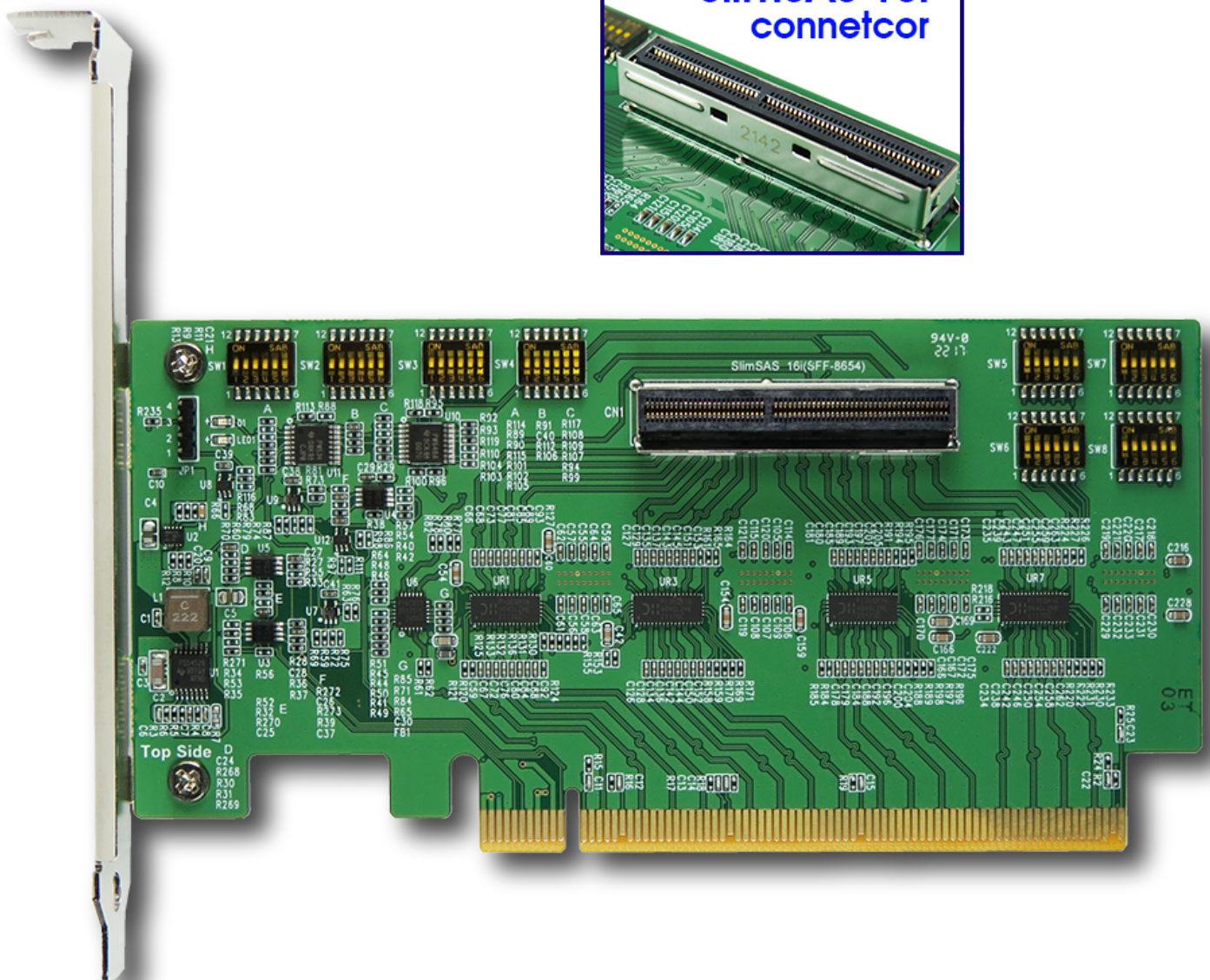


Innocard

Minerva

DP7402

PCIe x16 Gen4 with ReDriver to SlimSAS 16i Add-in Card



PCIe x16 Gen4 with ReDriver to SlimSAS 16i Add-in Card

Features

- ※ SlimSAS 16i(SFF-8654) to PCIe x16 Gen4 convert
- ※ Built-in SlimSAS 16i(SFF-8654) connector
- ※ 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 or two x8 link width to support different system topologies
- ※ Built-in PCIe 4.0 100MHz Clock 2-output Fanout buffers(Address: 0x6C) for two x4 to drive longer cable length. It may be buffered and fanned out to the SlimSAS 16i(SFF-8654) clock pin.
- ※ Built-in SMBus Switch(Address: 0x70) with Reset Funtion for SlimSAS 16i(SFF-8654) SMBus communication
- ※ Built-in SMBus I/O Expander(Address: 0x20) for OOB(out of band) management to remote SlimSAS 16i (SFF-8654) Reset signals.
- ※ Supports PCIe PERST# management to control SlimSAS 16i(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.
- ※ D1 Green LED on indicates AIC ready
- ※ LED1 Green LED on indicates AIC 3.3V ready

Specifications

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

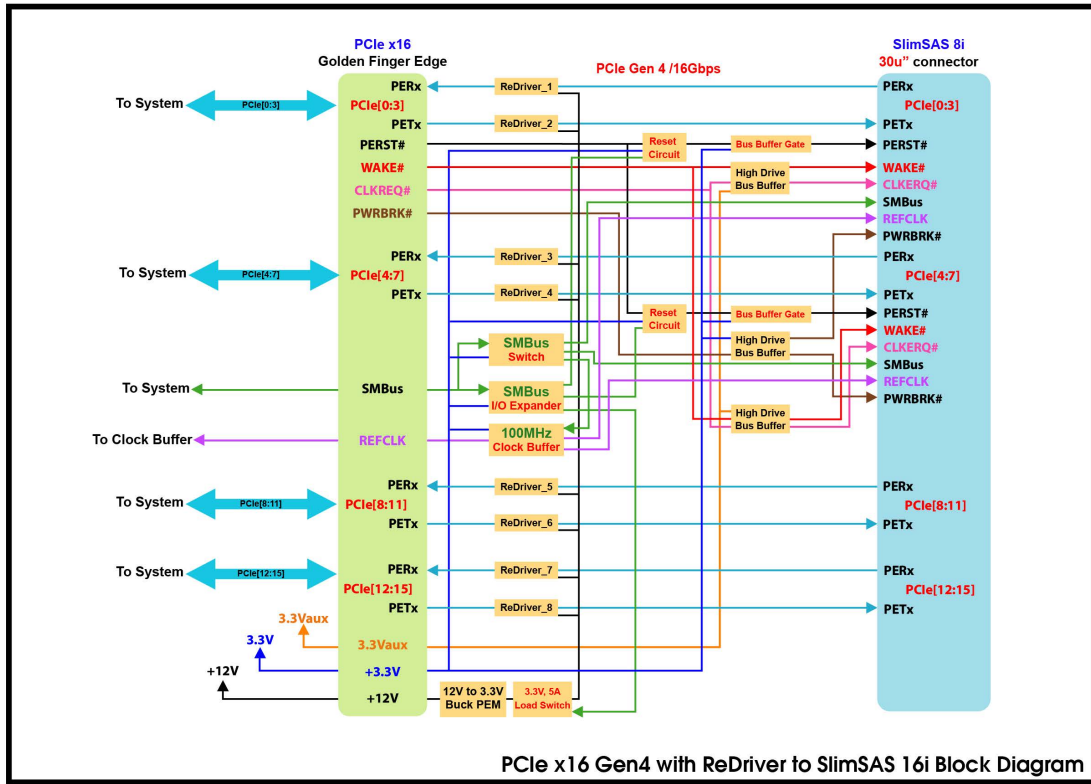
Operating system support

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

Applications

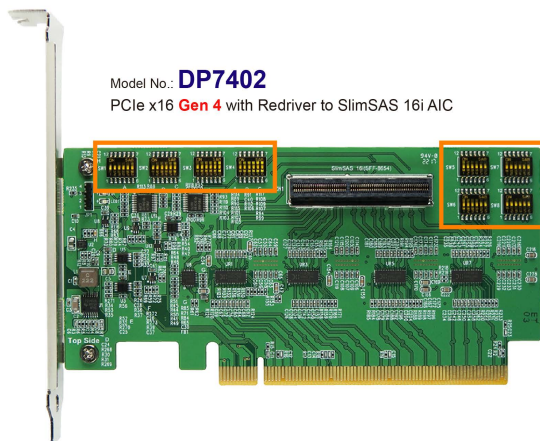
- ※ Rack server
- ※ Microserver and Tower server
- ※ High performance computing
- ※ Hareware accelerator
- ※ Storage Controller HBA(Host Bus Adapter)
- ※ Desktop PC/motherboard

PCIe x16 Gen4 with ReDriver to SlimSAS 16i Add-in Card

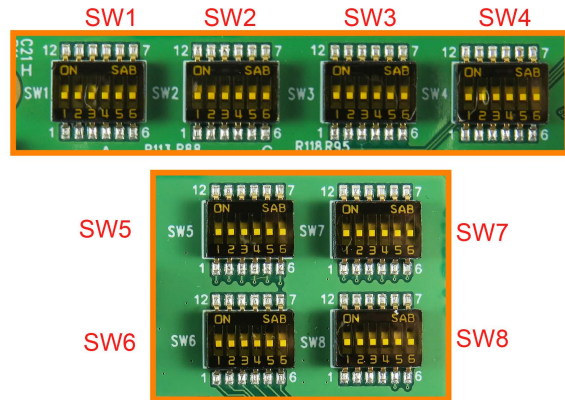


PCIe x16 Gen4 with ReDriver to SlimSAS 16i Block Diagram

The switches settings are as noted below



Model No.: DP7402
PCIe x16 Gen 4 with Redriver to SlimSAS 16i AIC



SW	Pin Range	Setting	Value	Unit
SW1	1-12	Output Swing Setting	on	0
SW2	2-11	Flat Gain Setting	off	1
SW3	3-10		on	0
SW4	4-9		off	1
SW5	4-9	Equalization Setting	on	0
SW6	5-8		off	1
SW7	6-7		on	0
SW8	6-7	off	1	1

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

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