NDD

OPTICAL TRANSCEIVER TEST REPORT

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1. Test Purpose

Test objects: SFP-10G-CU1,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-10G-CU1	ACS22060700 660	1m 10G SFP+ Passive Direct Attach Copper Twinax 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# sh interface status

--------------------------------------------------------------------------------
Port          Name               Status   Vlan     Duplex  Speed   Type
--------------------------------------------------------------------------------
mgmt0         --                 notconnec routed    auto    auto    --

--------------------------------------------------------------------------------
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	--	connected routed	full	10G	SFP-H10GB-C U1M	
Eth1/11	--	xcvrAbsen routed	auto	auto	--	
Eth1/12	--	connected routed	full	10G	SFP-H10GB-C U1M	
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 routed	auto	auto	--	
Eth1/24	--	xcvrAbsen routed	auto	auto	--	
Eth1/25	--	xcvrAbsen routed	auto	auto	--	
Eth1/26	--	xcvrAbsen routed	auto	auto	--	
Eth1/27	--	xcvrAbsen routed	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	--	xcvrAbsen routed	auto	auto	--	
	Eth1/48	--	xcvrAbsen routed	auto	auto	--	
	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	--	

	SFP-10G-CU1		
Test Situation	Port Number	Eth1/10	Eth1/12
	Port Status	connected	connected
	Port Link Rate	10G	10G
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 1/6 transceiver details
	Ethernet1/10
	    transceiver is present
	    type is SFP-H10GB-CU1M
	    name is NADDOD
	    part number is SFP-10G-CU1
	    revision is 01
	    serial number is ACS22060700660
	    nominal bitrate is 25500 MBit/sec
	    Link length supported for copper is 1 m
	    cable type is CA-S
	    cisco id is 3

cisco extended id number is 4

DOM is not supported

switch# show interface ethernet 1/26 transceiver details
Ethernet1/12
    transceiver is present
    type is SFP-H10GB-CU1M
    name is NADDOD
    part number is SFP-10G-CU1
    revision is 01
    serial number is ACS22060700660
    nominal bitrate is 25500 MBit/sec
    Link length supported for copper is 1 m
    cable type is CA-S
    cisco id is 3
    cisco extended id number is 4

DOM is not supported

Test situation	SFP-10G-CU1		
	Vendor	NADDOD	NADDOD
	Part Number	SFP-10G-CU1	SFP-10G-CU1
	Serial Number	ACS22060700660	ACS22060700660
	Wavelength	/	/
	Link Length	1m	1m
	Transceiver Type	SFP-H10GB-CU1M	SFP-H10GB-CU1M
Test Conclusion	After testing, the above Copper Cable on Cisco Nexus N9K-C93180YC-EX vendor name, part number, serial number and other information is normally identified, the Copper Cable operates normally.		
Remarks	Copper cables do not have lasers, so there are no optical parameters such as wavelength and DDM.		

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-8472/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.