



BI4201-LD

LD Burn-In System

Version 1.1





Product Description

Semight Instruments BI4201-LD LD TO BI system can provide LD laser charged BI system under high temperature conditions. BI current range of up to 200mA is provided, and the BI current accuracy is five thousandths of the full range, which is the highest BI current accuracy in the industry. BI temperature can be up to 150 °C, which supports the monitoring and storage of multiple parameters such as current read back monitoring, voltage monitoring, backlight monitoring, threshold scanning, BI board temperature monitoring, driver board incoming voltage monitoring, and driver board temperature monitoring in BI process, so as to ensure the integrity of the product monitoring indicators in BI process. With built-in UPS power supply and high specification circuit design, it can guarantee the safety protection of products in BI process. The system is equipped with 21.5 inch display, which makes the BI data display intuitive, is easy to operate, provides good user experience and flexible software configuration, and is simple to set. The system is widely used in the production BI link of LD TO and the product reliability department.

Key Features

- Dual temperature zone: BI of different products can be conducted independently in each temperature zone;
- Large capacity: Each temperature zone supports the BI of 1,536 pieces of TO, and 3,072 pieces of TO in total;
- Software switching pin definition: Different pin packages in the current industry can be realized by software switching;
- Strong compatibility: BI of low current VCSEL TO and BI of high current FP/DFB TO;
- For SOCKE of TO56, the socket pin is not opened and not damaged;
- Provide supporting TO38, TO46, TO56 BI boards, as well as unique 25G double shrapnel BI boards;
- The monitoring parameters are complete: Including monitoring BI current, forward voltage and backlight current;
- Support the calculation of LIV curve and threshold through backlight scanning;
- Graphical display of different monitoring parameter values, including temperature, BI current, forward voltage and backlight current;
- It supports the software to custom, develop and connect with the customer's MES system and database;
- It supports the door-opening alarm, door-opening power failure and other theft-proof functions;
- The built-in UPS power supply is provided, which can effectively protect the loss of abnormal data during BI;
- It meets EOS and ESD protection and EHS requirements ;
- The software supports permission and account management;

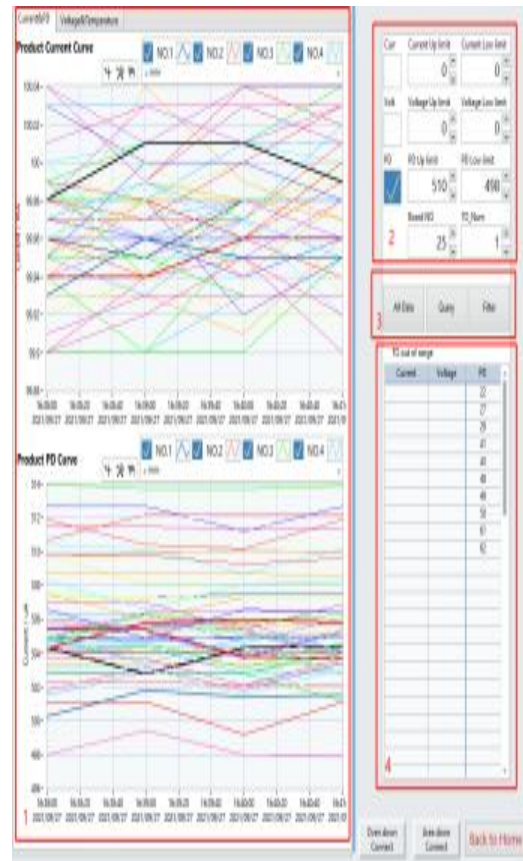


Software function

Semight Instruments BI4201 test software platform of Semight Instruments is a configurable platform with a simple and intuitive user interface.



Burn-in GUI



LD Device LIV Sca

Technical Specification

System Functions	Dimensions (mm)	1520L*1000W*1825H
	Supported fixture type	Standard 8X8 Fixture
	Number of TOs supported by the system	3,072
	System temperature zone	Two independent temperature zones
	LD TO Burn-in	LD BI, MPD monitoring, LIV scanning
	Software function	Support the editing of judgment standards of test conditions, test algorithms, test processes, and test results; Support permission control. Support full sample test monitoring. Support machine unit name monitoring.
	Pin switching	Support switching of different device software pin definitions
	MES system interface	It supports the software to custom, develop and dock with the customer's MES system and database;
	Data saving	Storage of test raw data, calculation results and detailed logs of system operation
System power supply	380V, 10KW(full load)	



Temperature Control	Temperature range	Normal temperature to 150°C
	Ramp up speed	3°C/Min (No-load) 1.5°C/Min (Full load)
	Temperature control accuracy	0.1°C
	Temperature accuracy	±1°C
	Temperature uniformity (product position: at 9 o'clock in the space)	±1.5°C full load (≤100°C) ±2°C full load (≤120°C) ±3°C full load (≤150°C)
LD TO Burn-in	Driver board type	Independent operation and control of each channel
	Drive current range	0-20mA and 0-200mA Two gears
	Drive current accuracy	200mA: 0.5% FS , 20mA: 0.5% FS,
	Drive current stability	≤±1%FS
	LD voltage range	0-5.0V
	LD voltage accuracy	0.3%Full range ±20mV
	MPD bias voltage range	0-5V
	MPD bias voltage accuracy	0.3%FS±100mV
	MPD current range	Gear 1 : 0- 500uA Gear2 : 0-1000uA Gear 3 : 0-2500uA
	MPD current accuracy	±0.3% FS
LIV scanning	Support calculation of I _{th} and other parameters by scanning LIV with MPD in BI process	
Safety Protection	Power off under normal operation	≤ 5mA (it is needed to power the power oscilloscope separately to eliminate the interference of the power supply network)
	Power on under normal operation	≤ 5mA (it is needed to power the power oscilloscope separately to eliminate the interference of the power supply network)
	Power failure under mains electricity	≤ 5mA (it is needed to power the power oscilloscope separately to eliminate the interference of the power supply network)
	Power on under mains electricity	≤ 5mA (it is needed to power the power oscilloscope separately to eliminate the interference of the power supply network)
	ESD	Use of anti-ESD materials Surface resistance: $1 \times 10^5 \Omega < X < 1 \times 10^9 \Omega$; Friction voltage: < 100V; Grounding; It is necessary to ground all isolated conductors in the system, all instruments and the rack, with the grounding resistance < 4 Ω. ESD prevention measures shall be taken for mouse and keyboard
	Safety	There are no sharp edges and corners and no risk of leakage in the equipment
Cleaning	The system is free of chips, paint and rust phenomena	



Ordering Information

BI4201	TO Burn-In System
Type Option	
LD	Standard 3072 Channels LD TO Burn-In System
APD/PIN	Standard 3072 Channels APD/APD-TIA/PIN/PIN-TIA TO Burn-In System
BI board option	
BIN-64TO4P200	TO56 4PIN BI board
BIN-64TO5P200	TO46 5PIN BI board
BIN-COC32-LD	CoC packaging BI board



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About Semight Instruments

Semight Instruments is a leading provider of global high-end test & measurement instrument and equipment. The company provides products and service to R&D, manufacture of high-speed communication, optical chip and semiconductor testing fields. Semight's testing instrument includes high-speed Bit Error Ratio Tester, Network Traffic Analyzer, broadband Sampling Oscilloscope, high-precision Wavelength Meter and digital Source Measure Unit. In addition, the company delivers optoelectronic hybrid ATE, laser chip burn-in system, laser chip tester, silicon photonics wafer tester, power chip tester, wafer level burn-in system to domestic and international customers.

Semight Instruments adheres to the customer-centric, employee-based, innovation-driven, and continues to provide customer trustworthy, cost-effective and high-performance products and service.

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*This information is subject to change without notice.