reliable flexible safe

SENTINEL

LASER DIODE RELIABILITY AND BURN-IN SYSTEM

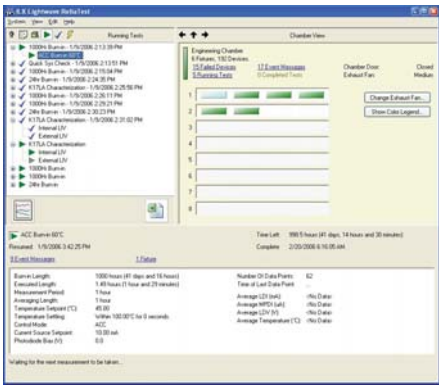
LRS-9434

ILX Lightwave®
A Newport Company

RELIABILITY AND BURN-IN

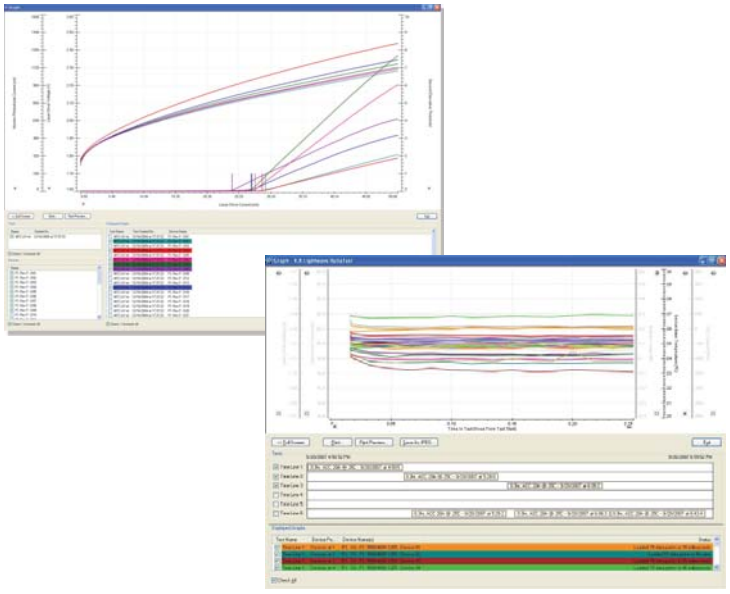
SENTINEL LRS 9434

Reliability Testing



- Stable laser diode control
- Accurate measurement over thousands of hours
- Constant current or constant power modes
- Custom auxiliary measurement and control

ReliaTest Software



- Real time burn-in and LIV test data
- CSV formatted data access while tests are running
- Advanced graphing capabilities
- Run sequential burn-in and LIV test steps

Individual Fixture Temperature Control

- Temperature range of 40°C to 150°C
- Long term stability
- Uniform temperature control
- Custom temperature ranges

Flexibility

- Run up to 44 separate test sequences
- Up to 1408 channels
- 1 - 11 shelves
- Custom fixture designs

Designed to Protect Your Laser

- Programmable current ramp on and off to reduce thermal shock
- Over current protection
- Over and under temperature protection
- Controlled shutdown on power failure

Custom Design the System to Your Needs

LRS-9434 SPECIFICATIONS

System Capacity	1408 devices
Device Types Supported	TO-Can, TOSA, COC, Custom Customer Packages
Devices per Fixture	Up to 32
TEMPERATURE CONTROL	
Temperature Range	40°C - 150°C
Temperature Control	Per fixture
Temperature Accuracy	±2.0°C
Temperature Stability	±0.2°C
LASER CONTROL	
Output Polarity	Bipolar, user selectable
Laser Drive Current	
Range[1]	1 mA to 500 mA
Setpoint Accuracy	±0.5 mA
Stability[2]	±0.5 mA
Resolution	50 µA
Operational Transients	<10 mA
Burst and Surge Transients	<36 mA
Compliance Voltage	3V typical; high voltages available upon request
Control Modes	ACC, APC, LIV
MEASUREMENT FUNCTIONS	
Laser Voltage Range	0 - 3.0V
Laser Voltage Accuracy	±16 mV
Internal Monitor Photodiode	
Reverse Bias Range	0 - 8V
Measurement Range	0 - 2000 mA
Accuracy	±2 mA
EXTERNAL PHOTODIODE	
Optical Power Measurement Range	Multiple ranges available up to 500 mW
Optical Power Measurement Accuracy	±20% of full scale
Optical Power Measurement Resolution	±0.1% of full scale
Optical Power Measurement Stability	±0.1% of full scale; long term
Detector Type	SI or InGaAs photodiode
Wavelength Range	400 - 1600 nm
Typical Detector Dark Noise	±0.05% of full scale
SYSTEM CONTROL COMPUTER AND SUPERVISORY SOFTWARE	
Computer Type	Laptop
Minimum Specifications	2 GHz Dual Core CPU, 8 GB RAM, 100GB HDD
Battery Operation	>30 minutes
Power Requirements	115/230 VAC, 50/60 Hz, single phase, 10A
Operating System	Microsoft Windows® 7 or newer
System Control Software	ReliaTest™
GENERAL	
Size and Weight	15 cm x 67cm x 67 cm; 26 kg
Power Requirements	100-240 VAC, 50/60 Hz, 10A

NOTES: Temperature control range depends on total power dissipated on the fixture. 1) Higher currents can be achieved by summing current sources on custom fixtures. 2) Stability measured over 1000 hours.

Proven Protection.

- Pioneer in laser diode protection
- Drives down laser damaging transient
- Suppresses electrostatic discharges
- Trusted reliability and proven results

Over thirty years ago, ILX Lightwave introduced the world's first precision laser diode current source. ILX continues to develop and deliver laser diode protection features that are the standard for laser diode control.

Why Choose ILX Lightwave?

Experience.

For thirty years, ILX Lightwave has been a pioneer in laser diode instrumentation and test systems, starting with the industry's first precision laser diode current source in 1986. Since then, we have continued to grow and evolve with the expanding photonic industry, building a tradition of innovation, quality, and customer service.

Quality.

ILX Lightwave has maintained ISO 9000 certification since 2001. Strong internal systems for problem identification and resolution have resulted in continuous improvement of our products and services. We believe that quality is not just something you build into a product; it's something you build into everything you do.

Commitment.

ILX Lightwave's mission is to be the world leader in laser diode instrumentation and test systems. ILX Lightwave has been developing high performance reliability and burn-in test systems for over 15 years and continues to invest senior engineering resources to develop new systems.

After Sales Support.

ILX understands the need for fast, technically accurate responses to all support requests. In addition to customer service engineers, our test system customers have direct access to ILX Lightwave application and design engineers to ensure the highest level of technical support.

(406) 586-1244 ◆ (800) 459-9459 ◆ sales@ilxlightwave.com ◆ www.newport.com/ilxlightwave

ILX Lightwave®
A Newport Company

REV05.110216