



# OPTICAL TRANSCEIVER TEST REPORT

Tested by: Betty | Date: 2022.10.10

## 1. Test Purpose

Test objects: SFP-10G-DW80, through the corresponding tests, the test parameters conform to the relevant industry standards, and the test transceivers can be used normally in Cisco 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-DW80	ACS22060700580	10GBASE-DW80 SFP+ 1563.86nm 80km Duplex LC Transceiver Module for SMF
NADDOD	SFP-10G-DW80	ACS22060700581	10GBASE-DW80 SFP+ 1563.86nm 80km Duplex LC Transceiver Module for SMF

### 3.2. Test equipment

Equipment Brand	Equipment Model	Software version (running)
Cisco	Cisco N9K-C93180YC-EX	BIOS: version 07.65 NXOS: version 9.3(5)

## 4. Test data

### 4.1. Connectivity testing

<p>Test Method</p>	<ol style="list-style-type: none"> <li>1. Check whether the device status is normal;</li> <li>2. Check whether the port device port LED is green; (individual brand port LED is yellow or white)</li> <li>3. Check whether the device port is normally linked up;</li> <li>4. Check whether the device port rate is up to standard.</li> </ol>
<p>Test Data</p>	<pre> switch# show inv 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 int st ----- 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        --                  connected  trunk   full    10G    10Gbase-ZR Eth1/8        --                  xcvrAbsen  routed  auto    auto   -- Eth1/9        --                  connected  trunk   full    10G    10Gbase-ZR Eth1/10       --                  xcvrAbsen  routed  auto    auto   -- Eth1/11       --                  xcvrAbsen  routed  auto    auto   -- Eth1/12       --                  xcvrAbsen  routed  auto    auto   -- </pre>

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	--
Vlan1	--	down	routed	auto	auto	--
Test	SFP-10G-DW80					

Situation	Port Number	Port 7	Port 9
	Port Status	active	active
	Port Link Rate	10G	10G
Test Conclusion	After testing, the above transceivers are normally connected on Cisco N9K-C93180YC-EX, the device port LEDs at both ends are always on green, the link is linkup.		
Remarks			

## 4.2. Parameter Testing

Test Method	<ol style="list-style-type: none"> <li>check whether the basic information such as module manufacturer name, model name and serial number is correct.</li> <li>check whether the module transmission distance, wavelength, type and other key parameters are correct.</li> <li>check whether the module DDM parameters have exceeded the threshold value.</li> </ol>
Test Data	<p>Port : 7</p> <pre>switch# show int eth1/7 transceiver details Ethernet1/7   transceiver is present   type is 10Gbase-ZR   name is NADDOD   part number is SFP-10G-DW80   revision is 0002   serial number is ACS22060700580   nominal bitrate is 11100 MBit/sec   Link length supported for 9/125um fiber is 80 km   cisco id is 3   cisco extended id number is 4</pre> <p>SFP Detail Diagnostics Information (internal calibration)</p> <pre>-----               Current          Alarms          Warnings               Measurement      High         Low         High         Low ----- Temperature  27.40 C           95.00 C     -50.00 C    85.00 C     -40.00 C Voltage      3.30 V                3.63 V      2.97 V      3.46 V      3.13 V Current      40.61 mA             110.00 mA   1.00 mA     100.00 mA   1.00 mA Tx Power     -2.95 dBm              3.49 dBm   -10.22 dBm  2.49 dBm    -8.21 dBm Rx Power     -1.24 dBm              3.49 dBm   -16.57 dBm  2.49 dBm    -14.43 dBm Transmit Fault Count = 0 -----</pre>

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

Port : 9

switch# show int eth1/9 transceiver details

Ethernet1/9

```

transceiver is present
type is 10Gbase-ZR
name is NADDOD
part number is SFP-10G-DW80
revision is 0002
serial number is ACS22060700581
nominal bitrate is 11100 MBit/sec
Link length supported for 9/125um fiber is 80 km
cisco id is 3
cisco extended id number is 4
    
```

SFP Detail Diagnostics Information (internal calibration)

	Current		Alarms		Warnings	
	Measurement	High	Low	High	Low	
Temperature	28.65 C	95.00 C	-50.00 C	85.00 C	-40.00 C	
Voltage	3.32 V	3.63 V	2.97 V	3.46 V	3.13 V	
Current	44.60 mA	110.00 mA	1.00 mA	100.00 mA	1.00 mA	
Tx Power	-2.87 dBm	3.49 dBm	-10.22 dBm	2.49 dBm	-8.21 dBm	
Rx Power	-1.55 dBm	3.49 dBm	-16.57 dBm	2.49 dBm	-14.43 dBm	
Transmit Fault Count	= 0					

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

Test situation	SFP-10G-DW80		
	Vendor	NADDOD	NADDOD
	Part Number	SFP-10G-DW80	SFP-10G-DW80
	Serial Number	ACS22060700580	ACS22060700581
	Wavelength	1563.86nm	1563.86nm
	Link Length	80km	80km
	Transceiver Type	10Gbase-ZR	10Gbase-ZR

	DDM Alarm	NO	NO
	DDM-Temp	27.40°C	28.65°C
	DDM-Voltage	3.30 V	3.32 V
	DDM-Tx Bias Current	40.61mA	44.60mA
	DDM-Tx Power	-2.95dBm	-2.87dBm
	DDM-Rx Power	-1.24dBm	-1.55dBm
Test Conclusion	After testing, the above Transceiver on Cisco 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-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.



## Further Information :

---

Web [www.naddod.com](http://www.naddod.com)

Email For order requirements: [sales@naddod.com](mailto:sales@naddod.com)

For cooperation: [agency@naddod.com](mailto:agency@naddod.com)

For customer service: [support@naddod.com](mailto:support@naddod.com)

For other informations: [info@naddod.com](mailto:info@naddod.com)

For technical support: [tech@naddod.com](mailto: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