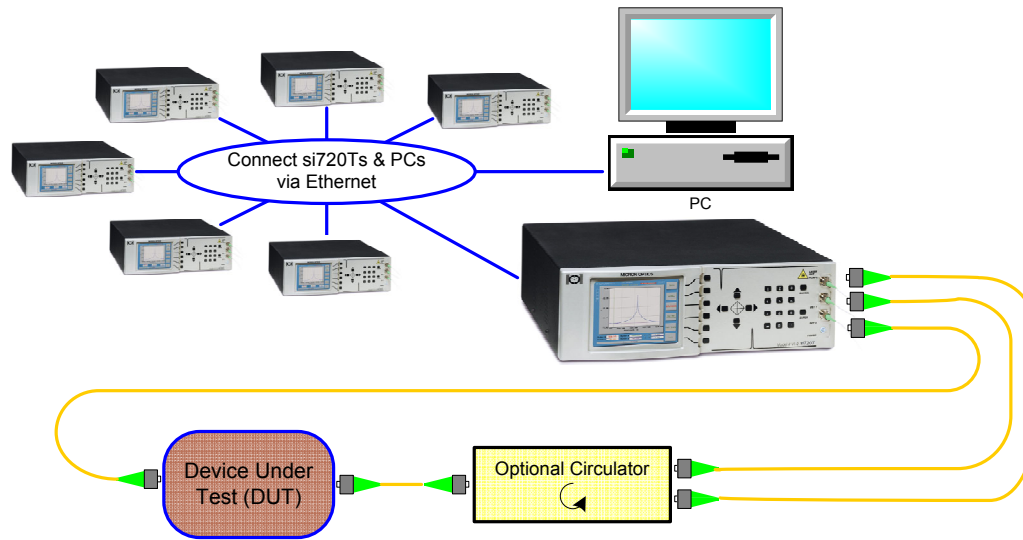


## Features

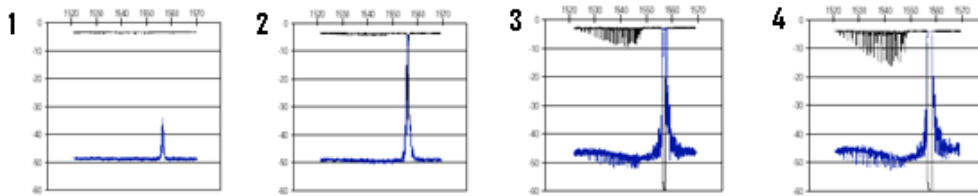
- **High-speed measurements allow for real-time feedback during production, increasing yields**
- **Two receiver channels to monitor transmission and reflection properties simultaneously**
- **“All-In-One-Box” solution is the fastest in the industry**
- **Internal NIST-traceable absolute wavelength reference and power reference ensure accuracy and reliability**
- **Optional GPIB interface available**
- **Built-in color display and control panel**

The two standard input channels allow for real-time simultaneous transmission and reflection testing of one device, or simultaneous testing of two devices. Power and wavelength are automatically calibrated with each 200 millisecond scan.

The si720T allows the user to rapidly sweep the wavelength range, collect data, and display the results during manual or automated manufacturing process – all in real time.



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 si720T.



**Specifications**

System	si720T
Acquisition Time	200 msec or 2 sec
Dynamic Range	> 60 dB
Operating Wavelength Range	1520 to 1570 nm
Laser Linewidth	< 500 MHz
Wavelength Accuracy (nominal)	+/- 1 pm
Amplitude Accuracy	+/- 0.1 dB (0 to -60 dB)
Amplitude Flatness (nominal)	0.1 dB
Laser Output Power (user selectable)	~ 1 mW or ~ 0.5 mW
Receiver Channels	2
Interface	Ethernet (optional GPIB available)
Optical Connectors	FC/APC
<b>Electrical</b>	
Power (user selectable)	110 or 220 VAC; 50/60 Hz
<b>Mechanical</b>	
Dimensions	133 x 432 x 451 mm
Weight	22 kg (48 lbs)
Color LCD Display	162 mm (diagonal)
<b>Environmental</b>	
Operating Temperature	15° C to 35° C
Storage Temperature	-10° C to 65° C
<b>Options</b>	
Printer (screen capture)	160 x 164 x 59 mm