

NVMe IP core

Directly connect PCIe SSD without external memory!!

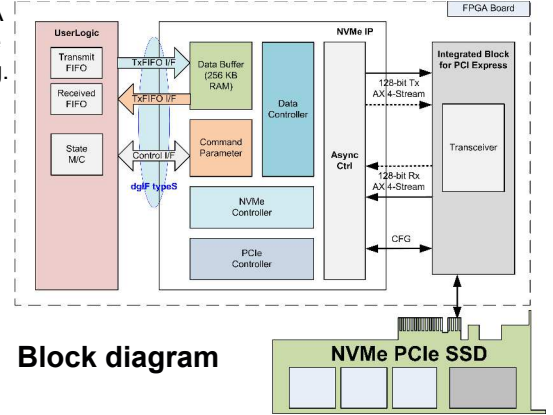
32Gbps
 Gen3 x4 Lane



Evaluation on KCU105 with Samsung SSD 960 Pro

NVMe IP core interfaces Ultra high-speed PCIe SSD without CPU and external memory. It is the best solution for applications which require ultra high-speed performance with compact system. The IP core license includes the reference design for Xilinx FPGA boards to shorten development time and reduce the cost.

Free evaluation bit files for Xilinx FPGA boards are available. You can evaluate IP core performance before purchasing.



Block diagram

Features

- Implement application layer to access PCIe SSD **without CPU and external memory**
- Support **PCIe Gen3**, theoretical upper limit 4GB/sec
- **Small resource**, the best solution for building a compact system
- **FAT32 access without CPU** * with optional FAT32-IP
- Support PLDA PCIe Gen3 Soft IP
- Free evaluation **before purchasing**

Reference Designs are available for practical applications

Easy to apply for high-end products such as ultra high-speed data recorder



2ch RAID

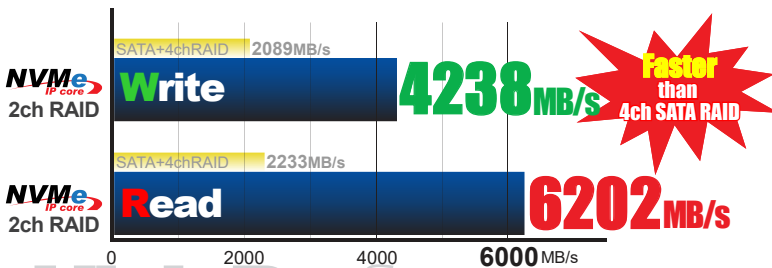


Linux driver

Suitable for high-speed data recording and stand-alone data analysis on SoC

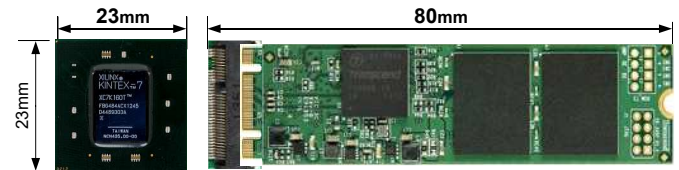
Performance/ Application

Able to build Gen3 PCIe SSD **2ch RAID** system!!



* SATA IP with Plextor PX-256M5S 4pcs
 * NVMe IP with Samsung 960Pro 2pcs

The best solution for **Compact Ultra High-speed storage system!!**



Kintex-7 (FBG484)
 NVMe IP+ user logic

M.2 SSD
 for data storage

System space image by 484pin FBG package FPGA with M.2 SSD

Product Line up

| IP core | |
|-----------------|--|
| NVMe-IP-VUP | 1 project Netlist License for Virtex®UltraScale+ |
| NVMe-IP-ZUP | 1 project Netlist License for Zynq®UltraScale+ |
| NVMe-IP-KU | 1 project Netlist License for Kintex®UltraScale |
| NVMe-IP-VT7 | 1 project Netlist License for Virtex®-7 |
| NVMe-IP-KT7 | 1 project Netlist License for Kintex®-7 |
| NVMe-IP-AT7 | 1 project Netlist License for Artix®-7 |
| NVMe-IP-ZQ7 | 1 project Netlist License for Zynq®-7000 |
| NVMe-IP-FAT32-X | FAT32 file system for NVMe-IP. Purchase with NVMe-IP core. |

Please ask us about Multi-License, Evaluation License and Maintenance support License.

Accessories for evaluation

| | |
|-----------------------|---|
| AB16-PCIeXOVER | PCIe Crossover Adapter board for NVMe IP evaluation |
| AB17-M2FMC | M.2-FMC adapter board for NVMe-IP evaluation Able to connect 2 NVMe SSDs. * SSD is not included. |

For more detail and technical information on our web site http://www.dgway.com/NVMe-IP_X_E.html



Designgateway IP core



IP core Evaluation Demo are available on youtube

