

ACP92050-CG-PM 2kHz Fast Swept Tunable Laser Source



ACP92050-CG-PM 2kHz Fast Swept Tunable Laser modules offer superior performances for testing of DWDM, AWG, WSS, OPM components, fiber sensing (especially vibration fiber sensing), optical amplifiers, and other general purpose fiber optical test and measurement applications requiring high wavelength resolution.

ACP92050-CG-PM Tunable Laser module is connected to a PC with RS232 cable, along with control software that we also provide, forming a high accuracy, high power, small dimension, fast startup, affordable tunable laser source system. It provides C band wavelength options. The module can be easily integrated into customers' systems.

Our ACP92050-CG-PM Swept Lasers are widely deployed in FBG sensing systems and passive component test systems.

PERFORMANCE SPECIFICATIONS

Parameter	Specifications
Model #	ACP92050-CG-PM
Wavelength Range	40nm for C-band (From 1528 ~ 1568nm)
Optical Power	20mW
Resolution	1GHz
Absolute Wavelength Accuracy	$\pm 10\text{pm}$, $\pm 5\text{pm}$ (Typ.)
Relative Wavelength Accuracy	$\pm 5\text{pm}$, $\pm 2\text{pm}$ (Typ.)
Wavelength Repeatability	$\pm 2\text{pm}$, $\pm 1\text{pm}$ (Typ.)
Wavelength Stability (-5 to 55°C)	$< \pm 2\text{pm}$
Sweep Speed	2KHz(Max)/500Hz/100Hz /1Hz select-able at 5GHz Sweep Step; 200Hz(Max)/100Hz/20Hz /0.2Hz select-able at 1GHz Sweep Step;
Default Sweep Step	5GHz (minimum sweep step 1GHz select-able)
Power Stability	$\pm 0.05\text{dB}$
Spectral Flatness	$< 0.5\text{dB}$
Line Width	$\leq 2.0\text{MHz}$
SMSR	$> 40\text{dB}$
RIN	$< -135\text{dB/Hz}$
Power Supply	+5V/3A
Line Width	$< 5\text{MHz}$, 1MHz (Typ.)
Trigger Interface	LVTTL
Communication Interface	RS232 or TTL
Fiber Adaptor	2.0mm Key Slot PM FC/APC
Working Temperature Range	-10 to 55°C
Package Dimensions (HxWxD)	15.6mm x 72mm x 118mm

FEATURES

- Wavelength Range C-band 1528 ~ 1568nm
- High Output Power: +13dBm
- Low Power Consumption
- Wide Operating Temperature Range
- Fast Sweep Speed (8000 nm/Second at 1GHz step)
- Computer GUI Control
- 5V, 2A DC Power Supply, can be used as a Portable C Band Tunable Laser Source. (Support 5V, 2A Regular Power Bank Power Supply)

APPLICATION

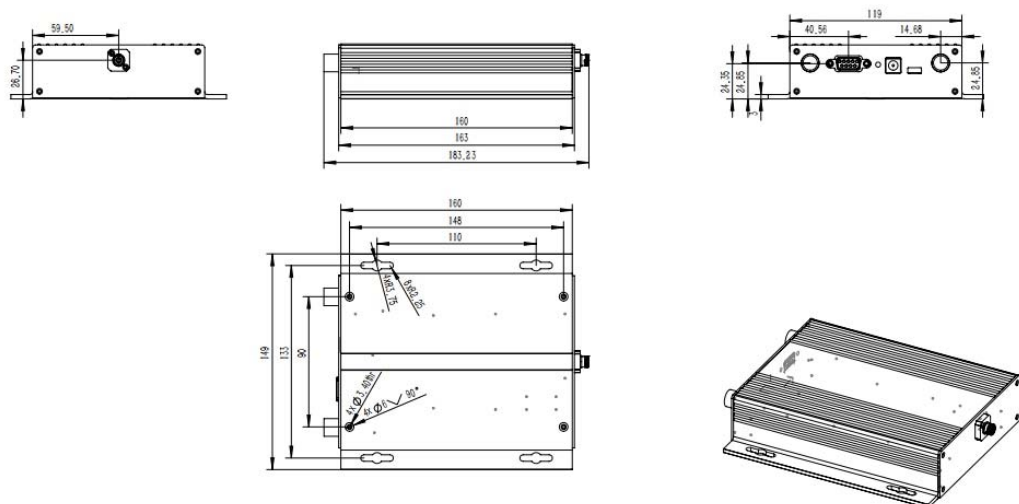
- Fiber Grating Sensor Interrogator System
- Optical Passive Components Automatic Test System
- Scanning Spectrometer
- Laser Ranging
- Sweep LiDAR System
- Field DWDM System Inspection

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POWER SUPPLY & COMMUNICATION PORT CONNECTION

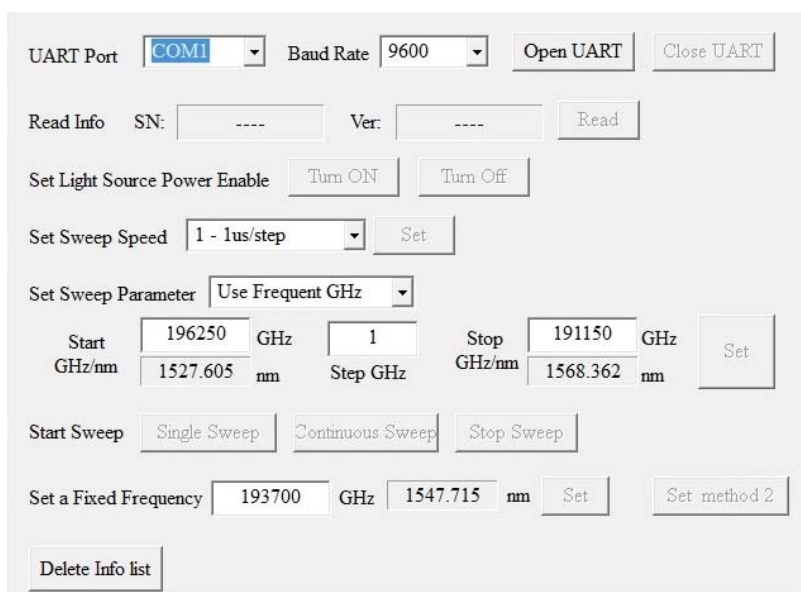


DIMENSIONS



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COMPUTER CONTROL GUI INTERFACE



The screenshot displays the computer control GUI interface for the ACP92050-CG-PM 2kHz Fast Swept Tunable Laser Source. The interface is organized into several sections with various controls and buttons.

UART Port: A dropdown menu is set to "COM1". Next to it is a "Baud Rate" dropdown set to "9600". There are two buttons: "Open UART" and "Close UART".

Read Info: This section includes input fields for "SN:" (containing "----") and "Ver:" (containing "----"), followed by a "Read" button.

Set Light Source Power Enable: This section contains two buttons: "Turn ON" and "Turn Off".

Set Sweep Speed: A dropdown menu is set to "1 - 1us/step", followed by a "Set" button.

Set Sweep Parameter: A dropdown menu is set to "Use Frequent GHz".

Start/Stop Sweep Parameters: This section contains two columns of input fields. The first column has "Start GHz/nm" (196250) and "1527.605 nm". The second column has "Stop GHz/nm" (191150) and "1568.362 nm". There is a "Set" button to the right of these fields.

Start Sweep: This section contains three buttons: "Single Sweep", "Continuous Sweep", and "Stop Sweep".

Set a Fixed Frequency: This section contains two input fields: "193700 GHz" and "1547.715 nm", followed by a "Set" button.

Set method 2: A button labeled "Set method 2".

Delete Info list: A button labeled "Delete Info list".