

LFT – A CHARACTERIZING LASER BAR BURN-IN TESTER



Nanofoot LFT series burn-in testers are designed for laser diode manufacturing industry. Stand alone LFT test stations are optimal for high power laser diode burn-in testing and quality assurance. Unique characterization features of LFT testers make them also suitable for simultaneous laser diode characterization and data sheet generation.

Each LFT system is assembled to meet customer's specifications on laser bar optical power, mechanical dimensions, measurement features and throughput.

A typical LFT system consists simultaneous burn-in station for 10 to 50 high power laser bars each emitting up to 100 W of optical power.

A system uses shared measurement instruments and laser diode temperature controller for all laser bars making it very cost effective solution when compared to competing systems.

MAJOR CONTRIBUTIONS

With respect to laser diode parameter characterization, the LFT system provides an outstanding list of analysis features, which are mostly divided into the subsets as follows:

- LIV sweep (light power, current, voltage) and derived analysis units
- Optional optical spectrum measurement
- Optional beam profile analysis (far field)
- Optional by-emitter analysis (useful to characterize the failure mechanism of the bar)

SOFTWARE FEATURES

A key part of the system is easy to use and flexible C++ written software that can be used to make, store and run fully configurable measurement recipes. User can easily run complicated measurement routines and analysis. Software stores data and analysis results to various formats including, CSV, PDF and optionally SQL- database.

LFT software is able to display and analyze results in several ways, including:

- Measurement representing characteristics of single moment
- Measurement result vs. time representation – i.e. power or spectrum drifting vs aging

The software supports continuous duty operation where any amount of laser bars can be loaded and unloaded from the tester without aborting measurement of ongoing devices. The software also allows seamlessly continuing burn-in testing even if component has been temporarily removed from the tester.

Highlights of the LFT software architecture:

- Ability to pause, resume and modify burn-in testing at any moment
- Continuous safety limit monitoring and controlled recovery from a fault
- Integrated result viewer with various plotting options
- Continuous data and event logging to CSV format and database
- Saving selected measurements to separate file



DELIVERY, PRICING, CONTACT DETAILS

Due to the modular structure, LFT can be customized as per the customer's preferences.

We shall be pleased to make a proposal and at the same time provide you pricing information. Please contact Nanofoot:

Contact: sales@nanofoot.fi; or call +358 40 541 5062

Web: www.nanofoot.fi

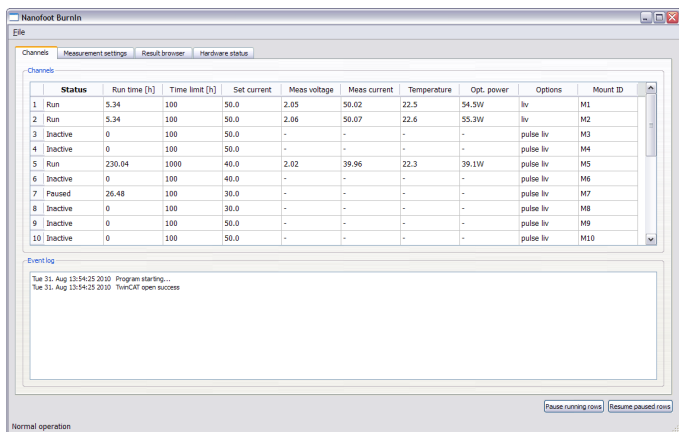


Fig 1: A running burn-in task. Data in the table is freely modifiable and real-time interactive with the actual burn-in process.

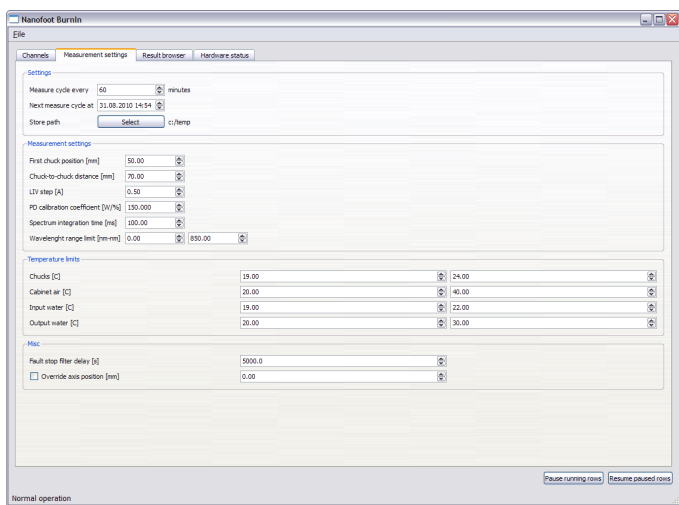


Fig 2: General settings and fault monitoring limits.

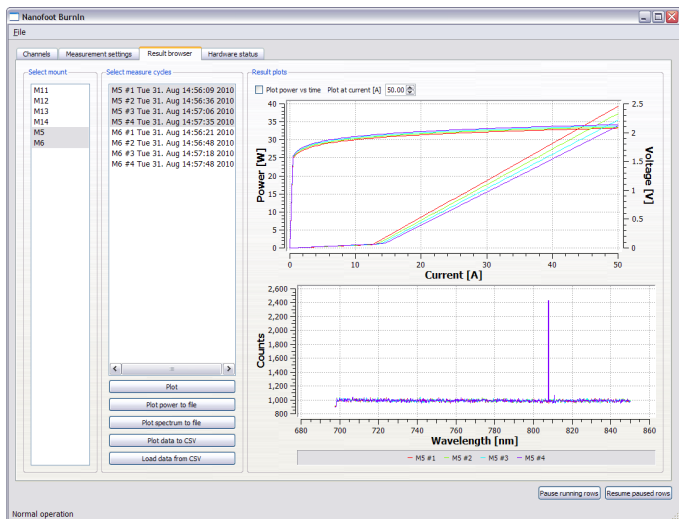


Fig 3: Result browser demonstrating selective plotting capabilities.