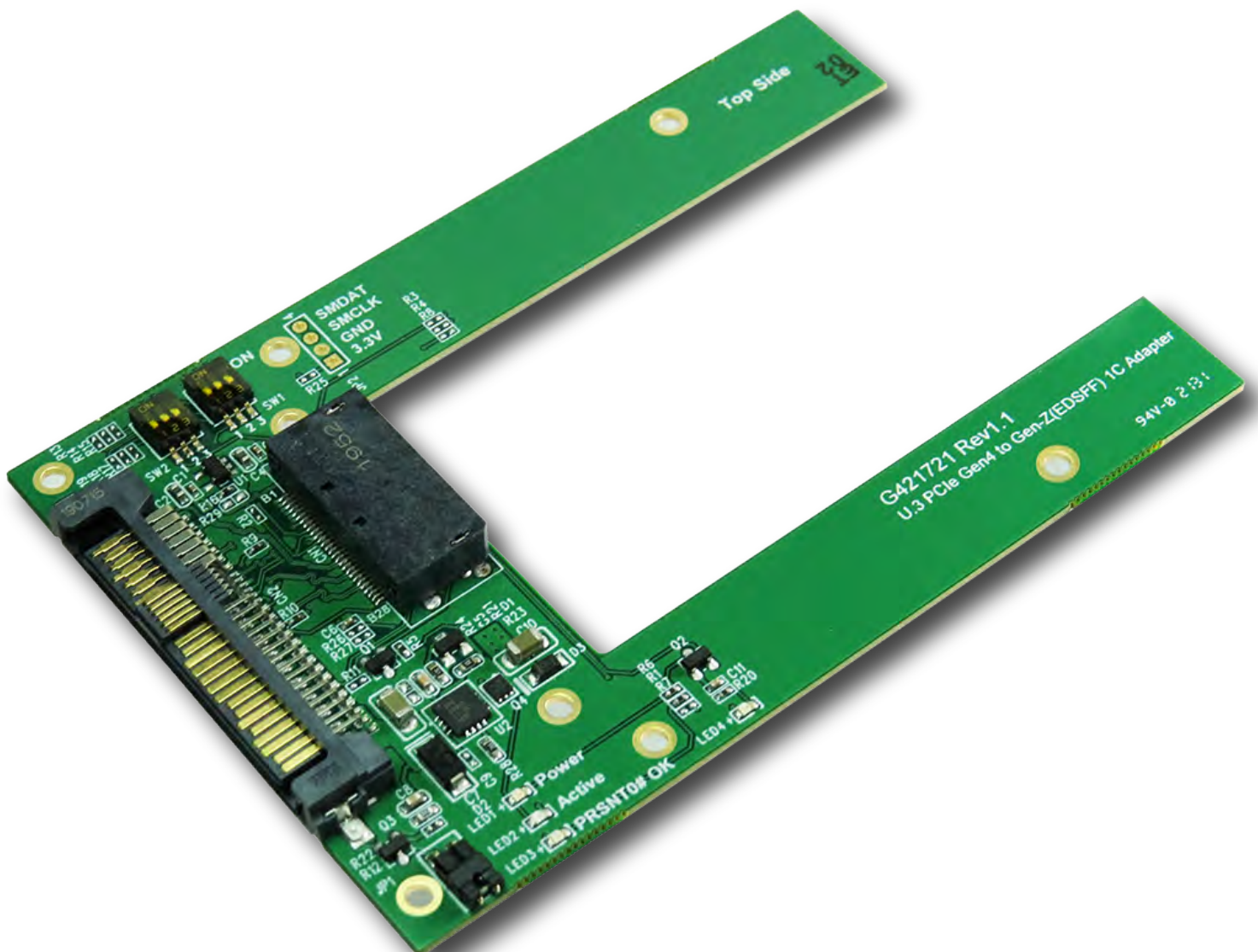# Minerva
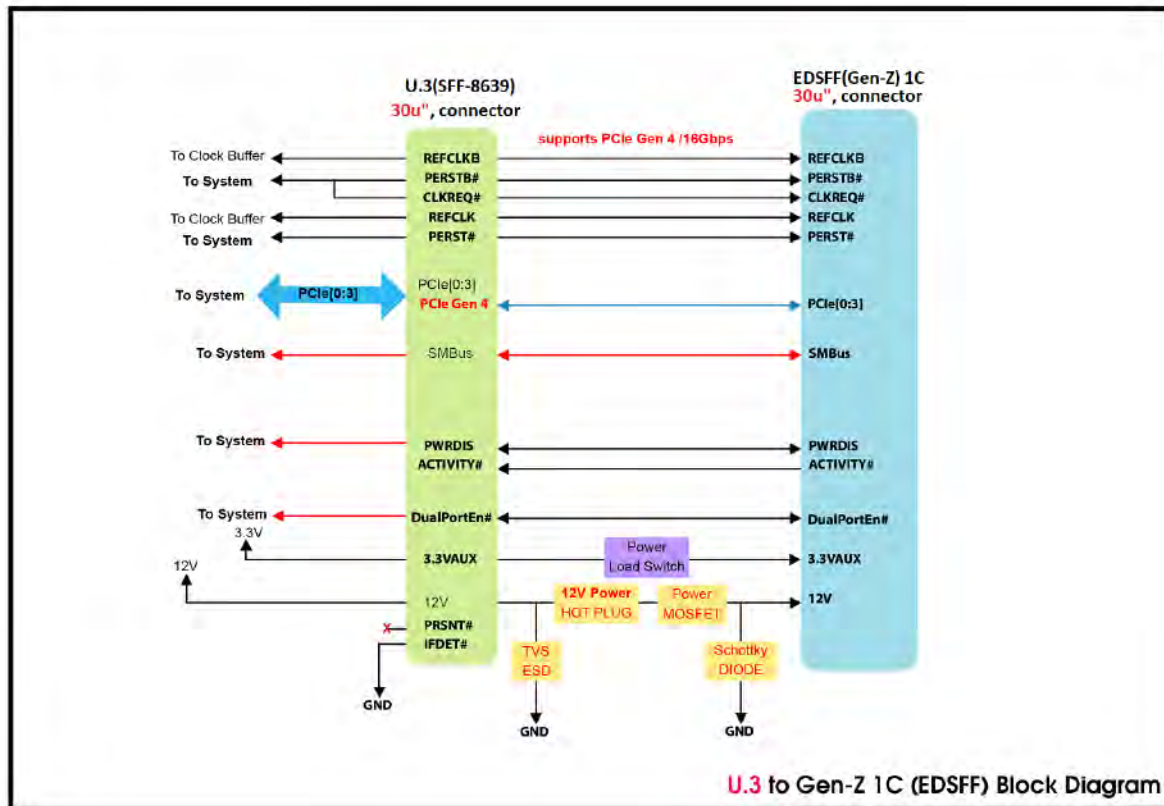
GD1407A
U.3 PCIe Gen 4, 16GT/s to Gen-Z 1C(EDSFF) Adapter

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U.3 to Gen-Z 1C (EDSFF) Block Diagram

Features

※ Built-in 12V Hot Plug Power IC with eFuse protection circuit
※ Built-in U.3(SFF-8639) Male connector
※ Built-in EDSFF (Gen-Z) 1C Connector
※ Supports SMB_CLK/ SMB_DATA
※ Supports PWRDIS
※ Supports DualPortEn
※ LED1 GREEN indicates 12V Power Ready
※ LED2 RED LED Blinking indicates Gen-Z SSD active status
※ LED3 GREEN indicates PRSNT0# OK
※ LED4 GREEN indicates 3.3Vaux Power Ready
※ JP1 pin header must be to setup on, when Host does not supply 3.3Vaux
※ U.3 Device Type Encording setup switch on board

Specifications

※ Compliant with NVM Express 1.2
※ Support PCI Express Base Specification Rev 4.0
※ Support SSD_Form_Factor_Version1_a
※ Compliant with PCIe_SFF-8639_R3.0_V1.0
※ Compliant with SFF-TA-1001 Rev1.1
※ Compliant with SFF-TA-1002 Specification Multi Lane High Speed Connector Rev1.3
※ Compliant with SFF-TA-1006 Enterprise and Datacenter 1U Short SSD Form Factor Rev 1.5
※ Compliant with Gen-Z Scalable Connector Rev1.1

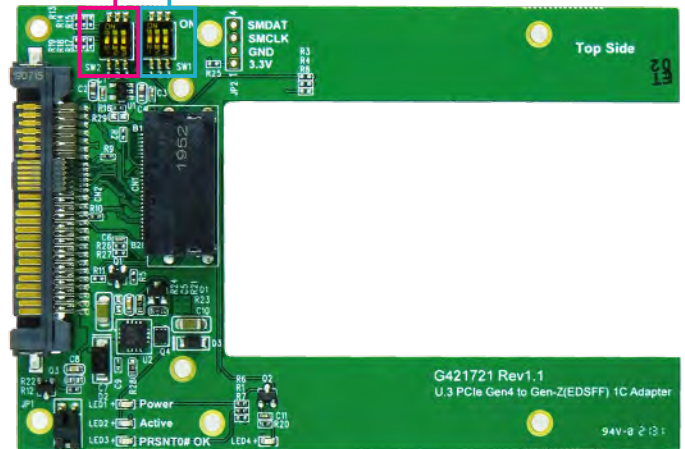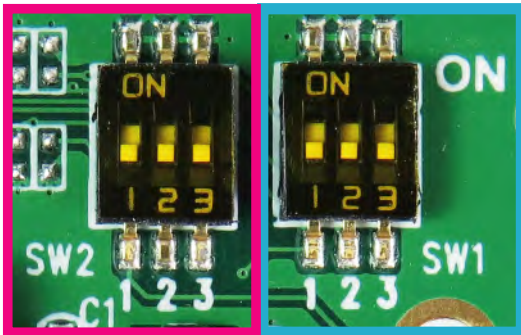# U.3 PCIe Gen 4, 16GT/s to Gen-Z 1C(EDSFF) Adapter

The switch settings of GD1407A are as belows

SW2 SETUP - DEVICE TYPE ENCODING

POS1	POS2	POS3	
PRSNT#	IfDet2#	IfDet#	
P10 pin	E6 pin	P4 pin	Device Type Installed
Gnd	Open	Gnd	SAS / SATA
Gnd	Open	Open	NVMe - (PCIe-HDD device)
Open	Open	Gnd	Quad PCIe(U.2)
Open	Open	Open	Bay Empty
Open	Gnd	Gnd	SFF-TA-1001 PCIe(U.3)
Open	Gnd	Open	Gen-Z

SW1 SETUP - NVMe SSD & SAS / SATA device switch

POS1	POS2	POS3	Definition
Dual port#	HPT1	HPT0	
E25 pin	E16 pin	S15 pin	
×	Gnd	Gnd	SAS / SATA
×	Open	Gnd	NVMe PCIe

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