

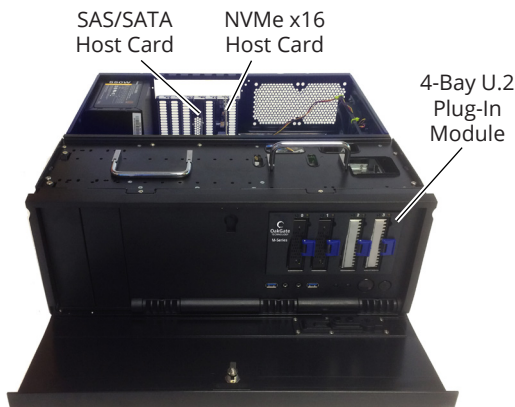
# M-Series 4-Bay U.2 Plug-In Modules

OGT-MU401, OGT-MU402, OGT-MU403

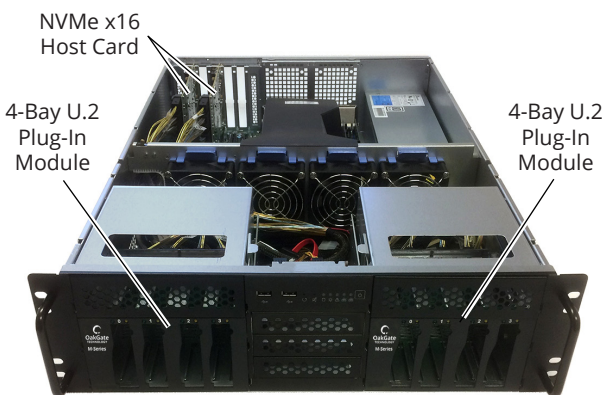
The M-Series 4-Bay U.2 Plug-In Modules provide a simple, flexible way to test mixed-protocol SSDs within an OakGate expandable desktop or 3U rackmount appliance. The 4-bay module resides in the front compartment of the OakGate appliance and allows testing of up to four SSDs that use a U.2 (SFF-8639) connector. 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.



**Figure 1. Front View of the 4-Bay U.2 Plug-In Module**



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




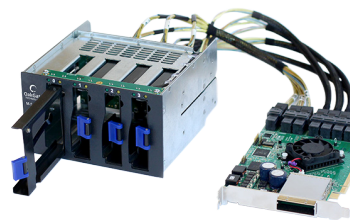
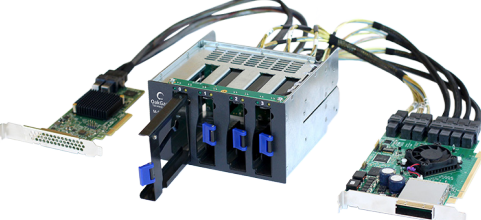
**Figure 3. 3U Rackmount Appliance with Two 4-Bay Single/Dual-Port NVMe U.2 Plug-In Modules Installed**

(One or two modules can be installed in a 3U rackmount appliance)

## FEATURES

- 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 this port is located on the front-side (opposite of the U.2 connector)
- Simple, tool-less device replacement
- Can be installed in an existing appliance, or ordered pre-installed

## 4-BAY U.2 PLUG-IN MODULES

4-Bay Single-Port NVMe U.2 Plug-In Module (OGT-MU401)	4-Bay Single/Dual-Port NVMe U.2 Plug-In Module (OGT-MU402)	4-Bay Multi-Protocol U.2 Plug-In Module (OGT-MU403)
		
<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 (in any combination)</p>
<p>Includes:</p> <ul style="list-style-type: none"> <li>• 4-bay U.2 plug-in module</li> <li>• Four device carriers</li> <li>• NVMe x16 host card (for PCIe communication with the appliance)</li> <li>• Four SFF-8643 PCIe Y cables (for single-port PCIe x4 connection)</li> <li>• One-year hardware/software support</li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• 4-bay U.2 plug-in module</li> <li>• Four device carriers</li> <li>• NVMe x16 host card (for PCIe communication with the appliance)</li> <li>• Four SFF-8643 PCIe Y cables and one SFF-8643 PCIe 3-4 cable (for single/dual-port PCIe x2 connection)</li> <li>• One-year hardware/software support</li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>• 4-bay U.2 plug-in module</li> <li>• Four device carriers</li> <li>• NVMe x16 host card (for PCIe communication with the appliance)</li> <li>• Four SFF-8643 PCIe Y cables and one SFF-8643 PCIe 3-4 cable (for single/dual-port PCIe x2 connection)</li> <li>• SAS/SATA Host Card (for SAS/SATA communication with the appliance)</li> <li>• Two SAS/SATA port cables (for single/dual-port SAS/SATA connection)</li> <li>• One-year hardware/software support</li> </ul>

## ORDERING INFORMATION

PRODUCT DESCRIPTION	MODEL NUMBER
<b>M-SERIES 4-BAY U.2 PLUG-IN MODULES</b>	
4-Bay Single-Port NVMe U.2 Plug-In Module	OGT-MU401
4-Bay Dual-Port NVMe U.2 Plug-In Module	OGT-MU402
4-Bay Multi-Protocol U.2 Plug-In Module	OGT-MU403
<b>COMPATIBLE D-SERIES and R-SERIES APPLIANCES</b>	
Expandable Desktop Appliance	OGT-DE100
3U Rackmount Appliance	OGT-R300
<b>COMPATIBLE A-SERIES ADD-ONS</b>	
PCIe Power Interposer Card for some appliances and enclosures	OGT-AP100

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