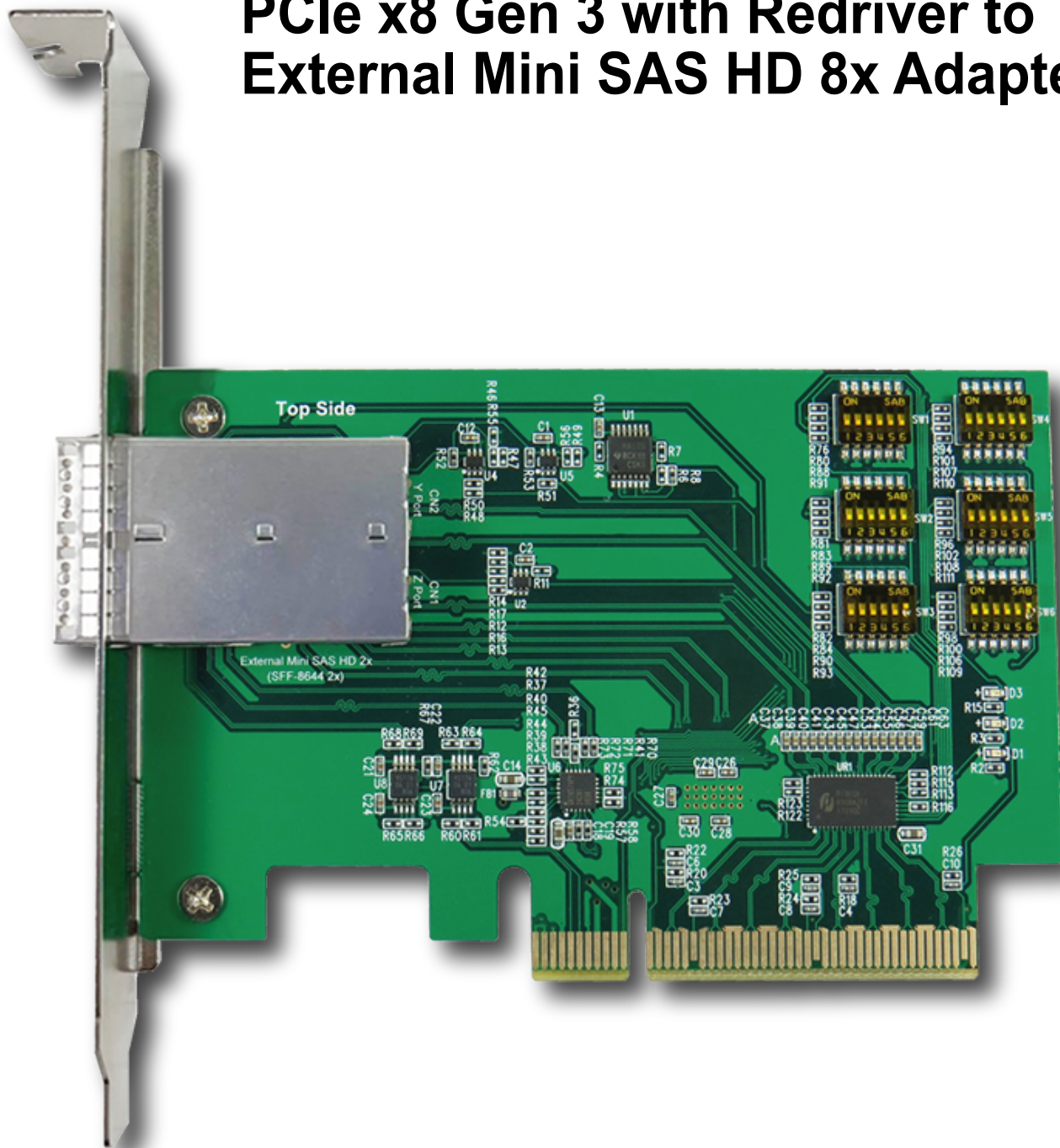


Minerva

PE0806

**PCIe x8 Gen 3 with Redriver to
External Mini SAS HD 8x Adapter**



PCIe x8 to External Mini SAS HD 8x Adapter

Features

- ※ External Mini SAS HD 8x (SFF-8644) to PCIe x8 Gen 3 convert
- ※ Built-in SFF-8644 8x connector
- ※ Built-in ReDriver to extend PCIe 3.0, 8GT/s differential pair signals 8 lanes data link widths.
- ※ Built-in PCIe 100MHz Clock buffer to drive longer trace length and longer cable length.
- ※ Built-in PCIe SMCLK, SMDAT bidirectional buffer repeater
- ※ Built-in PERST# Bus Buffer Gate to be used over longer trace lengths and over longer cable lengths.
- ※ Built-in WAKE# Bus Buffer Gate to be used over longer trace lengths and over longer cable lengths.
- ※ Built-in CLKREQ# Bus Buffer Gate to be used over longer trace lengths and over longer cable length.
- ※ D1 Green LED on indicates AIC ready
- ※ D2 Green LED on indicates UR1 ReDriver chip enable
- ※ D3 Green LED on indicates UR2 ReDriver chip enable

Specifications

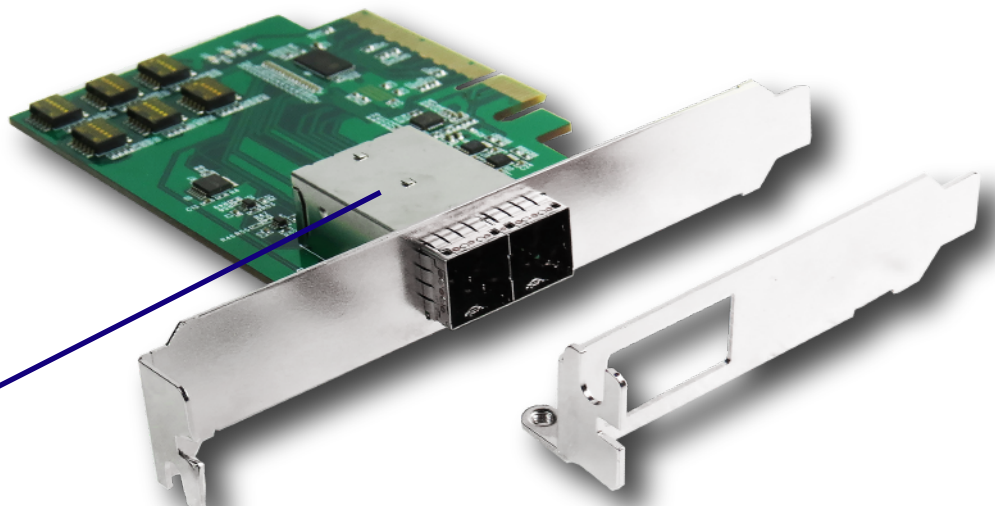
- ※ PCI Express Base Specification Rev 3.0
- ※ PCIe CEM Rev3.0
- ※ PCI_Express_External_Cabling_R3.0a_06042020_NCB

Applications

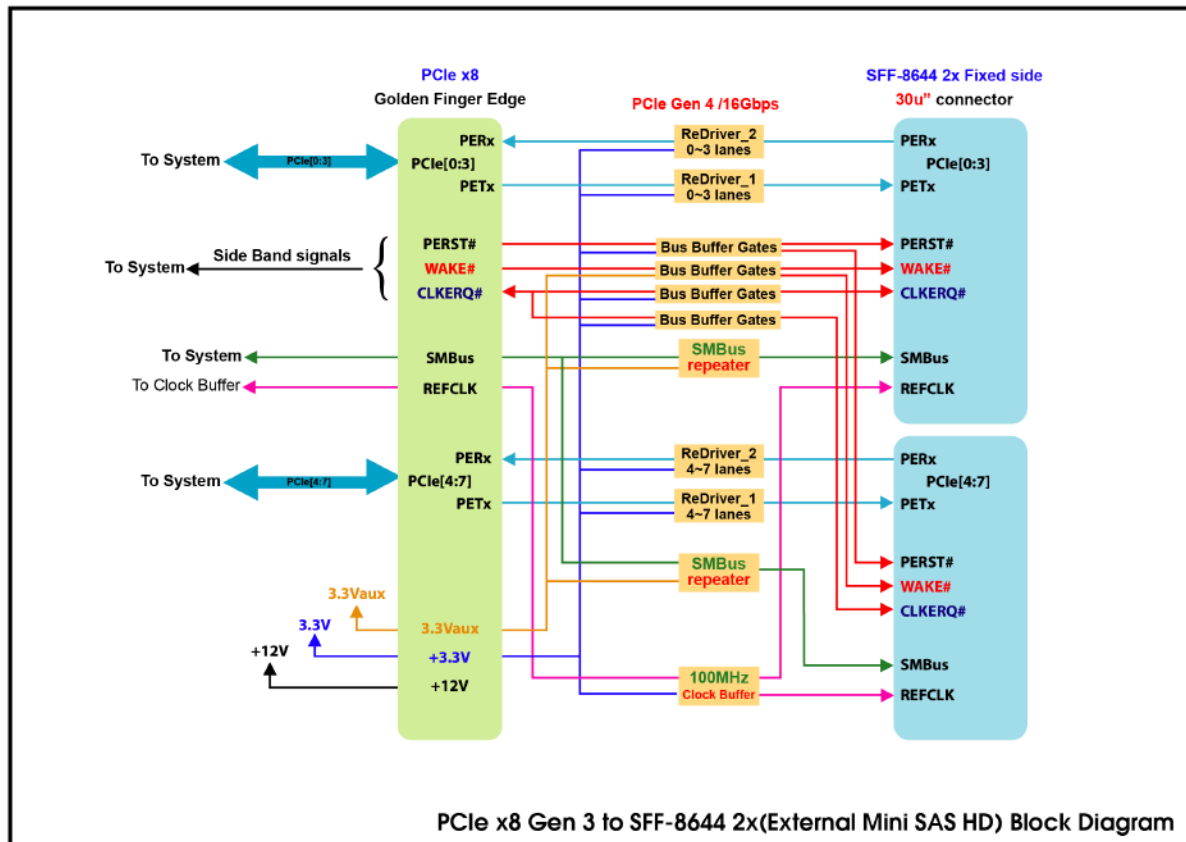
- ※ Rack server
- ※ Microserver and Tower server
- ※ High performance computing
- ※ Hardware accelerator
- ※ Storage Controller HBA(Host Bus Adapter)
- ※ Desktop PC/motherboard



External Mini SAS HD 8x

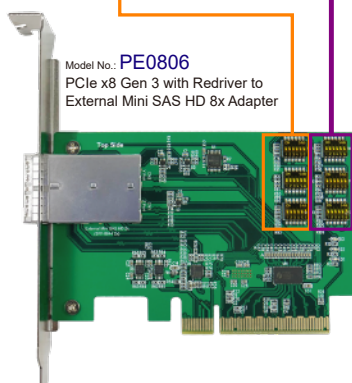
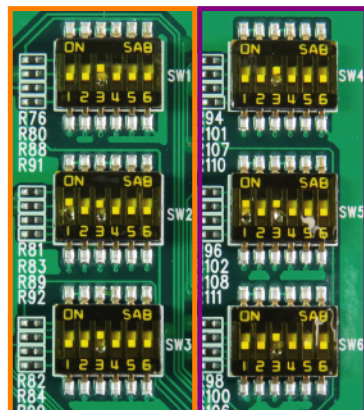


PCIe x8 to External Mini SAS HD 8x Adapter



The switches settings are as noted below

SW1, SW2, SW3 For UR1 ReDriver Setup
SW4, SW5, SW6 For UR2 ReDriver Setup



SW1 or SW4	Equalization Setting in Bank A	1-12	on	1
		EQA0	off	HIZ
		2-11	on	0
		EQA0	off	HIZ
		3-10	on	1
		EQA2	off	HIZ
		4-9	on	0
		EQA2	off	HIZ
		5-8	on	0
		EQA1	off	1
	Output Swing Setting	6-7	on	0
		SW0	off	1

SW2 or SW5	Flat Gain in Bank A	1-12	on	1
		FQA0	off	X
		2-11	on	0
		FQA0	off	X
		3-10	on	1
		FQA1	off	X
		4-9	on	0
		FQA1	off	X
		5-8	on	0
		FGB0	off	1
	Flat Gain in Bank B	6-7	on	0
		FGB1	off	1

SW3 or SW6	Equalization Setting in Bank B	1-12	on	1
		EQB0	off	HIZ
		2-11	on	0
		EQB0	off	HIZ
		3-10	on	1
		EQB2	off	HIZ
		4-9	on	0
		EQB2	off	HIZ
		5-8	on	0
		EQB1	off	1
	ReDriver operation	6-7	on	0
			off	1

Equalizer Setting (dB)						
EQ2	EQ1	EQ0	1.25GHz	2.5GHz	4GHz	
0	0	0	0.8	3.4	6.3	
0	0	1	1	4	7.3	
0	1	0	1.3	4.6	8.2	
0	1	1	1.5	5.3	9	
1	0	0	2.8	6.2	9.8	
1	0	1	3	6.7	10.4	
1	1	0	3.2	7.2	11.1	
1	1	1	3.5	7.7	11.6	
HIZ	0	0	4.4	8.4	12.2	
HIZ	0	1	4.6	8.8	12.7	
HIZ	1	0	4.8	9.2	13.1	
HIZ	1	1	5	9.5	13.5	
0	0	HIZ	6	10.3	14	
0	1	HIZ	6.2	10.6	14.4	
1	0	HIZ	6.4	10.9	14.7	
1	1	HIZ	6.6	11.2	15	

Output Swing Setting	
0	900mV
1	1000mV

Flat Gain Setting		
FG1	FG0	dB
0	0	-4
0	1	-2
1	0	0
1	1	2

ReDriver operation	
0	Enable UR1 ReDriver
1	Disable UR1 ReDriver