

M-Series 4-Bay U.2 Plug-In Modules for PCIe Gen4

When installed in an OakGate expandable desktop or 3U rackmount appliance, the M-Series 4-Bay U.2 Plug-In Module for PCIe Gen4 provides a simple, flexible way to test and debug up to four mixed-protocol solid state drives (SSDs) that use a U.2 (SFF-8639) connector. One module can be installed in the front compartment of an expandable desktop, and up to two in the front left and right compartments of the 3U rackmount appliance.

The OakGate Enduro controller application and Storage Validation Framework Pro (SVF Pro) software, supplied with the appliance, can exercise each SSD individually, as well as provide built-in power cycling and power measurement capabilities.

OGT-MU401E-G4, OGT-MU402E-G4, OGT-MU403E-G4, OGT-MU401L-G4, OGT-MU402L-G4, OGT-MU403L-G4, OGT-MU401R-G4, OGT-MU402R-G4, OGT-MU403R-G4

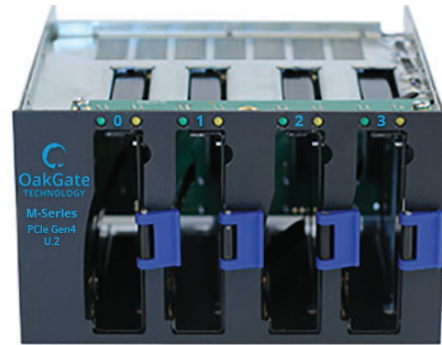


Figure 1. 4-Bay U.2 Plug-In Module for PCIe Gen4



Figure 2. Expandable Desktop Appliance with a 4-Bay U.2 Plug-In Module Installed

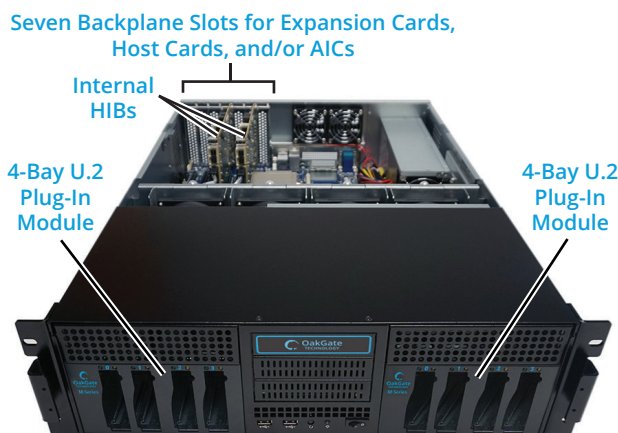

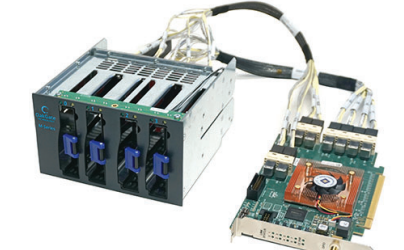
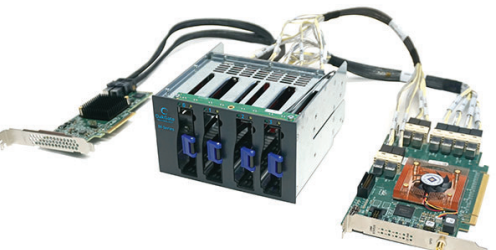


Figure 3. 3U Rackmount Appliance with Two 4-Bay Single/Dual-Port NVMe U.2 Plug-In Modules Installed

FEATURES

- PCI Express® 4.0 (PCIe Gen4) compatible
- Supported protocols include: NVMe, NVMe-MI (standard and basic), SAS, SATA, and AHCI
- Ability to run unique tests on each device individually and concurrently
- Individual power cycling and power measurement under software control:
 - Configurable to support 3.3V, 5V, and 12V
 - Ability to turn power on/off to each port/device
 - Ability to measure voltage and current for each port/device (at a sample rate of approximately one read/second)
 - Ability to measure power under various low power states (at a sample rate of approximately one read/second)
- LED indicators: power (green) and activity (amber) on front of module; CPU heartbeat and dual-port PCIe on inside of module
- Allows easy access to the device diagnostic port if it is located on the front side of the module
- Simple, tool-less device replacement
- Can be installed in an existing appliance, or ordered pre-installed

4-BAY U.2 PLUG-IN MODULE TYPES

4-Bay Single-Port NVMe U.2 Plug-In Module for PCIe Gen4 (OGT-MU401x-G4) ¹	4-Bay Single/Dual-Port NVMe U.2 Plug-In Module for PCIe Gen4 (OGT-MU402x-G4) ¹	4-Bay Multi-Protocol U.2 Plug-In Module for PCIe Gen4 (OGT-MU403x-G4) ¹
		
<p>Accommodates up to four single-port NVMe SSDs</p>	<p>Accommodates up to four single/dual-port NVMe SSDs</p>	<p>Accommodates up to four single/dual-port NVMe, 12G SAS, and 6G SATA SSDs</p>
<p>Includes:</p> <ul style="list-style-type: none"> • 4-bay U.2 plug-in module • Four device carriers • Internal host interface board (HIB) (for NVMe SSD communication with the appliance) • SFF-8643 (4 connectors) to SFF-8643 (8 connectors) cable for host-to-module NVMe connections • One-year hardware/software support 	<p>Includes:</p> <ul style="list-style-type: none"> • 4-bay U.2 plug-in module • Four device carriers • Internal HIB for NVMe SSD communication with the appliance • SFF-8643 (4 connectors) to SFF-8643 (8 connectors) cable for host-to-module NVMe connections • SFF-8643 (4 connectors) to staggered SFF-8643 (4 connectors) cable for host-to-module dual-port NVMe connections • One-year hardware/software support 	<p>Includes:</p> <ul style="list-style-type: none"> • 4-bay U.2 plug-in module • Four device carriers • Internal HIB (for NVMe SSD communication with the appliance) • SFF-8643 (4 connectors) to SFF-8643 (8 connectors) cable for host-to-module NVMe connections • SFF-8643 (4 connectors) to staggered SFF-8643 (4 connectors) cable for host-to-module dual-port NVMe connections • SAS/SATA host card (for SAS/SATA SSD communication with the appliance) • Two SFF-8643 connector to SFF-8643 connector cables for host-to-module SAS/SATA connections • One-year hardware/software support

ORDERING INFORMATION

PRODUCT DESCRIPTION	MODEL NUMBER
M-SERIES 4-BAY U.2 PLUG-IN MODULES for PCIE GEN4	
4-Bay Single-Port NVMe U.2 Plug-In Module for PCIe Gen4	OGT-MU401x-G4 ¹
4-Bay Dual-Port NVMe U.2 Plug-In Module for PCIe Gen4	OGT-MU402x-G4 ¹
4-Bay Multi-Protocol U.2 Plug-In Module for PCIe Gen4	OGT-MU403x-G4 ¹
COMPATIBLE D-SERIES and R-SERIES APPLIANCES	
Expandable Desktop Appliance for PCIe Gen4	OGT-DE100-G4
3U Rackmount Appliance for PCIe Gen4	OGT-R300-G4
COMPATIBLE A-SERIES ADD-ONS	
PCIe Power Interposer Card for some appliances and enclosures	OGT-AP100

¹ x = R (in right compartment of 3U rackmount appliance), L (in left compartment of 3U rackmount appliance), or E (in expandable desktop appliance)
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