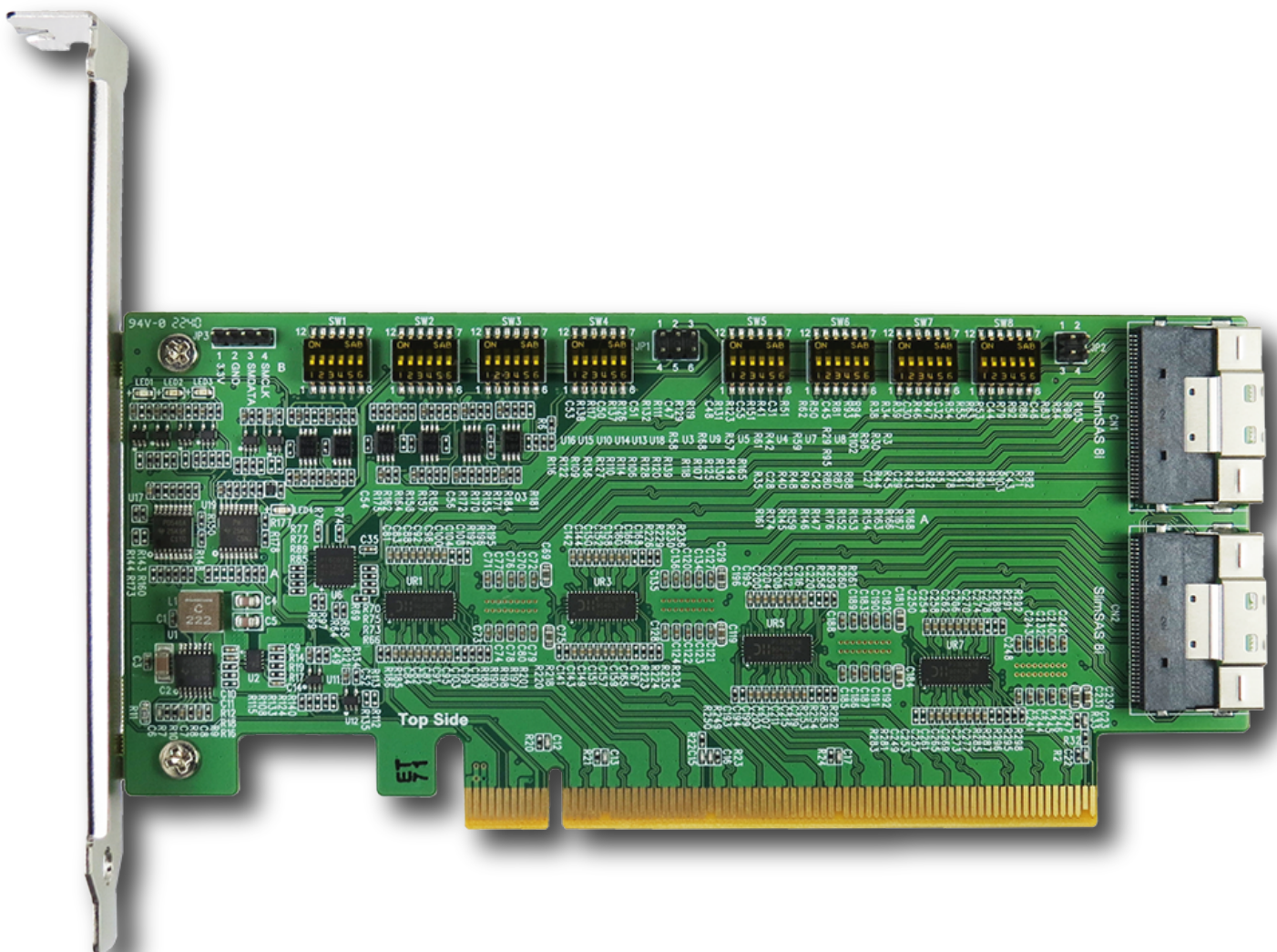


Minerva

DP7401

PCIe x16 Gen4 with ReDriver to SlimSAS 8i Dual port Add-in Card



PCIe x16 Gen4 with ReDriver to SlimSAS 8i Dual port Add-in Card

Features

- ※ SlimSAS 8i (SFF-8654) to PCIe x16 Gen4 convert
- ※ Built-in SFF-8654 8i connector x2pcs, pin define by SFF-9402 Rev1.1
- ※ Built-in ReDriver to extend PCIe 4.0, 16GT/s 16 lanes differential pair signals data link width.
- ※ The PCIe 16 lanes can be bifurcated into four x4 link width to support different system topologies
- ※ Built-in PCIe 100MHz Clock buffer(Address: 0x6C) for SlimSAS 8i(SFF-8654) to drive longer cable length. It may be buffered and fanned out to the SlimSAS 8i(SFF-8654) clock pin.
- ※ Built-in SMBus Switch(Address: 0x70) with Reset Funtion for SlimSAS 8i(SFF-8654) SMBus communication
- ※ Built-in SMBus I/O Expander(Address: 0x20) for OOB(out of band) management to remote SlimSAS 8i (SFF-8654) Reset signals.
- ※ Supports PCIe PERST# management to control SlimSAS 8i(SFF-8654) Reset signals.
- ※ Built-in PERST# Bus Buffer to be used over longer cable length.
- ※ Built-in WAKE# Auto-Bidirectional Bus Buffer to be used over longer cable length.
- ※ Built-in CLKREQ# Auto-Bidirectional Bus Buffer to be used over longer cable length.
- ※ Built-in PWRBRK# Bus Buffer to be used over longer cable length.
- ※ Built-in 12V to 3.3V, 5.5A PWM Power controller
- ※ Built-in 3.3V Power Load Switch for ReDriver controller Power Protection.
- ※ The WAKE# signals power supply can choose +3.3V or 3.3VAUX, the default is 3.3VAUX
- ※ LED1 Red LED on indicates AIC ready
- ※ LED4 Green OFF indicates PERST# Normal (Function intentionally inverted)

Specifications

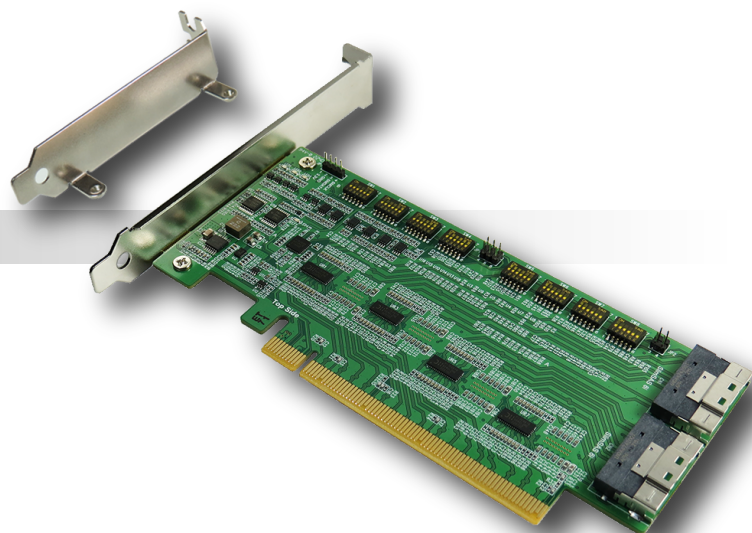
- ※ PCI Express Base Specification Rev 4.0
- ※ PCIe_CEM_SPEC_R4_V1_0_08072019_NCB
- ※ Compliant with Support SFF-9402 Rev1.1
- ※ Compliant with SFF-8654 Specification Version 1.2

Operating system support

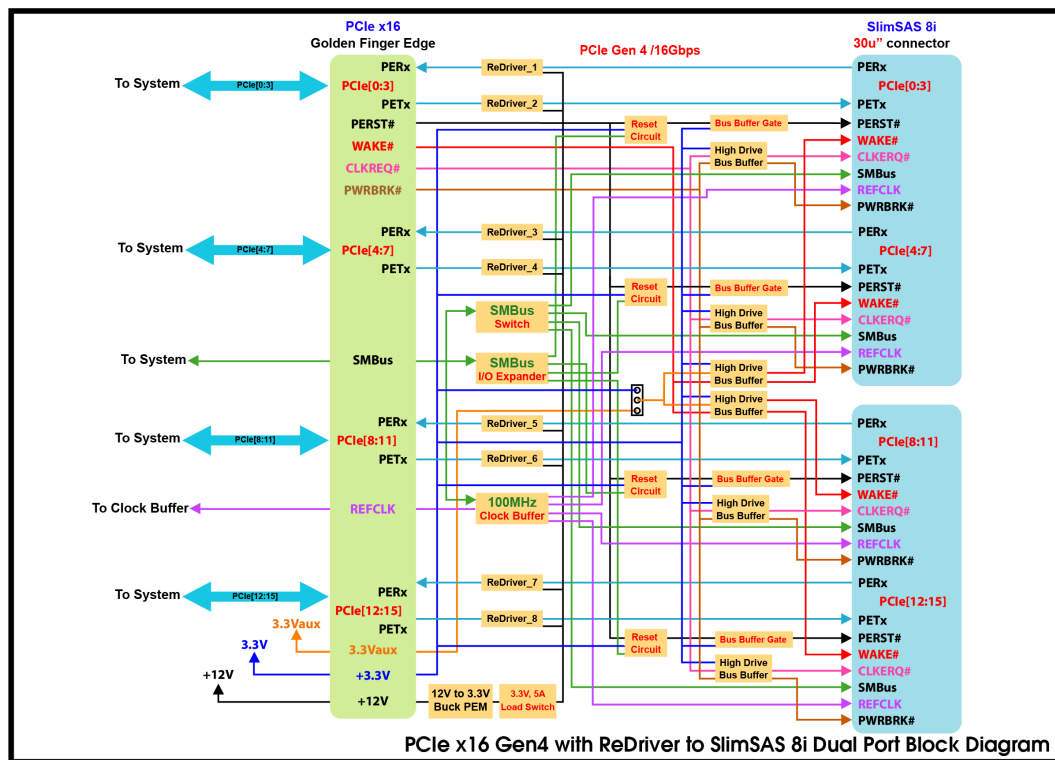
- ※ Windows 7
- ※ Windows 8 &8.1
- ※ Windows 10
- ※ UEFI 2.3.1 or later

Applications

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



PCIe x16 Gen4 with ReDriver to SlimSAS 8i Dual port Add-in Card

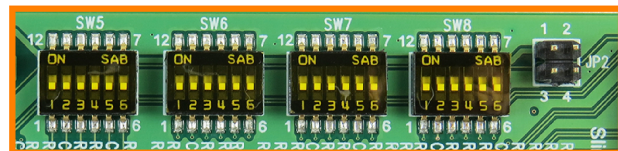
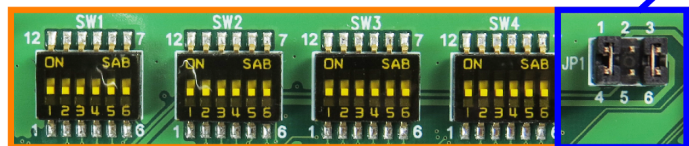
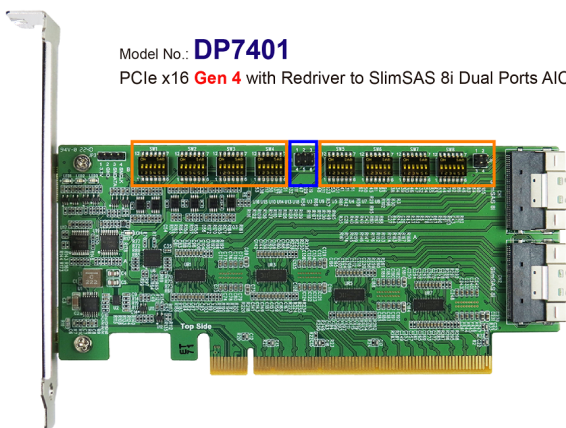


he switches settings are as noted below

Default setup

Model No.: **DP7401**

PCIe x16 **Gen 4** with Redriver to SlimSAS 8i Dual Ports AIC



SW1 OR SW2 OR SW3 OR SW4	1-12	Output Swing Setting	1		
			on	0	
2-11 FG0	Flat Gain Setting	off	1	1200 mVp-p	
		on	0		
3-10 FG1	Flat Gain Setting	off	1		
		on	0		
4-9 EQ0	Equalization Setting	off	1		
		on	0		
5-8 EQ1	Equalization Setting	off	1		
		on	0		
6-7 EQ2	Equalization Setting	off	1		
		on	0		

2		
Flat Gain Setting		
FG1	FG0	dB
0	0	-3.5
0	1	-2
1	0	-0.5
1	1	1

Default Value : { 1. Swing : High
2. Flat Gain : High
3. Equalization : High

3						
Equalizer Setting (dB)						
EQ2	EQ1	EQ0	@1.25GHz	@2.5GHz	@4GHz	@8GHz
0	0	0	0.2	1.0	2.3	5.6
0	0	1	0.2	1.1	2.6	6.2
0	1	0	1.8	2.7	3.9	7.0
0	1	1	2.1	3.3	4.8	8.5
1	0	0	3.0	4.2	5.8	9.4
1	0	1	3.2	4.6	6.5	10.4
1	1	0	4.3	5.8	7.8	11.7
1	1	1	4.5	6.5	8.8	13.0