



- 1 kHz Sampling
- Ultra-high Sensitivity
- High accuracy measurements
- Structural Health Monitoring

The W7 is a fully featured interrogation instrument designed for laboratory use. It offers 16 optical channels, a choice of scanning frequencies and performance options. The integrated touch screen monitor and 100 GB HDD make the W7 a most versatile instrument. W7 is manufactured by Micron Optics Inc.

Specifications	W7-25	W7-28	W7-35	W7-38
Optical				
Wavelength Range	1510 – 1590 nm			
Number of Optical Channels	4	16	4	16
Number of Sensors / Channel	80 (160 with expanded λ range)			
Scan Frequency	2 Hz	0.5 Hz	1 kHz	250 Hz
Wavelength accuracy ¹	1 pm			
Wavelength stability ²	1 pm			
Wavelength repeatability ³	0.5pm at 1Hz, 0.2pm at 0.5Hz, 1pm at 0.5Hz		2 pm typical; 5 pm max	
Dynamic range ⁴	50 dB	40 dB	25 dB with user selectable gain	
FBG requirement ⁵	0.25 +/- 0.05nm, FWHM (-3dB point); >15dB isolation		-	
Optical Connector	FC/APC			
Mechanical				
Dimensions	520 mm x 499 mm x 165 mm			
Weight	18.1 kg			
Environmental				
Operating Temperature	10 to 35 °C			
Operating Humidity	20 to 80%, non-condensing			
Electrical				
Interfaces	USB 2.0, Ethernet, 17" touch screen LCD			
On-board storage	100GB HDD			
Input Voltage	7 –36 VDC(Universal AC adaptor included)			
Power Consumption 12V	60W typical, 75 W max		65W typical, 80 W max	
Data Management				
Operating environment	XP Embedded			

Notes

1. Per NIST Technical Note 1297, 1994 Edition, Section D.1.1.1, definition of "accuracy of measurement".
2. Captures effects of long term use over full operating temperature range of the instrument.

3. Per NIST Technical Note 1297, 1994 Edition, Section D.1.1.2, definition of "repeatability [of results of measurements]".
4. Defined as laser launch power minus detection noise floor.
5. Used for performance qualification (See Notes 2 and 3). Bandwidths of 0.1 to 1.0nm may reduce performance.

Specifications subject to change without notice

W7 Software Utilities

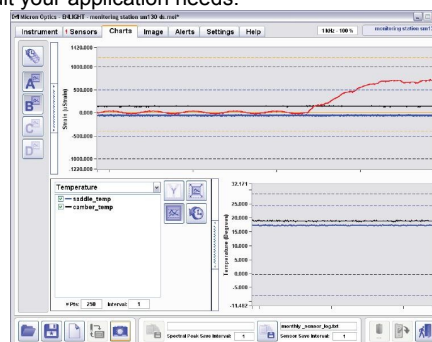
Overview of applications supplied with every W7 interrogator.

Data analysis tools to provide you with information in a variety of formats to suit your application needs.



Sensor set up view

FFT view



Time domain view

Table view