

PRODUCT BRIEF



RapidFlex™ A1000 NVMe-oF™ ASIC Device

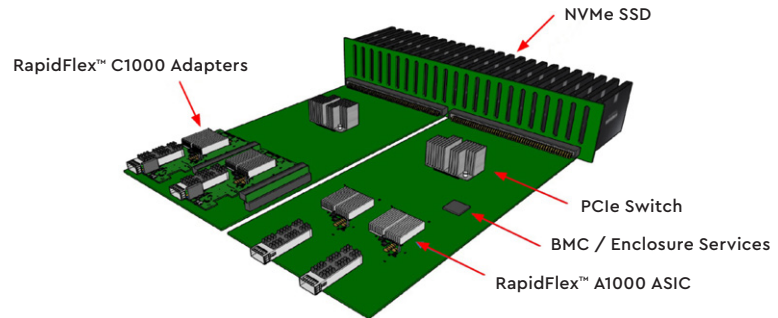
Western Digital's RapidFlex™ A1000 NVMe-oF™ ASIC device is a cutting-edge solution which enables NVMe™ over Fabrics (NVMe-oF) attached storage systems. It forms a key component for the enablement of the industry's newest Composable Disaggregated Infrastructures, providing exceptional performance and extremely low power consumption.

A data center architecture, based on Composable Disaggregated Infrastructure (CDI), enables more efficient utilization by allowing precise allocation of resources, and minimizing stranded and underutilized devices. By creating physically separated pools of resources, and using NVMe-oF technology to dynamically compose virtual systems, many of today's challenges can be better optimized as the scale of data centers continues to expand.

By upgrading an existing JBOF to one that is Ethernet attached (EBOF), significantly larger scales of Composable Infrastructure are enabled.

Feature Highlights

- 100 Gb Ethernet Interface, or 2 × 50 Gb, 2 × 25 Gb
- Single x16 Gen3, or Dual x8 Gen3 PCIe Interface to PCIe switch(es)
- Support of RoCEv1 and RoCEv2
- 21 mm BGA Package
- No DRAM Required
- 7W Nominal Power
- Lossy networks supported on all protocols
- Fully hardware-accelerated datapaths mean an extremely low-cost, low-power solution with exceptional performance



Ordering Information

ASIC OPN:	KN-103-A0
ASIC MOQ:	300 parts
ASIC UOM:	300 units (Must be ordered in multiples of 300)
Leadtime:	16 weeks
ECCN (Fuji):	4A994.j
HTC:	8542.31.0001

RapidFlex A1000-based EBOF (Ethernet-attached Bunch of Flash)

Western Digital's RapidFlex A1000 represents a unique approach to RapidFlex-based JBOF, based on extensive levels of hardware acceleration. This architecture removes firmware from the performance path, allowing Read and Write I/Os to flow through the bridge ASIC with minimal latency.

Western Digital developed a highly optimized solution that enables development of storage systems based on the NVMe-oF standard. Combined with a PCIe switch and building upon the existing enclosure management, an extremely low-cost and low-power JBOF is enabled.

