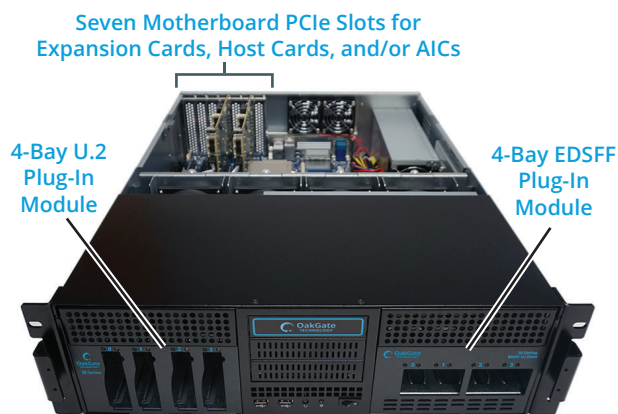


# OakGate R-Series 3U Rackmount Appliance for PCIe Gen4

**OGT-R300-G4**

The OakGate R-Series 3U Rackmount Appliance for PCIe Gen4 is a robust, versatile test system designed to test and debug solid state drives (SSDs) of all popular storage interfaces and protocols, such as PCIe, SAS, and SATA. As the name implies, the 3U Rackmount Appliance fits in a standard 19-inch rack enclosure at a 3U height.

This appliance is designed to meet the demands for high-density scaling with its seven motherboard PCIe slots (four Gen4 x16, one Gen4 x8, and two shared Gen3 (two at x8 and x8 or two at x16 and x0)). These slots can be used as expansion slots to connect to a variety of external enclosures, such as the OakGate 12-bay enclosures that test U.2, U.3, or EDSFF 1U SSDs. The slots can also be used for "in-appliance" testing, such as testing NVMe add-in cards or connecting to the optional OakGate 4-bay plug-in modules to test U.2, U.3, or EDSFF 1U short SSDs. Figure 2 shows the appliance equipped with an OakGate 4-Bay U.2 Plug-In Module and OakGate 4-Bay EDSFF 1U Short Plug-In Module to test U.2 and EDSFF 1U short SSDs, respectively.



**Figure 2. 3U Rackmount Appliance with 4-Bay Modules**

The 3U Rackmount Appliance is powered by the OakGate Storage Validation Framework Pro (SVF Pro) engine, the industry's most advanced storage-testing software. The robust SVF Pro software, now in its fourth generation, offers a comprehensive set of testing features and capabilities.



**Figure 1. 3U Rackmount Appliance for PCIe Gen4**

## FEATURES

- Powered by the SVF Pro / Enduro software
- PCI Express® 4.0 (PCIe Gen4) compatible
- AMD EPYC™ 7402P, 24 Core Processor, single-socket, 2.8 GHz
- 64GB DDR4 ECC system memory (up to 512GB)
- Seven motherboard PCIe slots:
  - Four PCIe Gen4 x16 (slots 3, 4, 6, and 7)
  - One PCIe Gen4 x8 (slot 5)
  - One PCIe Gen3 x8 or x0 (slot 2)<sup>†</sup>
  - One PCIe Gen3 x8 or x16 (slot 1)<sup>†</sup>
- † Slots 2 and 1 are shared, such that slots 2 and 1 can be x8 and x8, respectively, or x0 and x16, respectively.
- Provides support for up to two 4-bay plug-in modules for testing U.2, U.3, or EDSFF 1U short SSDs
- Ability to run unique tests on each SSD individually and concurrently
- Individual power cycling and power measurement under software control:
  - Support 3.3V, 5V, and 12V
  - Power on/off to each port/device
  - Voltage and current measurement for each port/device (at a sample rate of approximately one read per second)
  - Power measurement under various low power states (at a sample rate of approximately one read per second)
- Chassis Dimensions: ~ 19" W × 26" L × 5.5" H

## APPLIANCE CONFIGURATION EXAMPLE

The following figure shows a configuration for testing up to sixteen dual-port NVMe SSDs that use a U.2 (SFF-8639) connector. It shows the client, with the Enduro controller application and SVF Pro, directing the 3U rackmount appliance for PCIe Gen4 (OGT-R300-G4), which is connected to a 12-bay dual-port NVMe U.2 enclosure for PCIe Gen4 (OGT-EU12P-02-G4) for testing 12 U.2 SSDs. Since this appliance is equipped with a 4-bay U.2 module (OGT-MU402R-G4), up to four additional U.2 SSDs may also tested.

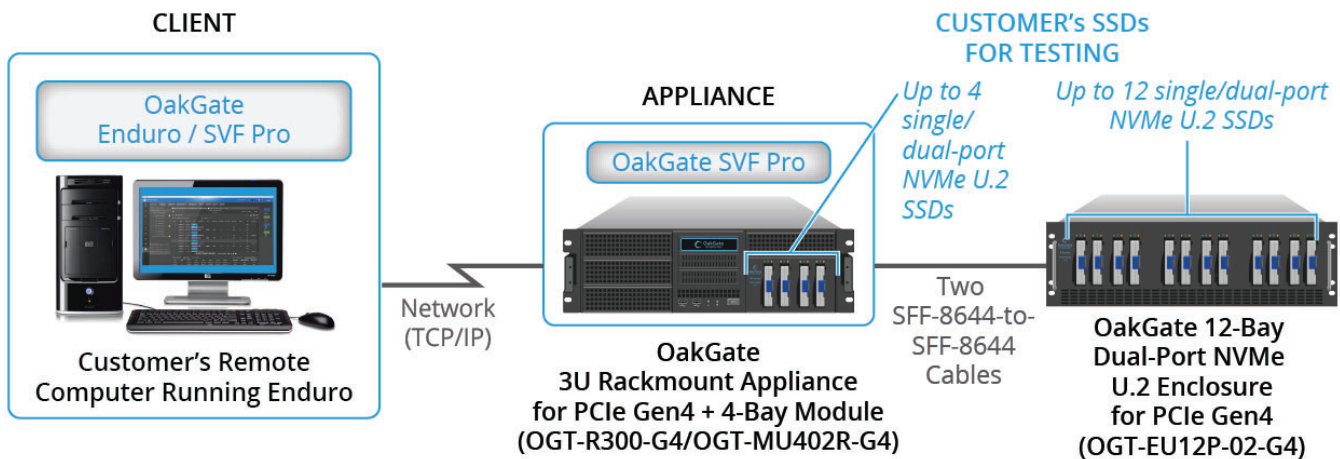


Figure 3. OGT-R300-G4 Configuration for Testing 16 Dual-port NVMe SSDs

## ORDERING INFORMATION

PRODUCT DESCRIPTION	MODEL NUMBER
<b>R-SERIES APPLIANCE</b>	
3U Rackmount Appliance for PCIe Gen4	OGT-R300-G4
<b>COMPATIBLE M-SERIES MODULES</b>	
4-Bay U.2 Plug-In Modules for PCIe Gen4 (Single-Port NVMe, Dual-Port NVMe, or Multi-protocol)	OGT-MU40x-G4 <sup>1</sup>
4-Bay U.3 Plug-In Modules for PCIe Gen4 (Single-Port NVMe or Dual-Port NVMe)	OGT-MU3-40x-G4 <sup>1</sup>
4-Bay EDSFF Plug-In Modules for PCIe Gen4 (Single-Port NVMe or Dual-Port NVMe)	OGT-MES40x-G4 <sup>1</sup>
<b>COMPATIBLE A-SERIES ADD-ONS</b>	
12G SAS/6G SATA Host Bus Adapter with Eight Ports	OGT-AH101
8GB ECC System Memory	OGT-AM-108
<b>COMPATIBLE E-SERIES U.2 ENCLOSURES for 2.5" SSDs</b>	
12-Bay U.2 Enclosures for PCIe Gen4 (NVMe, SAS/SATA, or Multi-protocol)	OGT-EU12y-0z-G4 <sup>2</sup>
12-Bay U.3 Enclosures for PCIe Gen4 (Single-Port NVMe or Dual-Port NVMe)	OGT-EU3-12P-0z-G4 <sup>2</sup>
12-Bay EDSFF 1U Long Enclosures for PCIe Gen4 (Single-Port NVMe or Dual-Port NVMe)	OGT-EDL12P-0z-G4 <sup>2</sup>
12-Bay EDSFF 1U Short Enclosures for PCIe Gen4 (Single-Port NVMe or Dual-Port NVMe)	OGT-EDS12P-0z-G4 <sup>2</sup>

1 x = 1 (single-port NVMe), 2 (dual-port NVMe), or 3 (multi-protocol); and R (right compartment of appliance) or L (left compartment of appliance)

2 y = S (SAS/SATA), P (NVMe), or M (multi-protocol); z = 1 (single-port NVMe or single/dual port SAS/SATA) or 2 (dual-port NVMe)

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