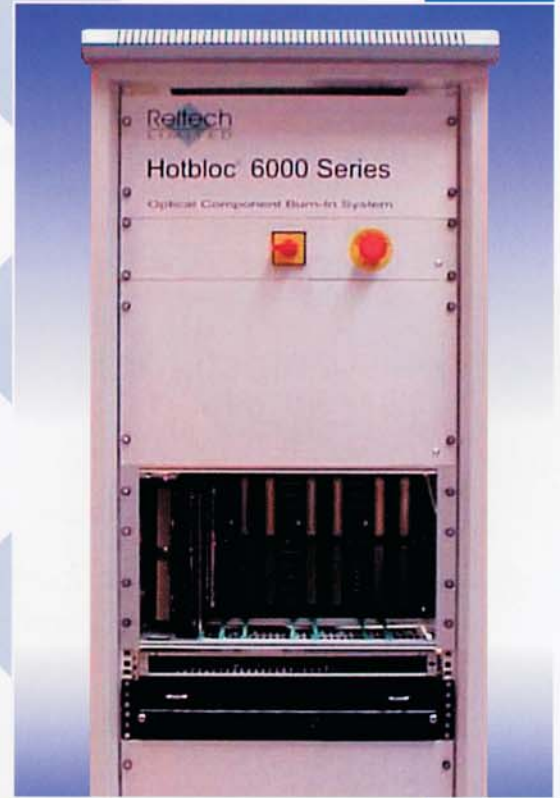


Hotbloc[®] 6000 series

BURN-IN AND RELIABILITY TEST SYSTEM

- ◆ The Reltech Limited 6000 series Hotbloc[®] System has been developed for the opto-electronic component industry and meets the increasingly demanding reliability testing challenges.
- ◆ The 6000 series Hotbloc[®] system utilises Peltier (TEC) technology to provide local heating to a single device or group of devices eliminating the need for a Burn-In Life Test Chamber. This approach provides very stable temperature zones, combining hot plate technology with "real time" temperature monitoring capability, results in a high level of temperature control and stability at the DUT.
- ◆ This technology also provides other benefits over traditional methods of life testing, as the devices are locally heated and controlled. As a result of this a lower ambient temperature around the device is achieved, making it possible to measure the light output from un-fibred DUT's in close proximity, using photo-detector devices, whilst eliminating the effects of extreme temperature on measured parameters.
- ◆ The computer-controlled system utilises the established MIDAS[®] Software for data acquisition, DUT monitoring and LIV characterisation.
- ◆ Chip On Carrier testing with the Hotbloc[®] system incorporates the Reltech Limited COC cassette DUT fixture technology. These precision engineered fixtures, provide reliable electrical connection to COC devices and help ensure excellent thermal stability at the device.
- ◆ Packaged devices also benefit from Hotbloc[®] technology. The excellent temperature stability at the device provide the conditions required to acquire accurate data used for performing vital Reliability and Life predictions.



Hotbloc[®] 6000 Series

◆ TYPICAL SYSTEM SPECIFICATION

◆ SYSTEM CONFIGURATION

- Standard 19" Equipment Rack
- Driver Card Loading
 - Driver Cards Mounted Vertically in rack (6U)
- Burn-In Modules
 - Burn In Modules can be produced to accept many different device types

◆ CUSTOM FIXTURING FOR CHIP ON CARRIER APPLICATIONS

- External Photo detection capability
 - 700nm – 1800nm wavelength capability
- Device Monitoring – Computer
 - Pentium PC hosting the MIDAS[®] software system
 - TFT Monitor allows user to view system status
 - PC is integral to the system
 - PSU's are rack mounted
 - PSU voltage set by system software interface
- Nitrogen purged test area

*Specifications subject to change without notice.
The specifications and details contained herein, do not form any part of a quotation or an agreement or contract.*

KEY FEATURES

HEATING SYSTEM – "HOTBLOC®"

- Hotbloc® using Peltier (TEC) technology
- Up to 384 DUT positions per system
- 12 Burn-In Modules per system
- 32 DUT's per Burn-In Module
- 12 Temperature Zones (TEC controlled plates) per system

TEMPERATURE CONTROL

- Local TEC control
- 16 Bit ADC measurements
- Monitored temperature
- Automatic control/adjustment

MULTI-CHANNEL DRIVER CARD

- Standard configuration to supply up to 32 drive channels
- Drive current up to 1.0A
- Drive resolution 0.01mA (higher optional)
- Drive accuracy of 0.1% ± 3 Bits (25uA)
- Max forward voltage typically 4V
- Constant Current Operation. (ACC)
- Constant Power Operation. (APC)
- Control of each laser for the purposes of LIV characterisation
- Devices Driven independently or in series chains

DUT POWER MONITORING

- Photo Detectors (PIN) devices are utilised to allow DUT light power monitoring and LIV characterisation. The DUT internal back facet diode is utilised for APC control feedback in the absence of an external photo-detector.

MONITORING SYSTEM AND MIDAS SOFTWARE SUITE MONITORING:

- Laser Diode Current (If)
- Laser Diode Voltage Vf
- Back Facet Diode current (I_{mon})
- Front Facet monitor power (P_o)
- Internal thermistor (if available)
- TEC current (I_{tec})
- Output Power
- Kink, Threshold and Slope Efficiency monitoring

DATA ACQUISITION

- Multiplexed data
- 16 Bit ADC measurement
- Software control
- MIDAS® Monitoring Functions:
 - Set device temperature
 - Test duration
 - Data Sample rate
 - Set-up control
 - Max/Min Current levels
 - Voltage Limits
 - Over Temperature shutdown
- PSU supply Voltage
 - Local Area Network (LAN) control
 - UPS System – Provides Soft system shutdown in the event of a power failure

CUSTOMER BENEFITS

- Unique Modular Concept
- High level of temperature Control
- Multi temperature zone system
- Minimal floor space compact system
- Cost effective high volume solution
- Multi device type testing
- High accuracy of DUT control and measurement
- Full test and characterisation in one system capability by:
 - Integration of Optical Test and Measurement Instrumentation
 - Clean room compatible

SYSTEM SERVICES

- Electrical Supply: Three Phase 240-420v AC 50/60Hz
- Dry Nitrogen

SYSTEM DIMENSIONS

- Height: 2050mm (max)
- Width: 650mm
- Depth: 700mm

Reltech

LIMITED

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Meeting Your Demands for Reliability Assurance