

## GigaIO FabreX AIC Resource Box - Disaggregated Compute Accelerator for Deep Learning and HPC



The GigaIO™ Add-in-Card (AIC) Resource Box is a rack-mount, disaggregated compute accelerator with space for up to 10 PCIe Gen 3.0 x16 accelerator cards. This flexible expansion platform enables you to add numerous PCIe Gen 3.0 application accelerators, including GPUs, FPGAs, IPUs, thin-NVMe-servers and specialty AI chips. Configure the AICs for different workloads to quickly scale your applications. Two PCIe x16 lanes provide connections to the FabreX™ switch for maximum flexibility with disaggregation and dynamic composability of AIC devices.

The Resource Box includes three fans for cooling of high-capacity GPU systems.

### FEATURES

- 4U rack-mount design
- Configurable AIC slots
- PCIe Gen 3.0 host links – x16 link delivers 128 Gbit/sec half-duplex or 256 Gbit/sec full-duplex throughput
- Thermostatic fan controls
- Single or redundant power options

### Specifications

|                              |   |
|------------------------------|---|
| <b>Enclosure</b>             | 19" W x 18.5" D x 7" H (4U)<br>Supports up to 10 total full-height, full-length PCIe slots, or 8 double wide GPUs<br>Supports extended height cards and top GPU power cables<br>Power and fan status bi-color LED panel   |
| <b>Cables</b>                | Connect to the FabreX Adapter Card with Copper or Active Optical Cable  |
| <b>Cooling</b>               | Three 120mm x 38mm fans mounted to the front bezel of the chassis<br>Two standard fan options, perfect for GPU or FPGA accelerator<br>High-capacity, variable speed (PWM) Fans: <ul style="list-style-type: none"> <li>• Three 180CFM fixed-speed fans with tachometer monitoring via front panel LED</li> </ul>  |
| <b>Power</b>                 | Several options for the 10-slots available for expansion. The supplies are mounted inside the back panel of the chassis:<br>Redundant Power: <ul style="list-style-type: none"> <li>• Dual redundant 1000-2000W 80Plus Platinum supply shared among all backplanes in the enclosure</li> </ul> Split Power: <ul style="list-style-type: none"> <li>• Dual 1620W 80Plus Platinum supply for use with 2 separate backplanes zones</li> </ul> Aux Power: <ul style="list-style-type: none"> <li>• Up to 8 EPS12V 8-pin 12V aux power cables</li> </ul> |
| <b>Operating Environment</b> | 0 to 35°C, 10 to 90% relative humidity, 0 to 10,000 feet above sea level<br>Storage Environment -40 to 85°C, 5 to 96% relative humidity, 0 to 50,000 feet above sea level   |

# GigaIO FabreX U.2 Flash Array - Disaggregated NVMe SSD Storage



The GigaIO Flash Array is a 2U rack-mounted NVMe storage enclosure. It can include 1+1 redundant canisters, up to 24 2.5" NVMe SSD drives, and 1+1 redundant 900W 80 Plus Platinum PSUs, to provide high throughput, low latency, resource sharing and high availability.

This U.2 JBOF (Just a Bunch of Flash) array delivers the next level of storage capacity, performance, and flexibility through disaggregation with the GigaIO FabreX Switch. PCIe Gen 3.0 x16 connectors operating at 128 Gbit/sec bandwidth can connect the array to one or more host computers. This JBOF is a perfect addition to any high-workload applications such as AI, data analytics and HPC.

## FEATURES

- Up to 24 U2 dual-ported SSD drives
- One or two rear panel PCIe Gen 3.0 host (upstream) links – x16 link delivers 128 Gbit/sec half-duplex or 256 Gbit/sec full-duplex throughput
- One or two rear panel PCIe Gen 3.0 target (downstream) links – for additional JBOF connectivity
- Intelligent enclosure management
- Self-discovery and self-configuration
- Hot swap design for easy maintenance
- Single or redundant power options

## Specifications

|                              |   |
|------------------------------|---|
| <b>Enclosure</b>             | 2U rack-mounted NVMe storage enclosure which supports 24 NVMe SSDs.<br>17.5" W x 21" D (446 x 536mm)  |
| <b>NVMe Drive</b>            | Front access NVMe drive<br>Support 24 2.5" dual-ported NVMe SSDs<br>Individual power control  |
| <b>Canister</b>              | 1+1 redundant<br>Support 8 mini SAS HD 4X ports for external connectivity<br>PCIe Gen 3 NVMe SSDs and 8 mini SAS HD 4x ports  |
| <b>Cables</b>                | Connect JBOF to FabreX Switches and Adapter Cards with copper or Active Optical Cable   |
| <b>Cooling</b>               | Four 132CFM fans (removable)  |
| <b>Power</b>                 | 900W, 1+1 redundant<br>Hot-pluggable from rear of chassis<br>System input: 89 to 264Vac<br>High efficiency (80Plus Platinum Level)<br>Integrated fans for PSU and Canister cooling controlled by internal microcontroller<br>Support N+1 fan failure                                    |
| <b>Operating Environment</b> | 1 to 35°C 10 to 90% relative humidity 0 to 10,000 feet above sea level<br>Storage Environment -40 to 85°C, 5 to 96% relative humidity 0 to 50,000 feet above sea level<br>Ambient Temperature 5 to 40°C<br>Max Temperature Gradient 20°C per hour<br>Ambient Non-Operating -40 to 60 °C |
| <b>Humidity</b>              | Ambient Operating (Non-condensing) 8 to 85% R.H<br>Ambient Non-Operating (Non-condensing) 8 to 95% R.H  |