

# UC INSTRUMENTS GM8036 LASER SWEEP OPTICAL SPECTRUM ANALYZER (1525 ~ 1610 nm)

Technical Specifications v1.01  
March, 2011



# **GM8036 LASER SWEEP OPTICAL SPECTRUM ANALYZER (1525 ~ 1610 nm)**

UC INSTRUMENTS' GM8036 laser sweep optical spectrum analyzer is a PC control spectrum analyze system for passive components tests. It provides high performance in testing CWDM/DWDM components, GFF, Interleaver, WSS, AWG & PLC components, optical amplifiers, DWDM systems, and performing other general-purpose fiber optical test and measurement applications. This system can be integrated with optical attenuator & power meter, leading to a high performance test system platform with high wavelength accuracy and rapid scan wavelength tunability.

Its PC-based flexible application test software can readily build up customer desirable testing templates and generate test reports. It is also an excellent testing platform for passive components processing alignment and monitor. Its fast sweep function can directly show optical spectrum of products on production lines. Build-in tunable laser source and power meter can function either independently serving as laser source and power meter or collaboratively performing sweep optical spectrum analysis function.

## **Features**

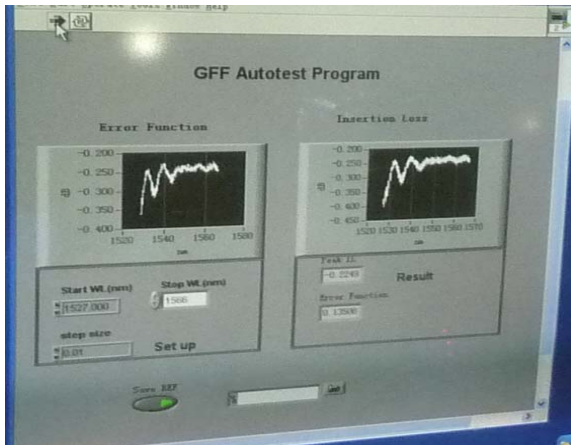
- Rapid wavelength scan
- High wavelength accuracy
- Fast startup
- High laser power output
- Integrated with power meter, PDL controller, return loss meter option

## **Applications**

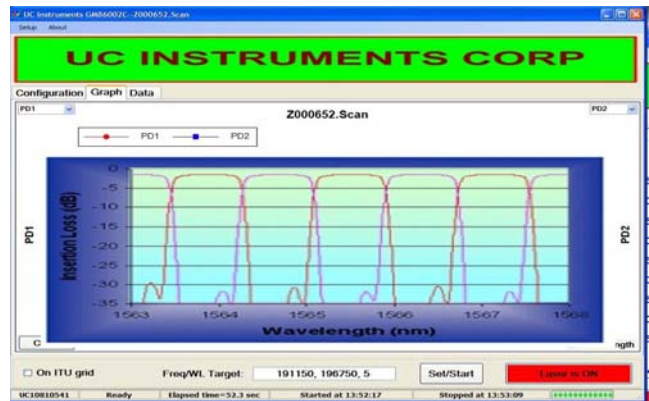
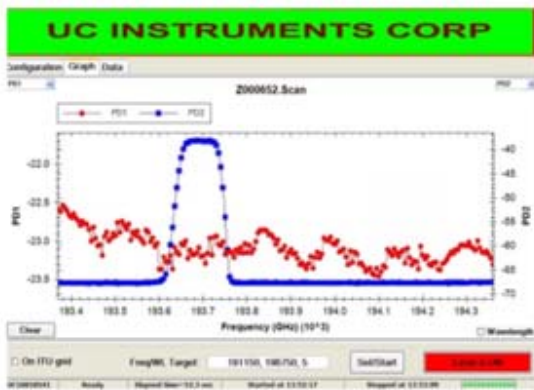
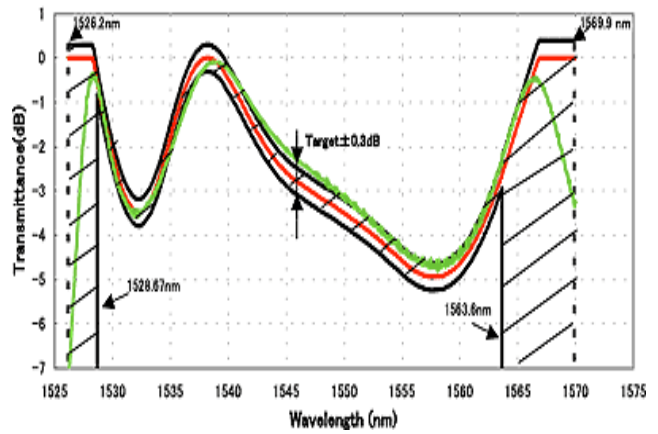
- CWDM/DWDM, WSS, AWG, PLC, GFF and Interleaver critical components and modules testing
- Fiber sensor tests
- PMD and PDL measurements
- Fiber optical, telecom R&D lab tests
- Easy to be integrated into a passive fiber components testing system

# Specifications

<b>Model #</b>	<b>GM8036</b>
<b>Tunable Laser Source</b>	
Wavelength range	1525.00 to 1568.00 nm
Output Power	$\geq 20$ mW
Wavelength resolution	1.0 pm
Absolute wavelength accuracy	$\pm 10$ pm, tpy. $< 5$ pm
Relative wavelength accuracy	$\pm 5$ pm, Typ. $\pm 2$ pm
Wavelength repeatability	$\pm 3$ pm, tpy. $\pm 1$ pm
Wavelength stability (typ., 24 hrs at constant temperature)	$\leq \pm 5$ pm
Tuning speed	$\leq 2$ ms per step
Power stability	$< \pm 0.1$ dB, 24 hours.
Power repeatability	$\pm 0.05$ dB
Power linearity	$\pm 0.3$ dB
Power flatness versus wavelength	0.3 dB; typ., 0.05dB.
Side-mode Suppression ratio	$\geq 40$ dBc
Relative intensity noise(RIN. Typ.)	$< -135$ dB
<b>Power Meter</b>	
Wavelength Range	850 nm to 1620 nm
Power Measurement Range	+13 dBm to -70 dBm
Power Accuracy	$< \pm 4\%$
Power repeatability	$< 0.1$ dB
<b>Sweep Function</b>	
Sweep Mode	Fast Continue Spectrum Sweep
Resolution	1 PM
Accuracy	5 PM,
Power Display	Peak Power Display
Center Wavelength Function	3 dB Down Center Wavelength Display
Reference Function	Testing Reference Setup
<b>Power Adaptor Power</b>	
	AC 100 - 240 V $\pm 10\%$ , 48 - 66 Hz, 100 VA max.
<b>Display</b>	
	PC Interface
Environmental Temperature	$-40^{\circ}$ C to $+80^{\circ}$ C
Storage Temperature	$0^{\circ}$ C to $+45^{\circ}$ C
Operating Temperature	$< 95\%$ R.H. from $0^{\circ}$ C to $+45^{\circ}$ C
Humidity	
Work Environment	$-10^{\circ}$ C to $+70^{\circ}$ C $0^{\circ}$ C to $+45^{\circ}$ C $< 95\%$ R.H. from $0^{\circ}$ C to $+45^{\circ}$ C
Dimensions	Standard 1U Rack
Weight	10.0 lbs



Gain Flattening Filter



GFF, DWDM, Interleaver Test Spectrum

# UC INSTRUMENTS' Test and Measurement Supports, Services and Assistance

UC INSTRUMENTS provides high performance, high value, low cost, affordable test and measurement instrument solutions for our customers. Our extensive support sources can help you choose right UC INSTRUMENTS' products for your specific applications and apply them successfully. Every instrument /system we sell has a global warranty. All of our instruments are with at least 12 months factory warranty.

## Our Promises

All of UC INSTRUMENTS' test and measurement instruments and systems meet their advertised performance and functionality. When you select a UC INSTRUMENTS' product, we can help your product operation with our decade experiences, and provide the basic measurement assistance for the use of special capabilities.

## Contact Information

### United States:

#### UC INSTRUMENTS CORP.

3652 Edison Way  
Fremont, CA 94538  
USA

Tel: 1-510-366-7353

Fax: 1-510-795-1795

[www.ucinstruments.com](http://www.ucinstruments.com)

Product specifications and descriptions in this documentation subject to change without notice.

Copyright © 2008 UC INSTRUMENTS CORP.

May, 2010

31000036 V1.01