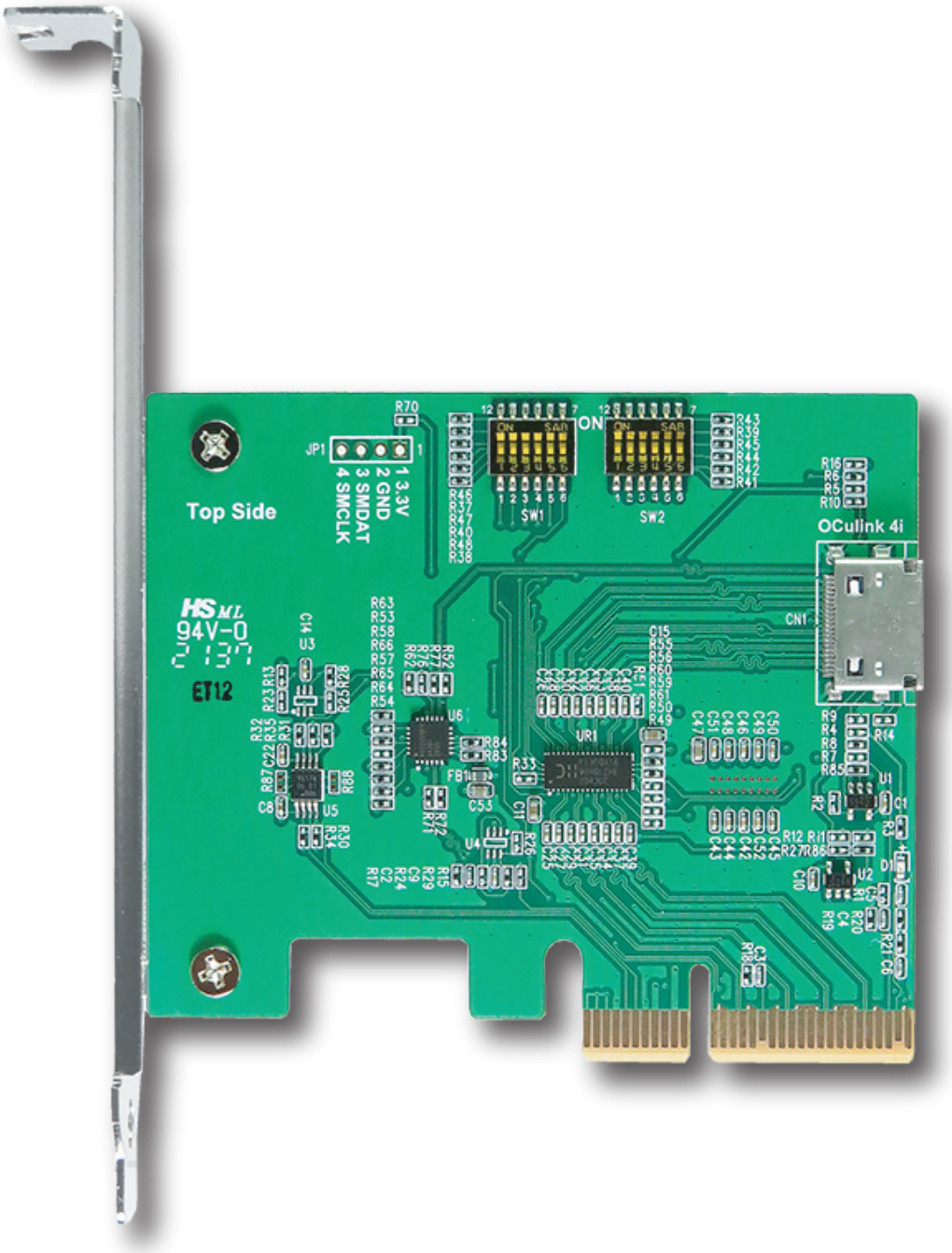
Innocard

Minerva

DP9301

PCIe x4 Gen4 with ReDriver to OCulink 4i Host Bus Adapter



PCIe x4 Gen4 with ReDriver to OCulink 4i Host Bus Adapter

Features

※ Oculink4i (SFF-8612) to PCIe convert
※ Built- in SFF-8612 connector, pin-out defined by SFF-9402 Rev1.1
※ Built- in PCIe ReDriver to extend PCIe Gen 4, 16GT/s differential pair signals
※ Built- in PCIe 100MHz Clock buffer to drive longer trace lengths and longer cable
※ Built- in PCIe 3.3V SMCLK, SMDAT bidirectional buffer repeater
※ Built- in PERST# Bus Buffer Gate to be used over longer trace lengths and over longer cable
※ Built- in WAKE# Bus Buffer Gate to be used over longer trace lengths and over longer cable
※ Built- in CLKREQ# Bus Buffer Gate to be used over longer trace lengths and longer over cable
※ Built- in PWRBRK# Bus Buffer Gate to be used over longer trace lengths and longer over cable
※ D3 Green LED on indicates Host Bus Adapter ready

Specifications

※ PCI Express Base Specification Rev 4.0
※ PCIe_CEM_SPEC_R4_V1_0_08072019_NCB
※ Support SSD_Form_Factor_Version1_a
※ Compliant with SFF-8612 Specification Version 3.5
※ PCI_Express_OCuLink_1.0a

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

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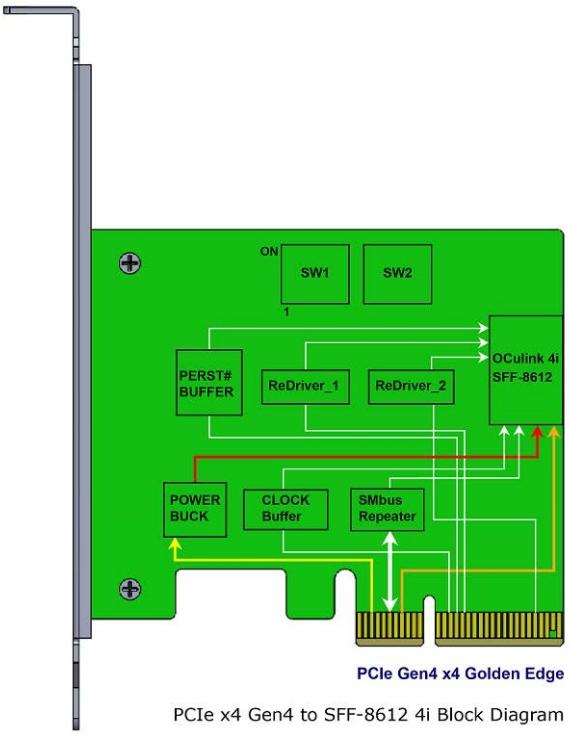


PCIe x4 Gen4 to SFF-8612 4i Block Diagram

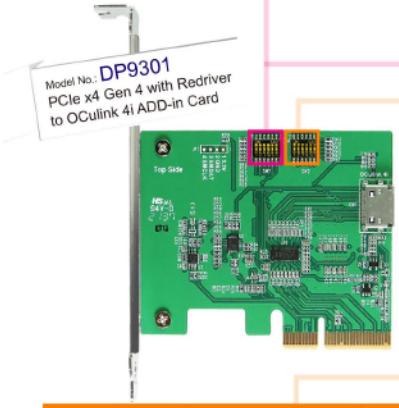
The switch settings of DP9301 are as belows

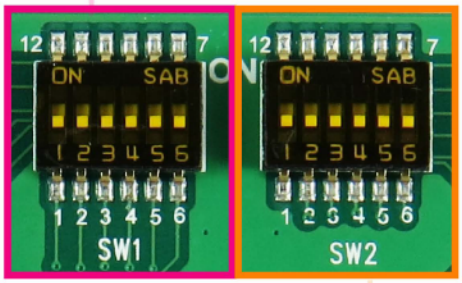
SW1	1-12	Output Swing Setting	on	0
			off	1
	2-11 FG0	Flat Gain Setting	on	0
			off	1
	3-10 FG1		on	0
			off	1
	4-9 EQ0	Equalization Setting	on	0
			off	1
	5-8 EQ1		on	0
			off	1
	6-7 EQ2		on	0
			off	1

800 mVp-p
1200 mVp-p

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

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





SW2	1-12	Output Swing Setting	on	0
			off	1
	2-11 FG0_1	Flat Gain Setting	on	0
			off	1
	3-10 FG1_1		on	0
			off	1
	4-9 EQ0_1	Equalization Setting	on	0
			off	1
	5-8 EQ1_1		on	0
			off	1
	6-7 EQ2_1		on	0
			off	1

800 mVp-p
1200 mVp-p

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

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

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