Fast Wavelength-Swept Laser

Specification

Arcadia Optronix wavelength-swept and tunable laser is based on the semiconductor DBR laser technology and is capable of continuous-wave, wavelength-switched, as well as rapid sweep operation with single longitudinal-mode emission. Designed and manufactured with advanced calibration software, hardware, and firmware technologies, the swept lasers are widely deployed in FBG sensing systems, frequency domain ranging, and passive component test systems.

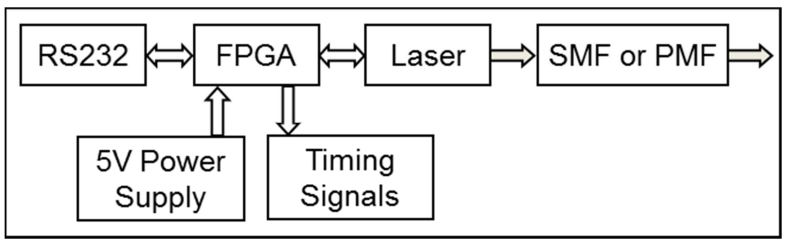
Key Features:

- Fast Swept Rate (1 GHz in 20 ns/Step)
- Selectable Sweep Frequency (1 Hz to >200 kHz)
- Programmable Sweep Range (< 40 nm)
- Narrow Linewidth (1 - 5 MHz)
- High Output Power (10 - 20 mW)
- Low Power Consumption
- High Stability
- Compact Structure

Application:

- Fiber Grating Sensor Interrogator System
- Optical Passive Components test system
- Scanning Spectrometer
- Frequency Domain Ranging

Module Configuration:



Arcadia Optronix

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Technical Specification:

Model No.	GC-96002C	GC-96002L
Wavelength Range	1528 ~ 1568 nm	1569~1609 nm
Optical Power	> 10 mW	
Resolution	1 GHz/step (Programmable)	
Swept Speed	20 ns/step to 0.1 ms/step (Programmable)	
Maximum Wavelength Steps	5000	
Wavelength Repeatability	+/-2 pm ; Typ. +/-1 pm	
Linewidth	< 5 MHz ; Typ 1 MHz	
Power Stability	+/- 0.05 dB	
Spectral Flatness	< 0.5 dB	
Working Temperature Range	-15 ~ 55 ℃	
SMSR	>40 dB	
RIN	< -135 dB/Hz	
Power Supply	+5V / 3A	
Trigger Interface	LVTTL (SMA)	
Communication Interface	RS232	
Dimension	224×133×43 mm	
Fiber Adapter	FC/UPC or Specify	

Notes:

1. A sync signal is provided at the beginning of each sweep.
2. A wavelength clock signal is provided at the rising edge of each wavelength step.
3. Special timing signals can be customized upon request.
3. The output optical fiber can be SM fiber or PM fiber.