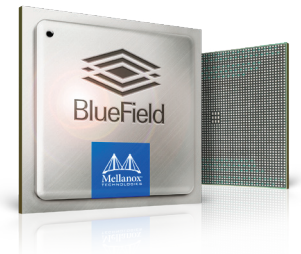


Pre-BlueField™ Development Platform



The BlueField family of products is a highly integrated system on a chip, optimized for NVMe storage systems, network processing applications, GPU and deep learning applications, security systems, and embedded appliances. BlueField integrates the Mellanox ConnectX®-5 network controller and ARM CPUs into a single device. BlueField users can leverage the InfiniBand, Ethernet and ARM ecosystems and software from the open communities, for greater market reach and business opportunities.



The Pre-Bluefield Development Platform provides a pre-release software and hardware environment to develop multiple BlueField SoC applications, such as NVMe target, prior to BlueField availability. It enables early software development and basic application performance profiling.

Components

The evaluation kit includes an ARMv8-based server, Mellanox ConnectX-4 and ConnectX-5 Ethernet adapters, and a PCIe switch that emulates the BlueField SoC switch and is required for SSD support with peer-to-peer NVMe control traffic.

Development Platform Software Bundles

There are two packages available for a Linux software bundle, one that supports NVMe and one non-NVMe package.

Package 1: Mellanox OFED for NVMe

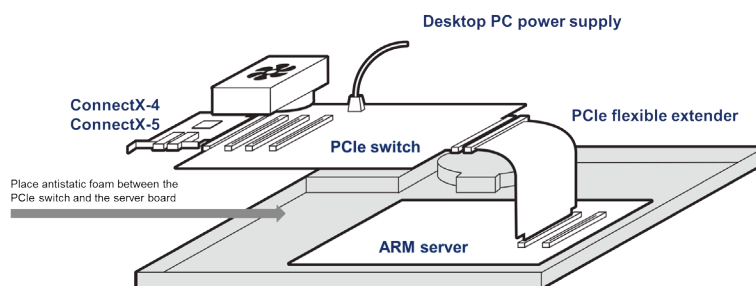
- Custom upstream kernel with NVMe drivers (available from gitlab/nvme project)
- Mellanox OFED BlueField installation
 - Erasure Coding and other Mellanox features
 - NVMe drivers properly compiled for MLNX-OFED

Package 2: Non-NVMe

- Non-NVMe
- Pre-installed OpenSUSE kernel
- MLNX-OFED

| Ordering Part Number | Description |
|----------------------|---|
| PRE-BLUEFIELD-DPKIT | Contains ARMv8 server, PCIe switch board, ConnectX-4, PCIe cabling, power supply, fan |

Pre-BlueField Development Platform Elements and Interconnect



Notes

The Pre-BlueField Development Platform currently includes ConnectX Ethernet adapters. For an InfiniBand-based kit, please contact your local sales representative.

The Linux distribution of the evaluation board might differ from the Pre-BlueField Development Platform, but the software development on the platform will run as-is on the evaluation board.