



# OPTICAL TRANSCEIVER TEST REPORT

Tested by: Betty | Date: 2022.10.10

## 1. Test Purpose

Test objects: SFP-10G-CW10-1470, 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-CW10-1470 | ACS22060700530 | 10GBASE-CW10 SFP+ 1470nm 10km Duplex LC Transceiver Module for SMF |
| NADDOD      | SFP-10G-CW10-1470 | ACS22060700531 | 10GBASE-CW10 SFP+ 1470nm 10km Duplex LC Transceiver Module for SMF |

### 3.2. Test equipment

| Equipment Brand | Equipment Model       | Software version (running)                  |
|-----------------|-----------------------|---|
| Cisco           | Cisco N9K-C93180YC-EX | BIOS: version 07.59<br>NXOS: version 9.2(3) |

## 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        --                  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   -- </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 | -- | connected | routed | full | 10G  | CWDM-SFP10G |
| -1470   |    |           |        |      |      |             |
| Eth1/33 | -- | xcvrAbsen | routed | auto | auto | --          |
| Eth1/34 | -- | connected | routed | full | 10G  | CWDM-SFP10G |
| -1470   |    |           |        |      |      |             |
| 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 Situation  | SFP-10G-CW10-1470   |         |         |
|                 | Port Number   | Port 32 | Port 34 |
|                 | 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 : 32</p> <pre>switch# show int eth1/32 transceiver details Ethernet1/32   transceiver is present   type is CWDM-SFP10G-1470   name is NADDOD   part number is SFP-10G-CW10   revision is B   serial number is ACS22060700530   nominal bitrate is 10300 MBit/sec   Link length supported for 9/125um fiber is 10 km   cisco id is 3   cisco extended id number is 4</pre> <p style="text-align: center;">SFP Detail Diagnostics Information (internal calibration)</p> <pre>-----               Current           Alarms           Warnings               Measurement       High         Low         High         Low ----- Temperature  39.86 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      44.61 mA           110.00 mA    1.00 mA     100.00 mA    1.00 mA Tx Power     -1.37 dBm            3.49 dBm    -10.22 dBm   2.49 dBm     -8.21 dBm Rx Power     -0.86 dBm            3.49 dBm    -16.57 dBm   2.49 dBm    -14.43 dBm</pre> |

Transmit Fault Count = 0

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

Port : 34

switch# show int eth1/34 transceiver details

Ethernet1/34

transceiver is present  
 type is CWDM-SFP10G-1470  
 name is NADDOD  
 part number is SFP-10G-CW10  
 revision is B  
 serial number is ACS22060700531  
 nominal bitrate is 10300 MBit/sec  
 Link length supported for 9/125um fiber is 10 km  
 cisco id is 3  
 cisco extended id number is 4

SFP Detail Diagnostics Information (internal calibration)

|             | Current Measurement | Alarms    |            | Warnings  |            |
|-------------|---------------------|-----------|------------|-----------|------------|
|             |                     | High      | Low        | High      | Low        |
| Temperature | 39.72 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     | 44.55 mA            | 110.00 mA | 1.00 mA    | 100.00 mA | 1.00 mA    |
| Tx Power    | -1.54 dBm           | 3.49 dBm  | -10.22 dBm | 2.49 dBm  | -8.21 dBm  |
| Rx Power    | -0.67 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-CW10-1470 |                |                |
|-------------------|----------------|----------------|
| Vendor            | NADDOD         | NADDOD         |
| Part Number       | SFP-10G-CW10   | SFP-10G-CW10   |
| Serial Number     | ACS22060700530 | ACS22060700531 |
| Wavelength        | 1470nm         | 1470nm         |
| Link Length       | 10km           | 10km           |

|                     |  |                  |
|---------------------|--|------------------|
| Transceiver Type    | CWDM-SFP10G-1470   | CWDM-SFP10G-1470 |
| DDM Alarm           | NO   | NO               |
| DDM-Temp            | 39.86°C  | 39.72°C          |
| DDM-Voltage         | 3.30 V   | 3.30 V           |
| DDM-Tx Bias Current | 44.61mA  | 44.55mA          |
| DDM-Tx Power        | -1.37dBm   | -1.54dBm         |
| DDM-Rx Power        | -0.86dBm   | -0.67dBm         |
| 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.   |
|                   | Voltage          |  |

|                  |                        |  |
|------------------|------------------------|--|
|                  | Tx Bias Current        | 2. The DDM threshold range is in accordance with the module specification.                           |
|                  | 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