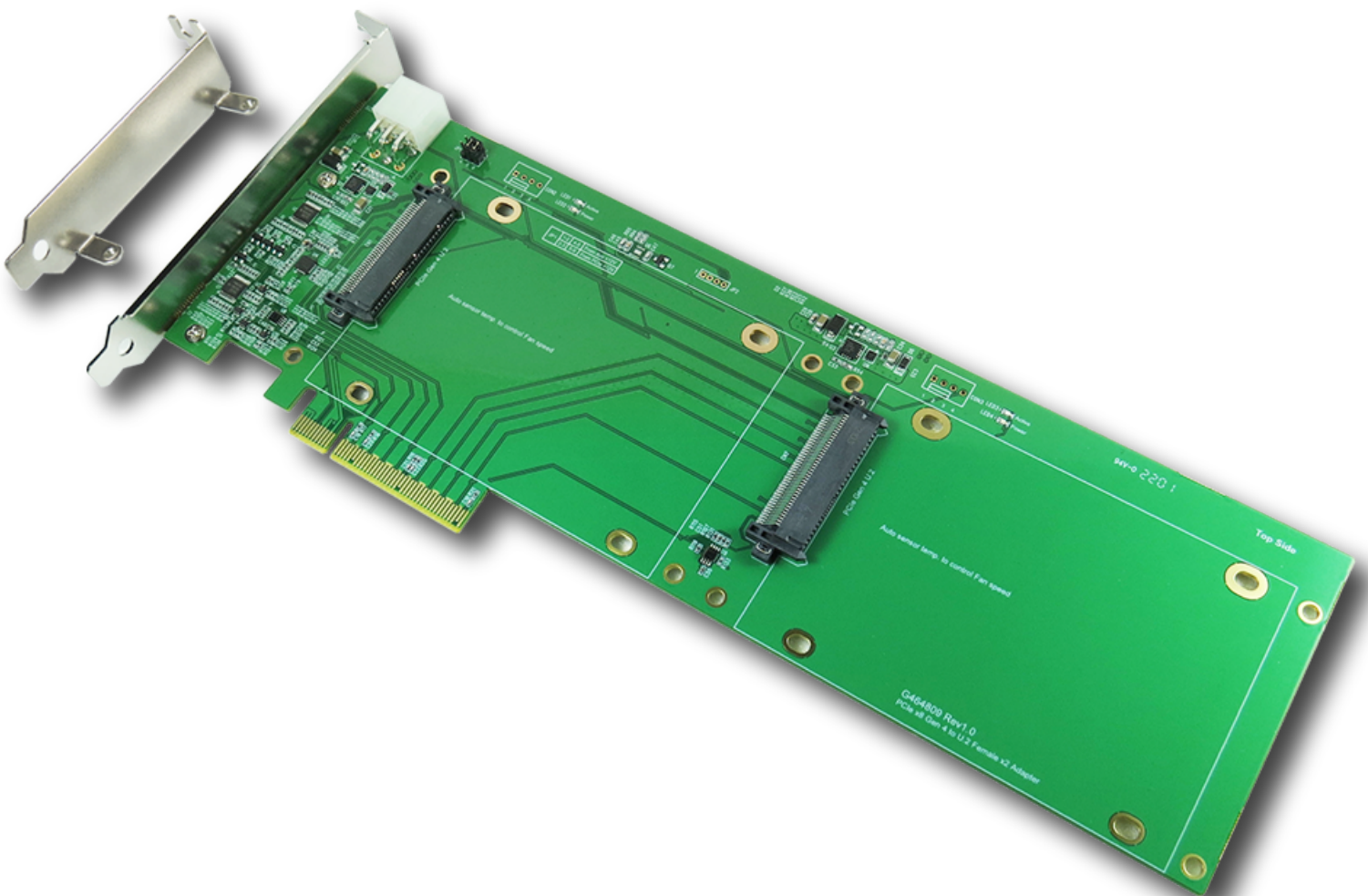


Innocard Minerva

DP8109

PCIe x8 Gen4 for bifurcated U.2 NVMe SSD Dual Port AIC



Notice:

The Mainboard with CPU and BIOS needs to support bifurcation to ensure PCIe x8 link width to bifurcate two x4 link width for U.2 NVMe SSD. If not, DP8109 Riser Card only supports PCIe x8 link width

PCIe x8 Gen4 for bifurcated U.2 NVMe SSD Dual Port AIC

Features

- ※ U.2 NVMe to PCI Express 4.0 convert
- ※ Built-in two U.2 SFF-8639 Females connector
- ※ The DP8109 can be offered in two x4 data link width configurations (need CPU and BIOS both support) for dual port U.2 SSD.
- ※ Supports power input from PCIe CEM +12V or external PCIe 2x3 12V AUX Power
- ※ Supports Server BMC & IPMI management application
- ※ Built-in SMBus Switch(Address: 0x71) for U.2 SSD SMBus, Clock buffer SMBus communication
- ※ Supports PCIe REFCLK Buffer fan out(Address: 0xD8) for U.2 dual port, it shall be buffered and fanned out to the individual U.2 SSD
- ※ Built-in SMBus I/O Expander(Address: 0x20) for Supports U.2 PWRDIS signals control
- ※ Supports PCIe PERST# for OOB(out of band) management to remote U.2 SSD Reset
- ※ Supports U.2 12V Power Rail for OOB(out of band) management to disable U.2 SSD Power
- ※ Built-in WAKE# Auto-Direction Sensing Between PCIe CEM and U.2 SSD
- ※ Built-in CLKREQ# Auto-Direction Sensing Between PCIe CEM and U.2 SSD
- ※ Built-in 12V Hot Plug Power controller with eFuse protection for each U.2 SSD
 - ◆ Programmable Current Limit: 6.5A
 - ◆ Programmable Inrush Current Slew Rate
 - ◆ Thermal shutdown protection and fault alert
 - ◆ Back-to-Back (B2B) FET Operation
- ※ Built-in 12V input with 400W TVS(TRANSIENT VOLTAGE SUPPRESSOR) ESD protection
- ※ Built-in 12V output with 30-V, N channel NexFET power MOSFET, 32 m ohm
- ※ Built-in 12V output with SCHOTTKY BARRIER Power Rectifier
- ※ LED1, LED3 Green LED Blinking indicates U.2 NVMe SSD access status
- ※ LED2, LED4 RED LED on indicates U.2 NVMe SSD power ready

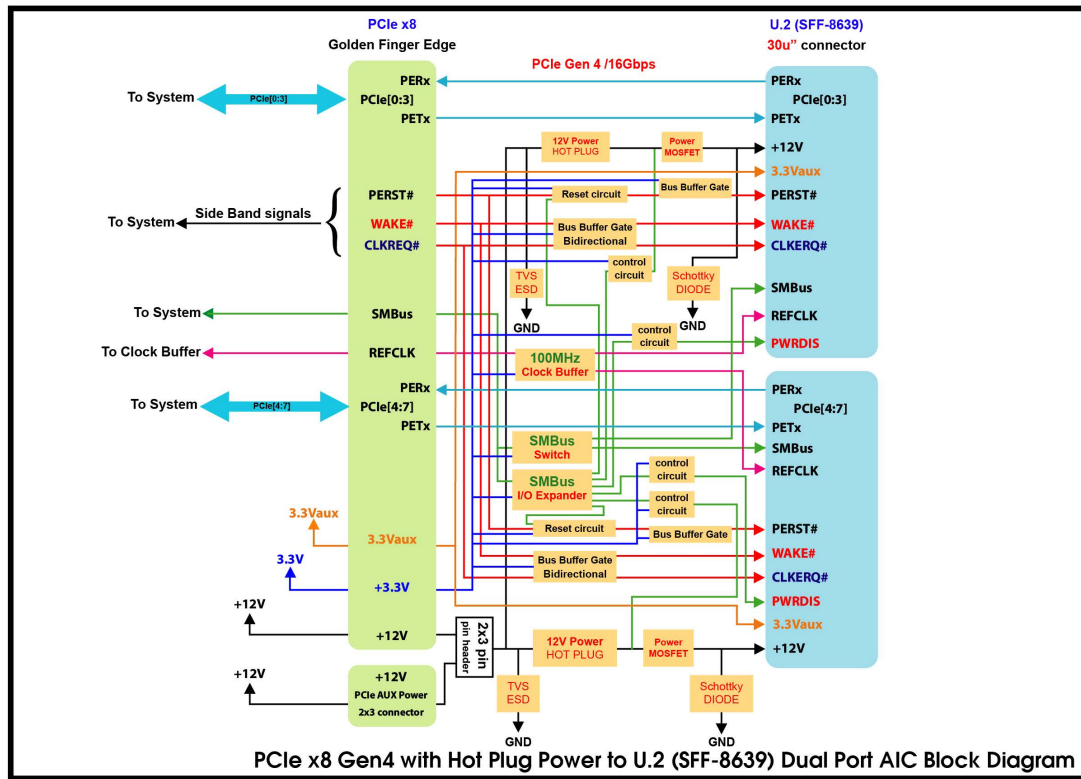
Specifications

- ※ PCI Express Base Specification Rev 4.0
- ※ PCIe_CEM_SPEC_R4_V1_0_08072019_NCB
- ※ Compliant with NVMe Express 1.3
- ※ Support SSD_Form_Factor_Version1_a
- ※ Compliant with PCI Express SFF-8639 Module Specification Revision 4.0, Version 0.7

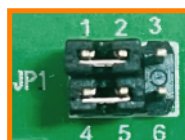
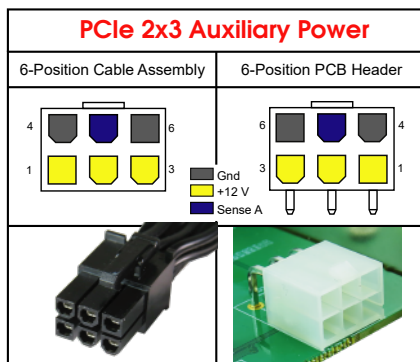
Applications

- ※ Rack server
- ※ Microserver and Tower server
- ※ High performance computing
- ※ Hardware accelerator
- ※ Storage Controller HBA(Host Bus Adapter)
- ※ Desktop PC/motherboard

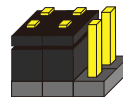
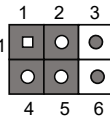
PCIe x8 Gen4 for bifurcated U.2 NVMe SSD Dual Port AIC



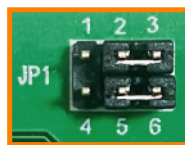
The switches settings are as noted below



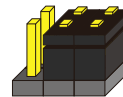
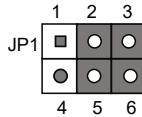
Setting



1-2	ON	From Aux +12V
4-5	ON	



Setting



1-2	ON	From PCIe +12V
4-5	ON	

