QSFP-200G-PCxxx
TEST REPORT

Contents

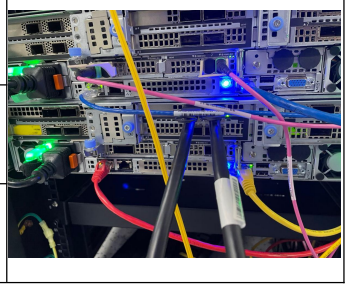
1. List of Test Items

Test Items	Test Sub-items	Test Contents	Test Results
Test Lanes	Test Lanes	Lane0~Lane3	/
Product Photoelectric Testing	Traffic Transmission Test	Raw Physical BER	Pass
		Symbol Errors	Pass
		Link Down Counter	Pass
Adaptability Test	Brand Compatibility Test	Brand Equipment Compatibility Test	Pass
Business Network Testing	Port Speed Reduction Application	Port speed Reduction Application Testing	Pass

2. Product Photoelectric Testing

2.1 Traffic Transmission Test

2.1.1 Test Introduction

Device Type	Brands	Test Iterms	Test Results	Testing Environment
Traffic Tester	NVIDIA	Raw Physical BER	Pass	
		Symbol Errors	Pass	
		Link Down Counter	Pass	

2.1.2 Test Procedures

Steps	Summary of Test Steps
1	Configure a traffic tester and generate data streams through optical modules.
2	Measure the forward error correction pre-error rate and frame loss rate of each channel in the test environment.
3	Verify whether the results meet the specification requirements.

2.1.3 Test Results

Table 2-1: Traffic Transmission Test Results

No.	Raw Physical BER	Symbol Errors	Link Down Counter
SN 1	3.00E-09	0	0
SN 2	1.00E-09	0	0

3. Brand Compatibility Test

3.1 Brand Compatibility Test

3.1.1 Test Introduction

Device Type	Brands	Test Iterms	Test Results	Testing Environment
Switches\NICs	NVIDIA	Brand Equipment Compatibility Test	Pass	

3.1.2 Test Procedures

Steps	Summary of Test Steps
1	Insert the optical module into the switch\network card port.
2	Verify the connection status, alarm information, type information and DDM information.
3	Ensure compatibility with the device software version.

3.1.3 Test Results

Table 3-1: Brand Compatibility Test Results

Equipment Brand	Device Version	Software Version of The Equipment	Warning Message	Connectivity	Type Information
NVIDIA IB	MQM8700-HS2F	3.11.2016	No Warning	Link Up	Passive Copper, Unequalized
NVIDIA IB	MCX755106AS-HEAT	28.43.1014	No Warning	Link Up	N/A
NVIDIA IB	MCX653106A-HDAT	20.43.1014	No Warning	Link Up	N/A

NVIDIA ETH	MSN4700-WS2F	3.10.4408	No Warning	Link Up	200GBASE-CR4
NVIDIA ETH	MSN3700-VS2F	3.9.3202	No Warning	Link Up	200GBASE-CR4
NVIDIA ETH	MCX755106AS-HEAT	28.43.1014	No Warning	Link Up	50GBASE-CR, 100GBASE-CR2, or 200GBASE-CR4
NVIDIA ETH	MCX653106A-HDAT	20.43.1014	No Warning	Link Up	50GBASE-CR, 100GBASE-CR2, or 200GBASE-CR4

4. Business Network Testing

4.1 Port Splitting Application Test

4.1.1 Test Introduction

Device Type	Brands	Test Iterms	Test Results	Testing Environment
Switches\NICs	NVIDIA	Port Splitting Application Test	Pass	
			Pass	

4.1.2 Test Procedures

Steps	Summary of Test Steps
1	Configure the switch to adopt port splitting mode (such as 200G to 200G ETH).
2	Use test equipment to verify the running information, port module information, and information such as port count/ bit error rate.
3	Take screenshots to record the output results of the tool.

4.1.3 Application Testing

Table 4-1: Port Splitting Application Testing

Split Mode	Test Equipment	Tool and Device Info	Operational Info	Supported Info	Physical Counters and BER Info
200G to 200G ETH	NVIDIA MQM8700-HS2F to NVIDIA MQM8700-HS2F	MQM8700-HS2F [standalone: master] # show version Product name: MLNX-OS Product release: 3.11.2016 Build ID: #1-dev Build date: 2023-12-31 15:57:34 Target arch: x86_64 Target hw: x86_64 Version summary: X86_64 3.11.2016 2023-12-31 15:57:34 x86_64 Product model: x86onie Host ID: 1070FD6D666A System serial num: MT2213J10378 System UUID: 45c7fe5c-aa5e-11ec-8000-1070fd796a44 Uptime: 7d 23h 35m 24.160s CPU load averages: 0.02 / 0.03 / 0.00 Number of CPUs: 4 System memory: 652 MB used / 7148 MB free / 7800 MB total Swap: 0 MB used / 0 MB free / 0 MB total	IB1/4 infiniband-default N/A 200.0 Gbps Active LinkUp IB1/5 infiniband-default Down Polling IB1/6 infiniband-default N/A 200.0 Gbps Active LinkUp	MQM8700-HS2F [standalone: master] # show interfaces ib 1/4 IB1/4 state: Logical port state : Active Physical port state : LinkUp Current line rate : 200.0 Gbps Supported speeds : sdr, hdr Speed : hdr Supported widths : 1X, 2X, 4X Width : 4X Max supported MTUs : 4096 MTU : 4096 VL admin capabilities : VL0 - VL7 Operational VLs : VL0 - VL3 Description : IB Subnet : infiniband-default Phy-profile : high-speed-ber Width reduction mode : Not supported Telemetry sampling : Disabled Telemetry threshold : Disabled Telemetry record : Disabled Telemetry threshold level: N/A bytes RX: Bytes : 1728 Packets : 6 Errors : 0 Symbol errors : 0 VL15 dropped packets: 0 TX: Bytes : 1728 Packets : 6 Wait : 0 Discarded packets: 0	/
		MQM8700-HS2F [standalone: master] # show version Product name: MLNX-OS Product release: 3.11.2016 Build ID: #1-dev Build date: 2023-12-31 15:57:34 Target arch: x86_64 Target hw: x86_64 Version summary: X86_64 3.11.2016 2023-12-31 15:57:34 x86_64 Product model: x86onie Host ID: 1070FD6D666A System serial num: MT2213J10378 System UUID: 45c7fe5c-aa5e-11ec-8000-1070fd796a44 Uptime: 7d 23h 35m 24.160s CPU load averages: 0.02 / 0.03 / 0.00 Number of CPUs: 4 System memory: 652 MB used / 7148 MB free / 7800 MB total Swap: 0 MB used / 0 MB free / 0 MB total	IB1/4 infiniband-default N/A 200.0 Gbps Active LinkUp IB1/5 infiniband-default Down Polling IB1/6 infiniband-default N/A 200.0 Gbps Active LinkUp	MQM8700-HS2F [standalone: master] # show interfaces ib 1/4 IB1/4 state: Logical port state : Active Physical port state : LinkUp Current line rate : 200.0 Gbps Supported speeds : sdr, hdr Speed : hdr Supported widths : 1X, 2X, 4X Width : 4X Max supported MTUs : 4096 MTU : 4096 VL admin capabilities : VL0 - VL7 Operational VLs : VL0 - VL3 Description : IB Subnet : infiniband-default Phy-profile : high-speed-ber Width reduction mode : Not supported Telemetry sampling : Disabled Telemetry threshold : Disabled Telemetry record : Disabled Telemetry threshold level: N/A bytes RX: Bytes : 1728 Packets : 6 Errors : 0 Symbol errors : 0 VL15 dropped packets: 0 TX: Bytes : 1728 Packets : 6 Wait : 0 Discarded packets: 0	/
200G to 200G ETH	NVIDIA MQM8700-HS2F to NVIDIA MCX653106A-HDAT	MQM8700-HS2F [standalone: master] # show version Product name: MLNX-OS Product release: 3.11.2016 Build ID: #1-dev Build date: 2023-12-31 15:57:34 Target arch: x86_64 Target hw: x86_64 Version summary: X86_64 3.11.2016 2023-12-31 15:57:34 x86_64 Product model: x86onie Host ID: 1070FD6D666A System serial num: MT2213J10378 System UUID: 45c7fe5c-aa5e-11ec-8000-1070fd796a44 Uptime: 7d 23h 35m 24.160s CPU load averages: 0.02 / 0.03 / 0.00 Number of CPUs: 4 System memory: 652 MB used / 7148 MB free / 7800 MB total Swap: 0 MB used / 0 MB free / 0 MB total	IB1/4 infiniband-default N/A 200.0 Gbps Active LinkUp IB1/5 infiniband-default Down Polling IB1/6 infiniband-default N/A 200.0 Gbps Active LinkUp	MQM8700-HS2F [standalone: master] # show interfaces ib 1/4 IB1/4 state: Logical port state : Active Physical port state : LinkUp Current line rate : 200.0 Gbps Supported speeds : sdr, hdr Speed : hdr Supported widths : 1X, 2X, 4X Width : 4X Max supported MTUs : 4096 MTU : 4096 VL admin capabilities : VL0 - VL7 Operational VLs : VL0 - VL3 Description : IB Subnet : infiniband-default Phy-profile : high-speed-ber Width reduction mode : Not supported Telemetry sampling : Disabled Telemetry threshold : Disabled Telemetry record : Disabled Telemetry threshold level: N/A bytes RX: Bytes : 1728 Packets : 6 Errors : 0 Symbol errors : 0 VL15 dropped packets: 0 TX: Bytes : 1728 Packets : 6 Wait : 0 Discarded packets: 0	/
		Tool Information ---------- Firmware Version : 20.43.1014 amBER Version : 3.2 MFT Version : mft 4.28.0-92	Operational Info ---------- State : Active Physical state : LinkUp Speed : IB-HDR Width : 4x FEC : RS-FEC - (544,514) + PLR Loopback Mode : No Loopback Auto Negotiation : ON	Supported Info ---------- Enabled Link Speed : 0x00000061 (HDR,EDR,SDR) Supported Cable Speed : 0x00000069 (HDR,EDR,FDR10,SDR)	Physical Counters and BER Info ---------- Time Since Last Clear [Min] : 2.7 Symbol Errors : 0 Symbol BER : 1.5E-255 Effective Physical Errors : 0 Effective Physical BER : 1.5E-255 Raw Physical Errors Per Lane : 87490,5382,8488,8790 Raw Physical BER : 3E-9 Link Down Counter : 0 Link Error Recovery Counter : 0