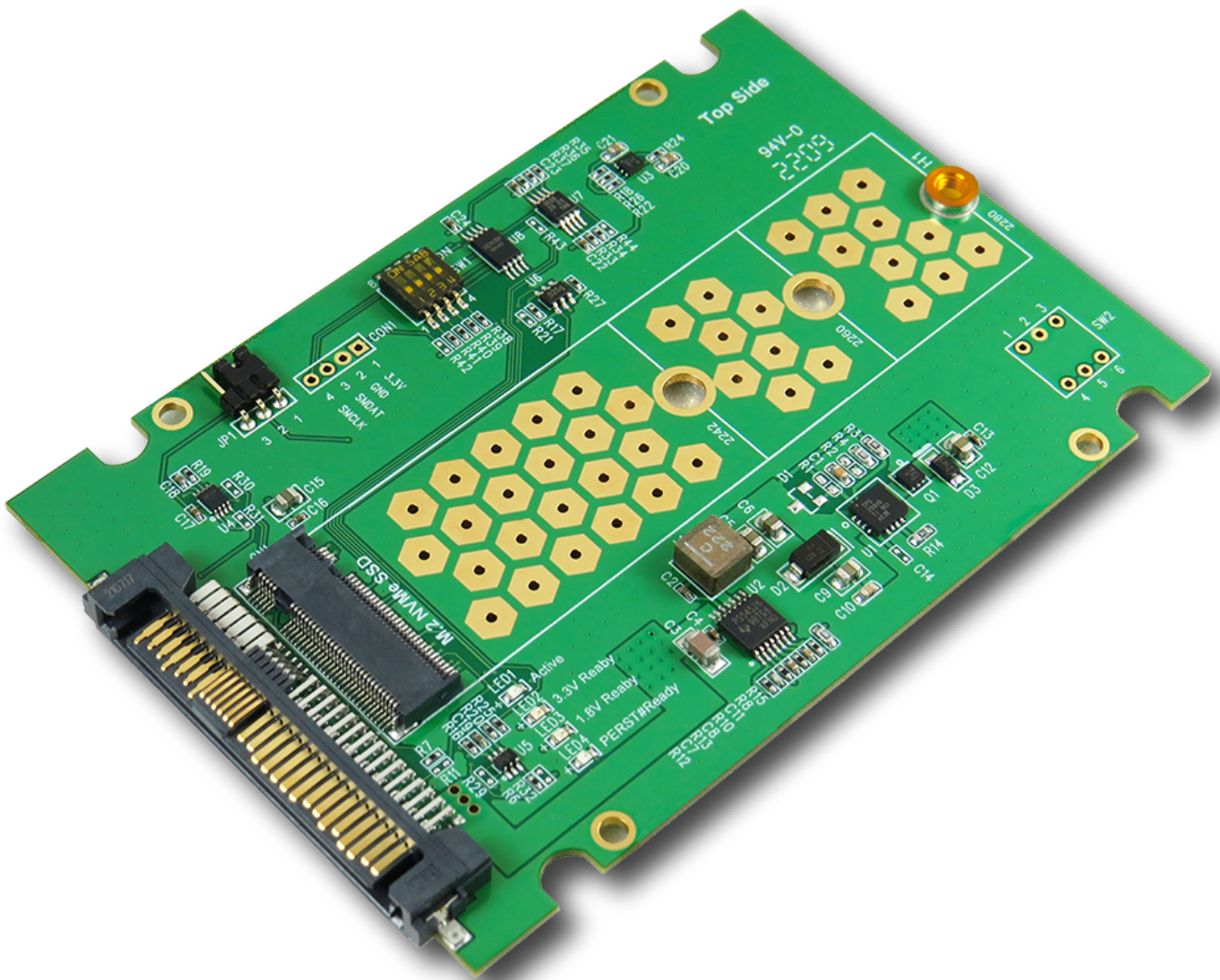




# Minerva

**GD1403A**

**U.2 PCIe Gen 4 to M.2 NVMe Adapter**



# PCIe Gen4 U.2 (SFF-8639) to M.2 NVMe Adapter

## Features

- ※ M.2 NVMe to U.2(SFF-8639) convert
- ※ Built-in SFF-8639 connector, pin-out defined by SFF-9402 Rev1.1
- ※ PWM 12V to 3.3V synchronous buck converter Power for M.2 NVMe SSD
  - ◆ 5.5A maximum output current
  - ◆ Output Discharge Control
  - ◆ The output overcurrent protection(OCP)
  - ◆ Undervoltage lock out protection(UVLO) monitor
  - ◆ Over/Under Voltage Protection
  - ◆ Thermal shutdown protection
  - ◆ ESD HBM (Human Body Mode)/500V
- ※ Built-in 3.3V Hotswap Power controller with programmable Inrush Slew rate, support a maximum continuous current of 6.5A for M.2 SSD protection
- ※ Built-in 3.3V input with 400W TVS(TRANSIENT VOLTAGE SUPPRESSOR) ESD protection
- ※ Built-in 3.3V output with 30-V, N channel NexFET power MOSFET, 32 m ohm
- ※ Built-in 3.3V output with SCHOTTKY BARRIER Power Rectifier
- ※ Supports M.2 3.3V&1.8V supply
- ※ Supports M.2 VIO\_CFG Signal
- ※ Supports M.2 PERST# Signal 3.3V and 1.8V voltage level shift
- ※ Supports M.2 CLKREQ# Signal 3.3V and 1.8V voltage level shift
- ※ Supports M.2 WAKE# Signal 3.3V and 1.8V voltage level shift
- ※ Supports PWRDIS Signal from U.2 pin to M.2 pin
- ※ Supports M.2 /1.8V to U.2/3.3V SMBus Hot Swap, Level Shift
- ※ Supports M.2 /1.8V to U.2 /3.3V SMBus isolated, repeater
- ※ Built-in SMBUS EEPROM 64KB
- ※ LED1 RED Blinking indicates M.2 active
- ※ LED2 Green ON indicates 3.3V Power Ready
- ※ LED3 Green ON indicates 1.8V Power Ready
- ※ LED4 Green OFF indicates PERST# Normal (Function intentionally inverted)

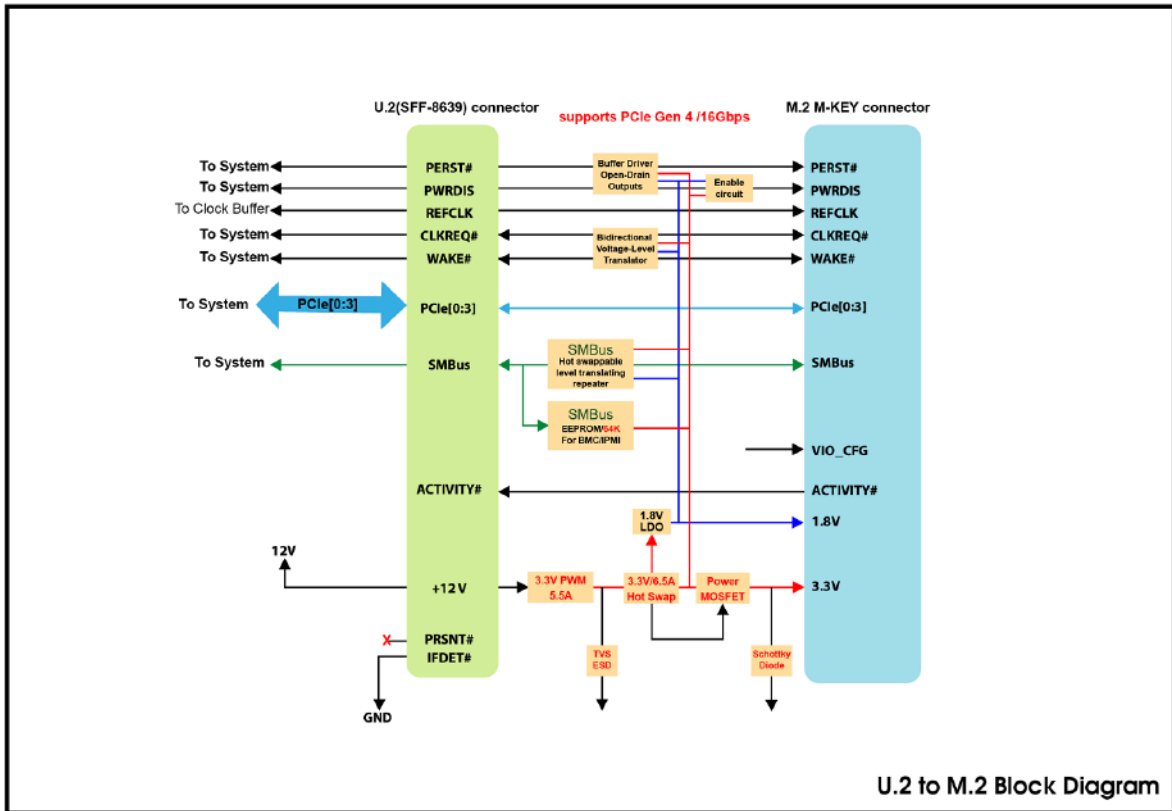
## Specifications

- ※ Compliant with NVM Express 1.3a
- ※ Support PCI Express Base Specification Rev 4.0
- ※ Support SSD\_Form\_Factor\_Version1\_a
- ※ Compliant with PCI Express M.2 Specification Version 1.2
- ※ Compliant with PCIe SFF-8639 Module Specification Rev 3.0
- ※ Compliant with SFF-TA-1001 Rev1.1

## Supports the following form factor M.2 SSD:

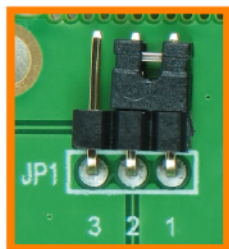
- ※ Type 2242-D2-B-M: 42mm(L) x 22mm(W)
- ※ Type 2260-D2-B-M: 60mm(L) x 22mm(W)
- ※ Type 2280-D2-B-M: 80mm(L) x 22mm(W)

# PCIe Gen4 U.2 (SFF-8639) to M.2 NVMe Adapter

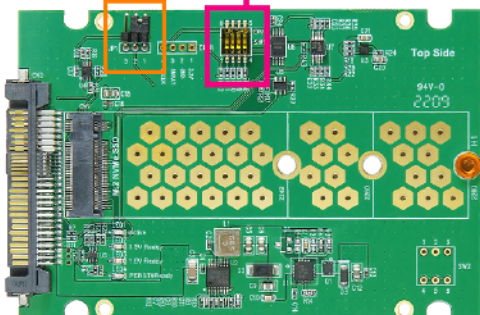
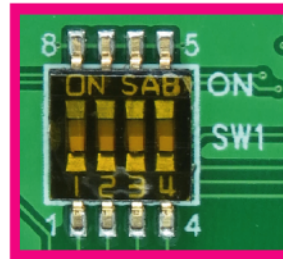


The switches settings are as noted below

## The switch settings of GD1403A are as belows



JP1			
1-2	on	3.3V	
2-3	on	1.8V	



**EEPROM : 24AA256T SETUP**

SW1	POS1	POS2	POS3	POS4
	A0 pin	A1 pin	A2 pin	WP pin
Default(Hi)	1	1	1	1
I2C Address : 0xAE (1010111)				
OFF--Hi(1)	ON--Low(0)	Write-Protection		

Model No.: **GD1403A**  
 U.2 (SFF-8639) PCIe Gen 4 to M.2 NVMe SSD Adapter

<http://www.minerva.com.tw/>