

OakGate R350-G5-ULTRA Desktop Appliance for PCI Express® Gen5



Key Features

- PCI Express® 5.0 (PCIe Gen5) compatible
- Intel® Gen 5 Xeon® Processor
- 256GB DDR5 ECC system memory; expandable
- Fans are automatically controlled
- Up to 40W per slot at 35C
- Provides support for one 8-Bay Plug-in Module
- Ability to run unique tests on each SSD individually and concurrently
- Support for I3C (optional adapter)
- Individual power cycling and power measurement under software control:
 - Support for 3.3V, 3.3V aux, 5V and 12V
 - Power Sampling Rate of 250,000 per second (250Kz)
 - Dev sleep
 - Full Voltage Margining and Glitching
 - Voltage and current measurement for each port/device (+/-5 mV, +/- 50 uA)
 - Side-band signal monitor and control
 - Side-band signal glitching
 - SRNS/SRIS Spectrum Clocking Modes
- Chassis Dimensions: Approx. 17" W x 28" L x 5.2" H
- Powered by the SVF / Enduro v5.3+ software

The PCI Express® 5.0 OakGate R350-G5-ULTRA 3U Rackmount Appliance is a high-performance, enterprise level test system designed to test and debug solid state drives (SSDs) of all popular storage interfaces and protocols.

The R350-G5-ULTRA Appliance is ideal for medium to large test teams who need maximum performance and comprehensive power and sideband signal management feature support. The appliance has significantly better performance and performance per watt than the previous version.

The R350-G5-ULTRA Appliance includes a seamlessly integrated Power Management Card (PMC) that adds full voltage margining and glitching support. Customers no longer need to purchase 3rd-party power interposers which significantly reduces their overall total cost of ownership.

The R350-G5-ULTRA Appliance can connect up to one (1) optional OakGate 8-bay plug-in modules to test U.2, M.2, U.3, CEM, EDSFF E1.S or EDSFF E3.S/L SSDs.

The ULTRA 3U Rackmount Appliance is powered by the OakGate Storage Validation Framework (SVF) engine, the industry's most advanced storage-testing software.

The robust SVF software, now in its fifth generation, offers a comprehensive set of testing features and capabilities.

With the new power capability in SVF/Enduro SSD engineers can now analyze voltage and current over time and under stress to help improve SSD power consumption in their designs. The software includes voltage margining gauges, time voltage graphs and waveform previews.



SOFTWARE FEATURES



Advanced Features

Support for Security Protocol and Data Model (with SMBus, VDM, and DOE transports), Flexible Data Placement, Zoned Namespace, TCG, OCP 1.0a/2.0, SR-IOV, Controller Memory Buffer, Host Memory Buffer, and Persistent Memory.



Enhanced Power Management

Support for full voltage margining (+20%) and glitching. High speed sampling (250KHz) of voltage and current measurements with resolution of (+/- 5 milli-volts) and (+/- 50 micro-amps) respectively.



Sideband Signals

Sideband control for REFCLK#, PERST#, PWRDIS#, DUALPRTEN#, WAKE#, SMBRST#, SUSCLK#, and Amber LED

Sideband monitor CLKREQ#

Support for SRNS/SRIS Spectrum Clocking Modes



Protocol Support

Enjoy the satisfaction of having built-in support for the storage industry's most popular and emerging protocols.



Traffic Generation

Easily generate high-performance, randomized traffic profiles with I/O profiles. Includes support for Zoned Namespace.



Protocol Analyzer

Effectively debug and analyze from early prototype bring-up through long-term I/O testing using the embedded protocol analyzer.



Protocol Conformance / Directed Tests

Execute hundreds of built-in conformance tests that evaluate a device against its protocol or create your own for maximum flexibility and control.



Error Injection

Inject error conditions to see how the DUT behaves in real-life situations.



Peripheral Control and Power Management

Test your product's true limits with our industry-leading multi-vendor support for peripheral control and power management.



Point and Click Automation

Create full automation suites without writing a single line of code using our integrated test automation tool.



Performance Benchmarking

Deliver consistent benchmarking results, measure the true performance of the device under test, and generate a suite of performance analytics.



Data Validation

Build confidence that your device behaves as intended and unconditionally keeps data intact, even under the most stressful power-loss situations.



Customization through APIs and SDKs

Integrate OakGate into your existing automation framework by utilizing our RESTful web services, command line interface (CLI) or C-based API.

Ordering Information

Product Description

OakGate Gen5 R350 ULTRA 3U Rackmount Appliance

Product Code

OGT-R350-G5-ULTRA

Compatible M-Series 8-Bay Modules

Supports up to eight Add-In Card (AIC) NVMe drives

Supports up to eight single or dual-port E3 S/L Short or Long NVMe drives / Single/Dual-Port Mode

Supports up to four single or dual-port 25mm E1 Short NVMe drives / Single/Dual-Port Mode

Supports up to eight single or dual-port E1 Short NVMe drives / Single/Dual-Port Mode

Supports up to eight U.2 single or dual port 2.5-inch NVMe drives / Single/Dual-Port Mode

Supports up to eight, U.3 single-port, 2.5-inch NVMe drives

Supports up to eight, U.3 dual-port, 2.5-inch NVMe drives

Supports up to eight M.2 Drives

OGT-MCEM-800-G5

OGT-ME3S-800-G5

OGT-MES25-400-G5

OGT-MES-800-G5

OGT-MU2-800-G5

OGT-MU3-801-G5

OGT-MU3-802-G5

OGT-MM2-800-G5



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