

# SSD "BIST" and Self Test System

## Supported Serial Interfaces

- UART 2.0, UART 3.0
- I<sup>2</sup>C
- JTAG
- SMBUS

## Supported Form Factors

- Edge Card  
FHFL, FHHL, HHFL, HHHL
- 1.8", 2.5"
- U.2 or SFF 8639
- mSATA
- M.2

## System Scalability

- SXBI-t  
Loader/Unloader Station  
Up to 64 Parallel DUTs
- SXBI-4t1z  
1-zone Burn-In Chamber  
Up to 256 Parallel DUTs
- SXBI-8t2z  
2-zone Burn-In Chamber  
Up to 512 Parallel DUTs
- SXBI-16t4z  
4-zone Burn-In Chamber  
Up to 1024 Parallel DUTs

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## Low-Cost Versatility

The SXBI is Neosem Technology's SSD Burn-In and Self Test system. Designed for SSD test from the ground up, the SXBI is optimized to meet the rapidly evolving requirements in the SSD market space. The SXBI's unique architecture enables the addition of new protocols as they emerge – and – the concurrent test of multiple protocols and DUT form factors within the same system. In addition to complete protocol testing, the SXBI also fully supports Out-of-Band testing requirements. This provides test engineers with the ability to drive standard and proprietary DUT control signals for features such as DevSlp, firmware downloads, and serial communications (i.e. SMBus, I2C, UART, etc).

## Maximum Scalability

Neosem engineered the SXBI for maximum scalability. The architecture's basic components (Core Processor Boards, Protocol Boards, and DUT Power Boards) are repeated to offer the broadest range of parallelism. System layout and infrastructure assures distributed processing, no bandwidth loss, and no signal fidelity loss when scaling from the smallest engineering station to the largest HVM environmental chamber. The SXBI economically scales from DUT counts as low as 4 DUTs to counts as high as 1024 DUTs.



# SXBI SSD BIST Self Test System

# NEOSEM

Ambient Burn-In or  
Functional Test



Burn-In or Functional  
Hot/Cold Test Chamber

Ambient Burn-In or  
Functional Test



Loader/Unloader Station



Test Board



Loader/Unloader Station

## Seamless High Volume Manufacturing Flow

Neosem Technology offers both proven, standardized solutions as well as custom integrated solutions. Neosem has worked with many of the Industry's handler companies to integrate Neosem hardware. Production chambers with integrated temperature control are combined with SXBI electronics to allow parallel testing of as many as 1024 DUTs at -40 to 85C. Neosem Technology environmental chamber configurations range from one to four independently controlled zones.

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Up to 1024 Parallel DUTs

## SXBI Specifications

Minimum Configuration	UP to 64 DUTs
Maximum Configuration	Up to 1024 DUTs
PMU	DUT Power Measurement Resources
Operating System	Windows 7
Test Application Development	C++
Input Power	120-240V AC – 50 to 60HZ
Operating Temperature Range	18 to 28C – Air cooled
Operating Humidity Range	30 to 70%

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