OPTICAL TRANSCEIVER TEST REPORT

Tested by: Doubt.Zheng | Date: 2022.06.03

1. Test Purpose

Test objects: SFP-25G-A1,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	SFP-25G-A1	ACS22060700 730	1m 25G SFP28 Active Optical Cable

3.2. Test equipment

Equipment Brand	Equipment Model	Software version (running)
Cisco	Cisco Nexus N9K-C93180YC-EX	NXOS: version 9.2(3)

4. Test data

4.1. Connectivity testing

Test Method	1. check whether the device status is normal.; 2. Check whether the port device port LED is green; (individual brand port LED is yellow or white) 3. check whether the device port is normally linked up; 4. Check whether the device port rate is up to standard.
Test Data	switch# show inventory NAME: "Chassis", DESCR: "Nexus9000 93180YC-EX chassis" PID: N9K-C93180YC-EX , VID: V01 , SN: FDO21192HKE NAME: "Slot 1", DESCR: "48x10/25G + 6x40/100G Ethernet Module" PID: N9K-C93180YC-EX , VID: V01 , SN: FDO21192HKE NAME: "Power Supply 1", DESCR: "Nexus9000 93180YC-EX chassis Power Supply" PID: NXA-PAC-650W-PE , VID: V02 , SN: LIT21182CKL NAME: "Power Supply 2", DESCR: "Nexus9000 93180YC-EX chassis Power Supply" PID: NXA-PAC-650W-PE , VID: V02 , SN: LIT21182G55 NAME: "Fan 1", DESCR: "Nexus9000 93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 2", DESCR: "Nexus9000 93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 3", DESCR: "Nexus9000 93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A NAME: "Fan 4", DESCR: "Nexus9000 93180YC-EX chassis Fan Module" PID: NXA-FAN-30CFM-F , VID: V01 , SN: N/A switch# show interface status -- Port Name Status Vlan Duplex Speed Type -- mgmt0 -- connected routed full 1000 -- -- Port Name Status Vlan Duplex Speed Type -- Eth1/1 -- xcvrAbsen routed auto auto -- Eth1/2 -- xcvrAbsen routed auto auto --

Eth1/3	--		xcvrAbsen routed	auto	auto	--	
Eth1/4	--		xcvrAbsen routed	auto	auto	--	
Eth1/5	--		xcvrAbsen routed	auto	auto	--	
Eth1/6	--		xcvrAbsen routed	auto	auto	--	
Eth1/7	--		xcvrAbsen routed	auto	auto	--	
Eth1/8	--		xcvrAbsen routed	auto	auto	--	
Eth1/9	--		xcvrAbsen routed	auto	auto	--	
Eth1/10	--		xcvrAbsen routed	auto	auto	--	
Eth1/11	--		xcvrAbsen routed	auto	auto	--	
Eth1/12	--		xcvrAbsen routed	auto	auto	--	
Eth1/13	--		xcvrAbsen routed	auto	auto	--	
Eth1/14	--		xcvrAbsen routed	auto	auto	--	
Eth1/15	--		xcvrAbsen routed	auto	auto	--	
Eth1/16	--		xcvrAbsen routed	auto	auto	--	
Eth1/17	--		xcvrAbsen routed	auto	auto	--	
Eth1/18	--		xcvrAbsen routed	auto	auto	--	
Eth1/19	--		xcvrAbsen routed	auto	auto	--	
Eth1/20	--		xcvrAbsen routed	auto	auto	--	
Eth1/21	--		xcvrAbsen routed	auto	auto	--	
Eth1/22	--		xcvrAbsen routed	auto	auto	--	
Eth1/23	--		xcvrAbsen 20	auto	auto	--	
Eth1/24	--		xcvrAbsen routed	auto	auto	--	
Eth1/25	--		xcvrAbsen routed	auto	auto	--	
Eth1/26	--		xcvrAbsen routed	auto	auto	--	
Eth1/27	--		xcvrAbsen 20	auto	auto	--	
Eth1/28	--		xcvrAbsen routed	auto	auto	--	
Eth1/29	--		xcvrAbsen routed	auto	auto	--	
Eth1/30	--		xcvrAbsen routed	auto	auto	--	
Eth1/31	--		xcvrAbsen routed	auto	auto	--	
Eth1/32	--		xcvrAbsen routed	auto	auto	--	
Eth1/33	--		xcvrAbsen routed	auto	auto	--	
Eth1/34	--		xcvrAbsen routed	auto	auto	--	
Eth1/35	--		xcvrAbsen routed	auto	auto	--	
Eth1/36	--		xcvrAbsen routed	auto	auto	--	
Eth1/37	--		xcvrAbsen routed	auto	auto	--	
Eth1/38	--		xcvrAbsen routed	auto	auto	--	
Eth1/39	--		xcvrAbsen routed	auto	auto	--	
Eth1/40	--		xcvrAbsen routed	auto	auto	--	
Eth1/41	--		xcvrAbsen routed	auto	auto	--	
Eth1/42	--		xcvrAbsen routed	auto	auto	--	
Eth1/43	--		xcvrAbsen routed	auto	auto	--	
Eth1/44	--		xcvrAbsen routed	auto	auto	--	
Eth1/45	--		xcvrAbsen routed	auto	auto	--	
Eth1/46	--		xcvrAbsen routed	auto	auto	--	
Eth1/47	--		connected routed	full	25G	SFP-H25GB-AOC1M	

	Eth1/48	--	connected routed	full	25G	SFP-H25GB-AOC1M	
	Eth1/49	--	xcvrAbsen routed	auto	auto	--	
	Eth1/50	--	xcvrAbsen routed	auto	auto	--	
	Eth1/51	--	xcvrAbsen routed	auto	auto	--	
	Eth1/52	--	xcvrAbsen routed	auto	auto	--	
	Eth1/53	--	xcvrAbsen routed	auto	auto	--	
	Eth1/54	--	xcvrAbsen routed	auto	auto	--	

Test Situation	SFP-25G-A1		
	Port Number	Eth1/47	Eth1/48
	Port Status	connected	connected
	Port Link Rate	25G	25G
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 green Light,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	switch# show interface ethernet 1/47 transceiver details
	Ethernet1/47
	    transceiver is present
	    type is SFP-H25GB-AOC1M
	    name is NADDOD
	    part number is SFP-25G-A1
	    revision is A1
	    serial number is ACS22060700730
	    nominal bitrate is 25500 MBit/sec
	    cable type is optical
	    cisco id is 3
	    cisco extended id number is 4
	
	    DOM is not supported

```
switch# show interface ethernet 1/48 transceiver details
Ethernet1/48
    transceiver is present
    type is SFP-H25GB-AOC1M
    name is NADDOD
    part number is SFP-25G-A1
    revision is A1
    serial number is ACS22060700730
    nominal bitrate is 25500 MBit/sec
    cable type is optical
    cisco id is 3
    cisco extended id number is 4

    DOM is not supported
```

	SFP-25G-A1	
	Vendor	NADDOD	NADDOD
	Part Number	SFP-25G-A1	SFP-25G-A1
Test situation	Serial Number	ACS22060700730	ACS22060700730
	Wavelength	/	/
	Link Length	/	/
	Transceiver Type	SFP-H25GB-AOC1M	SFP-H25GB-AOC1M
Test Conclusion	After testing, the above Fiber Optic Cable on Cisco Nexus N9K-C93180YC-EX vendor name, part number, serial number DDM and other information is normally identified, the Fiber Optic Cable operates normally.		
Remarks	Cisco Nexus switch can't read fiber optic wavelengths.		

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.

NADDOD

Further Information：

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