



OPTICAL TRANSCEIVER TEST REPORT

Tested by: Jessica.Yang | Date: 2022.06.03

1. Test Purpose

Test objects: QSFP-100G-LR4, Through the corresponding tests, the test parameters conform to the relevant industry standards, and the test transceivers can be used normally in Extreme brand equipment, laying the foundation for the subsequent cooperation with customers.

2. Test items

Test items		Test details
Compatibility Testing	Connectivity testing	The transceiver can connect both ends of the device normally, and the device port status is up.
	Parameter testing	The transceiver PN, VN, SN, and DDM information read by the device is consistent with the module tag description.

3. Test environment

3.1. Test samples

Vendor Name	Part Number	Serial Number	Transceiver Description
NADDOD	QSFP-100G-LR4	ACS2207070231	Cisco Compatible 100GBASE-LR4 QSFP28 100G 1310nm 10km DOM LC SMF Transceiver Module
NADDOD	QSFP-100G-LR4	ACS2207070232	Cisco Compatible 100GBASE-LR4 QSFP28 100G 1310nm 10km DOM LC SMF Transceiver Module

3.2. Test equipment

Equipment Brand	Equipment Model	Software version (running)
Cisco	Cisco Nexus N9K-C93180YC-EX	NX-OS:10.2.1(F)

4. Test data

4.1. Connectivity testing

Test Method	- check whether the device status is normal.; - Check whether the port device port LED is green; (individual brand port LED is yellow or white) - check whether the device port is normally linked up;
-------------	--

	4. Check whether the device port rate is up to standard.		
Test Data	<pre> *****Equipment model***** switch# show inventory NAME: "Chassis", DESCR: "Nexus9000 C93180YC-EX chassis" PID: N9K-C93180YC-EX , VID: V01 , SN: FDO21021SZV NAME: "Slot 1", DESCR: "48x10/25G + 6x40/100G Ethernet Module" PID: N9K-C93180YC-EX , VID: V01 , SN: FDO21021SZV NAME: "Power Supply 2", DESCR: "Nexus9000 C93180YC-EX chassis Power Supply" PID: NXA-PAC-650W-PE , VID: V01 , SN: LIT20140G26 NAME: "Fan 1", DESCR: "Nexus9000 C93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 2", DESCR: "Nexus9000 C93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 3", DESCR: "Nexus9000 C93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 4", DESCR: "Nexus9000 C93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A *****Port Status***** switch# show interface status include connected mgmt0 -- connected routed full 1000 -- Eth1/51 -- connected routed full 100G QSFP-100G-LR4 Eth1/52 -- connected routed full 100G QSFP-100G-LR4 </pre>		
Test Situation	Equipment model	Cisco Nexus N9K-C93180YC-EX	
	Port Number	Eth1/51	Eth1/52
	Port Status	connected	connected
	Port Link Rate	100G	100G
Test Conclusion	After testing, the above transceivers are normally connected on Cisco Nexus N9K-C93180YC-EX, the device port LEDs at both ends are always on white, the link is linkup.		
Remarks			

4.2. Parameter Testing

Test Method	1. check whether the basic information such as module manufacturer name, model name and serial number is correct. 2. check whether the module transmission distance, wavelength, type and other key parameters are correct. 3. check whether the module DDM parameters have exceeded the threshold value.																																																																								
Test Data	*****transceiver information and DDM information***** switch# show interface eth1/51-52 transceiver details Ethernet1/51 transceiver is present type is QSFP-100G-LR4 name is NADDOD part number is QSFP-100G-LR4 revision is A1 serial number is ACS2207070231 nominal bitrate is 25500 MBit/sec Link length supported for 9/125um fiber is 10 km cisco id is 17 cisco extended id number is 204 Lane Number:1 Network Lane SFP Detail Diagnostics Information (internal calibration) <table><tr><td></td><td>Current</td><td colspan="2">Alarms</td><td colspan="2">Warnings</td></tr><tr><td></td><td>Measurement</td><td>High</td><td>Low</td><td>High</td><td>Low</td></tr><tr><td>Temperature</td><td>47.35 C</td><td>80.00 C</td><td>-10.00 C</td><td>75.00 C</td><td>-5.00 C</td></tr><tr><td>Voltage</td><td>3.28 V</td><td>3.70 V</td><td>2.90 V</td><td>3.60 V</td><td>3.00 V</td></tr><tr><td>Current</td><td>40.53 mA</td><td>75.00 mA</td><td>10.00 mA</td><td>70.00 mA</td><td>15.00 mA</td></tr><tr><td>Tx Power</td><td>0.86 dBm</td><td>5.49 dBm</td><td>-5.80 dBm</td><td>4.49 dBm</td><td>-4.80 dBm</td></tr><tr><td>Rx Power</td><td>1.36 dBm</td><td>5.49 dBm</td><td>-14.08 dBm</td><td>4.49 dBm</td><td>-12.00 dBm</td></tr><tr><td colspan="6">Transmit Fault Count = 0</td></tr></table> Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning Lane Number:2 Network Lane SFP Detail Diagnostics Information (internal calibration) <table><tr><td></td><td>Current</td><td colspan="2">Alarms</td><td colspan="2">Warnings</td></tr><tr><td></td><td>Measurement</td><td>High</td><td>Low</td><td>High</td><td>Low</td></tr><tr><td>Temperature</td><td>47.35 C</td><td>80.00 C</td><td>-10.00 C</td><td>75.00 C</td><td>-5.00 C</td></tr><tr><td>Voltage</td><td>3.28 V</td><td>3.70 V</td><td>2.90 V</td><td>3.60 V</td><td>3.00 V</td></tr></table>		Current	Alarms		Warnings			Measurement	High	Low	High	Low	Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C	Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V	Current	40.53 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA	Tx Power	0.86 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm	Rx Power	1.36 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm	Transmit Fault Count = 0							Current	Alarms		Warnings			Measurement	High	Low	High	Low	Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C	Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V
	Current	Alarms		Warnings																																																																					
	Measurement	High	Low	High	Low																																																																				
Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C																																																																				
Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V																																																																				
Current	40.53 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA																																																																				
Tx Power	0.86 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm																																																																				
Rx Power	1.36 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm																																																																				
Transmit Fault Count = 0																																																																									
	Current	Alarms		Warnings																																																																					
	Measurement	High	Low	High	Low																																																																				
Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C																																																																				
Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V																																																																				

Current	40.80 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	-0.59 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	1.43 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:3 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current Measurement	Alarms		Warnings	
		High	Low	High	Low
Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C
Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V
Current	43.75 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	1.22 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	0.60 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:4 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current Measurement	Alarms		Warnings	
		High	Low	High	Low
Temperature	47.35 C	80.00 C	-10.00 C	75.00 C	-5.00 C
Voltage	3.28 V	3.70 V	2.90 V	3.60 V	3.00 V
Current	40.26 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	0.86 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	-0.03 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Ethernet1/52

transceiver is present
type is QSFP-100G-LR4
name is NADDOD
part number is QSFP-100G-LR4
revision is A1
serial number is ACS2207070232
nominal bitrate is 25500 MBit/sec

Link length supported for 9/125um fiber is 10 km

cisco id is 17

cisco extended id number is 204

Lane Number:1 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current	Alarms		Warnings	
	Measurement	High	Low	High	Low
Temperature	47.93 C	80.00 C	-10.00 C	75.00 C	-5.00 C
Voltage	3.31 V	3.70 V	2.90 V	3.60 V	3.00 V
Current	39.46 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	1.06 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	1.11 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm
Transmit Fault Count = 0					

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:2 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current	Alarms		Warnings	
	Measurement	High	Low	High	Low
Temperature	47.93 C	80.00 C	-10.00 C	75.00 C	-5.00 C
Voltage	3.31 V	3.70 V	2.90 V	3.60 V	3.00 V
Current	41.07 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	1.36 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	1.06 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm
Transmit Fault Count = 0					

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:3 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current	Alarms		Warnings	
	Measurement	High	Low	High	Low
Temperature	47.93 C	80.00 C	-10.00 C	75.00 C	-5.00 C
Voltage	3.31 V	3.70 V	2.90 V	3.60 V	3.00 V
Current	42.14 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA
Tx Power	1.32 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm
Rx Power	2.27 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm

	Transmit Fault Count = 0 ----- Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning Lane Number:4 Network Lane SFP Detail Diagnostics Information (internal calibration) ----- <table><thead><tr><th></th><th>Current Measurement</th><th colspan="2">Alarms</th><th colspan="2">Warnings</th></tr><tr><th></th><th></th><th>High</th><th>Low</th><th>High</th><th>Low</th></tr></thead><tbody><tr><td>Temperature</td><td>47.93 C</td><td>80.00 C</td><td>-10.00 C</td><td>75.00 C</td><td>-5.00 C</td></tr><tr><td>Voltage</td><td>3.31 V</td><td>3.70 V</td><td>2.90 V</td><td>3.60 V</td><td>3.00 V</td></tr><tr><td>Current</td><td>38.92 mA</td><td>75.00 mA</td><td>10.00 mA</td><td>70.00 mA</td><td>15.00 mA</td></tr><tr><td>Tx Power</td><td>0.69 dBm</td><td>5.49 dBm</td><td>-5.80 dBm</td><td>4.49 dBm</td><td>-4.80 dBm</td></tr><tr><td>Rx Power</td><td>1.72 dBm</td><td>5.49 dBm</td><td>-14.08 dBm</td><td>4.49 dBm</td><td>-12.00 dBm</td></tr><tr><td colspan="6">Transmit Fault Count = 0</td></tr></tbody></table> ----- Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning		Current Measurement	Alarms		Warnings				High	Low	High	Low	Temperature	47.93 C	80.00 C	-10.00 C	75.00 C	-5.00 C	Voltage	3.31 V	3.70 V	2.90 V	3.60 V	3.00 V	Current	38.92 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA	Tx Power	0.69 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm	Rx Power	1.72 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm	Transmit Fault Count = 0					
	Current Measurement	Alarms		Warnings																																													
		High	Low	High	Low																																												
Temperature	47.93 C	80.00 C	-10.00 C	75.00 C	-5.00 C																																												
Voltage	3.31 V	3.70 V	2.90 V	3.60 V	3.00 V																																												
Current	38.92 mA	75.00 mA	10.00 mA	70.00 mA	15.00 mA																																												
Tx Power	0.69 dBm	5.49 dBm	-5.80 dBm	4.49 dBm	-4.80 dBm																																												
Rx Power	1.72 dBm	5.49 dBm	-14.08 dBm	4.49 dBm	-12.00 dBm																																												
Transmit Fault Count = 0																																																	
Test situation	QSFP-100G-LR4																																																
	Vendor	NADDOD		NADDOD																																													
	Part Number	QSFP-100G-LR4		QSFP-100G-LR4																																													
	Serial Number	ACS2207070231		ACS2207070232																																													
	Wavelength	1330nm		1330nm																																													
	Link Length	10 km		10 km																																													
	Transceiver Type	QSFP-100G-LR4		QSFP-100G-LR4																																													
	DDM Alarm	NO		NO																																													
	DDM-Temp	47.35°C		47.93°C																																													
	DDM-Voltage	3.28V		3.31V																																													
	DDM-Tx Bias Current	40.53mA ,40.80mA ,43.75mA ,40.26mA		39.46mA ,41.07mA ,42.14mA ,38.92mA																																													
	DDM-Tx Power	0.86dBm ,-0.59dBm ,1.22dBm ,0.86dBm		1.06dBm ,1.36dBm ,1.32dBm ,0.69dBm																																													
	DDM-Rx Power	1.36dBm ,1.43dBm ,0.60dBm, -0.03dBm		1.11dBm ,1.06dBm ,2.27dBm ,1.72dBm																																													

Test Conclusion	After testing, the above Transceiver on Cisco Nexus N9K-C93180YC-EX vendor name, part number, serial number, DDM and other information is normally identified, the five DDM parameters do not exceed the level I and II thresholds, and the Transceiver operates normally.
Remarks	

5. Appendix

5.1 Transceiver compatibility testing standards

On the basis of the threshold range, the allowed deviation value should be within the standard range specified by the industry protocol.

Content	Details	Standard
Basic Information	Part Number	The part number read by the device is the same as the Part Number on the label. (If there are special requirements, the actual information shall prevail)
	Serial Number	The serial number read by the device is the same as the serial number on the label.(If there is special requirement, the actual information shall prevail).
	Vendor	The vendor name information read is NADDOD.(If there are special requirements, the actual information shall prevail).
	Transceiver Type	Transceiver information read by the device is consistent with that specified on the actual optics protocol specification (SFF-8636/SFF-8024).
	Wavelength	Transceiver wavelength information read by the device is consistent with the module description.
	Link Length	Transceiver maximum transmission distance information read by the device is consistent with the module description.
DDM Information	Temp	1. The actual DDM information is within the DDM threshold and there are no alarms. 2. The DDM threshold range is in accordance with the module specification.
	Voltage	
	Tx Bias Current	
	Tx Power	
	Rx Power	
Port Information	Port Rate	The data rate information read on the switch port corresponds to the actual rate of the optics.
	Port Status	When the transceiver is connected, the port status information is UP.
	Switch Port LED Status	The port indicators on both ends of the transceiver will be green when the transceiver is connected.
	Port Count	No packet loss, no error code, no CRC, no other ERROR packets.
Device Log		The device does not have any transceiver warning message.

Further Information :

Web www.naddod.com

Email For order requirements: sales@naddod.com

For cooperation: agency@naddod.com

For customer service: support@naddod.com

For other informations: info@naddod.com

For technical support: tech@naddod.com

Disclaimer

1. We are committed to continuous product improvement and feature upgrades, and the contents contained in this manual are subject to change without notice.

2. Nothing herein should be construed as constituting an additional warranty.

3. NADDOD assumes no responsibility for the use or reliability of equipment or software not provided by NADDOD.

Copyright © NADDOD.COM All Rights Reserved, 2022