SANBlaze

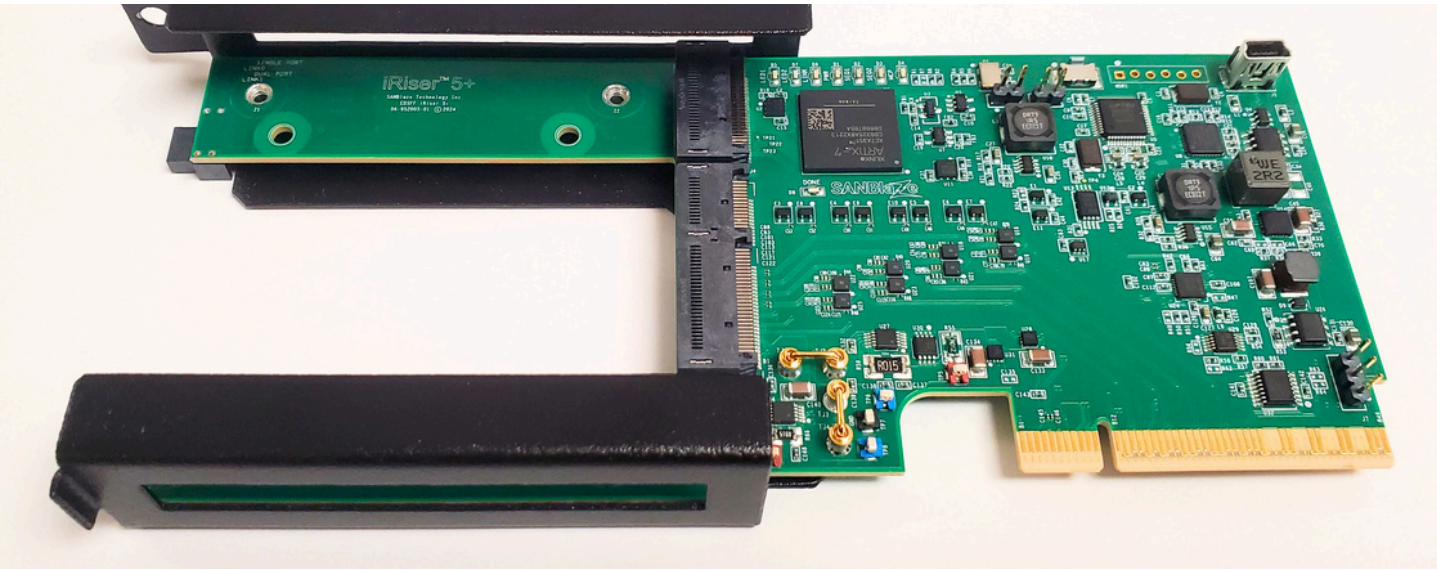
We Test NVMe over Everything™

NVMe over PCIe | NVMe-oF™ (Fiber Channel, TCP/IP, RoCE)

iRiser™5+ Data Sheet

Intelligent PCIe Gen5-to-EDSFF Riser for Precision Control

Unlock next-level testing capabilities with this patented precision test tool, engineered to amplify the power of SANBlaze SBExpress-RM5 & SBExpress-DT5 NVMe Test Systems



Overview

- Best-in-class PCIe Lane & Sideband Signal Glitching
- Ultra-Fast 3.3V & 12V Power Monitoring with 12-bit precision (up to 2.93uV/bit) - measurements up to ~500K samples per second*
- Ultra-Precise 3.3V & 12V Power Measurement with 20-bit precision (up to 78.125nV/bit) - measurements up to ~2900 samples per second**
- Precise Control of Power, Data Path & Sideband Signals – Enables User Development of Complex Device Test Scenarios & Real-World Failure Test Cases
- Integrates seamlessly with *Certified by SANBlaze* Test Suites, including: OCP, SPDM, VDM, SRIS/SRNS and more
- Enhances standards compliance testing by incorporating multiple device-level stress factors to further ensure PCIe and NVMe device design robustness
- Can be paired with an optional EDSFF-to-M.2 Adapter for iRiser5+, to enable additional test capabilities for M.2 form-factor devices at PCIe Gen5 speeds in RM5 & DT5 test platforms
- Ordering info: **SB-NVME-iRiser5+**

*actual maximum rate is 480,769 samples/second
**actual rate for 20-bit precision is 2,923 samples/second

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Features

The patented iRiser™5+ PCIe Gen5-to-EDSFF Intelligent Riser is a member of the iRiser™ family of precision SANBlaze NVMe test tools and is designed for use in RM5 & DT5 systems. It can monitor drive power at up to ~500K samples per second*, giving near real-time power response as drives come online and handle resets or power down.

Simple or complex Actions & Sequences can be defined & loaded from SANBlaze host systems.

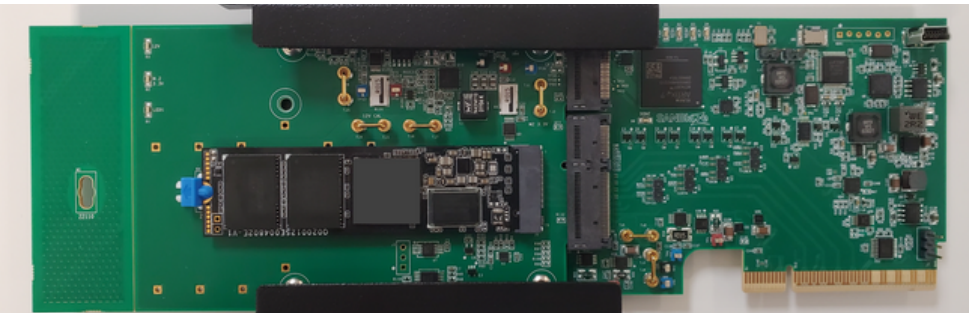
Signals under control are timed at an 80nS (nanoseconds) intervals, giving users ultimate control over complex testing scenarios, such as a drive reset at a specific time after power is asserted.

Gen5 PCIe lanes can be glitched allowing for intentional error injection. Software control of PCIe lanes can be utilized to create complex test scenarios, such as disabling one or all lanes connected to NVMe devices to verify design robustness to PCIe subsystem failures.

The SANBlaze iRiser5+ device also brings precision control of the Gen5 PCIe lanes in the data path from the NVMe device to the host, as well as out-of-band signals such as reset (PERST) and Power, allowing users to design tests specifically tailored to their testing needs.

When the iRiser 5+ is paired with an **optional 660 EDSFF-to-M.2 Adapter**, it enables additional test capabilities for M.2 form-factor devices at PCIe Gen5 speeds in RM5 & DT5 test platforms:

- Adds Ultra-Precise Power Monitoring for M.2 3.3V & 1.8V power rails - with 20-bit precision (up to 78.125nV/bit)
- Adds Voltage Margining capability of +/- 20% on M.2 3.3V power rail
- Provides access to all other iRiser5+ features for M.2 Devices, including:
  - Precise Control of Power, Data Path & Sideband Signals (CLKREQ, RESET, PERST, PLN/PLA)
  - Gen5 PCIe lane glitching
- Ordering info: **SB-NVME-EDSFFM2-GEN6**



SANBlaze iRiser5+ Device - shown with optional 660 EDSFF-to-M.2 Adapter & sample M.2 SSD installed

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Note: Both iRiser5+ & 660 M.2 Adapter require a minimum of SANBlaze V11.0 software support

Please contact SANBlaze for additional details on the iRiser5+ Intelligent Riser device, 660 EDSFF-to-M.2 Adapter, as well as any other questions on automated NVMe device & compliance testing.

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