

SFP-10G-T-30

TEST REPORT (Cisco)

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1. Test Purpose

By building test scenarios and simulating the customer's usage environment, we test whether the module performance meets the customer's requirements.

2. Test Result Summary

Table 2-1: Test Result Summary

Test Items	Test Result
Muti-Version	Pass
Connectivity	Pass
Module Basic Information	Pass

3. Test Equipment Used

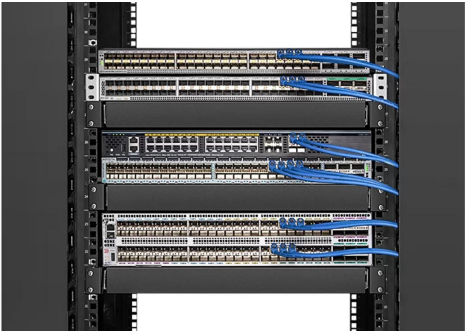
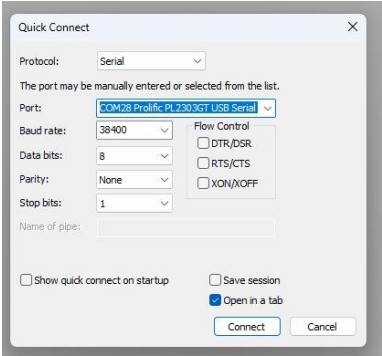
Table 3-1: Test Equipment Used

Vendor	Device	Soft Version/Compatible Brand	Serial Number
Cisco Switch	C9500-24Y4C	17.12.03	/
Intel Network Interface Card (NIC)	Intel XXV710-DA2	9.50 0x8000f177	/
FS Optical Transceiver Module	SFP-10G-T-30	Cisco Compatible	Y2440003668 Y2440003688
FS Server	RS7260	/	/

4. Test Data

4.1 Test Scenario

Table 4-1: Test Scenario

Test Topology	Network topology:  Interoperability test scenario : 
Test Premise	1. Confirm the brand, quantity and placement of the switches to be tested. 2. Prepare control cables, test software and optical fiber patch cords. Power on the switches in advance. 3. Locate the Console port on the switch, which is usually marked as "CON" on the switch, although some switches may display it as "IOIO" or a computer monitor icon, etc. Use a control cable to connect the switch to the computer.  4. Before connecting the software, it is necessary to confirm the connection port of the control cable. Go to the computer device manager, click on the ports (COM and LPT) to view the ports. After confirming the ports, proceed with the next step.
Test Method	Click to open the SecureCRT Portable software and enter the quick connection interface. ① Protocol selection: Serial ② Port selection: The same as the port you viewed in the previous step ③ Baud rate selection: The same as the baud rate of the port on the target switch ④ Flow control: Do not check this option The remaining configurations can keep the default values. 

Test Steps	① Insert the module into the corresponding rate port of the switch, and connect the TX-RX ends with an optical fiber jumper or an MTP self-loop device. Observe whether the module is connected. If not connected, please check the jumper connection or the switch port configuration (login to the switch is required). ② Enter the test interface, input the account and password, log in to the switch and enter privileged mode. ③ According to the switch command configuration table, input the corresponding test command and view the relevant information: port status (connectivity), connection rate, alarm status, module basic information, etc. Determine whether it meets the requirements.
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4.2 Test Result

Table 4-2: Test Result

Test Information

1. Read the switch model name and software version, and read the status of all ports on the switch
C9500-24Y4C#show version
Cisco IOS XE Software, Version 17.12.03
Cisco IOS Software [Dublin], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 17.12.3, RELEASE SOFTWARE (fc7)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2024 by Cisco Systems, Inc.
Compiled Wed 20-Mar-24 15:40 by mcpre

C9500-24Y4C#show interfaces status

Port	Name	Status	Vlan	Duplex	Speed	Type
Twe1/0/1		notconnect	routed	auto	auto	unknown
Twe1/0/2		notconnect	routed	auto	auto	unknown
Twe1/0/3		notconnect	routed	full	auto	unknown
Twe1/0/4		notconnect	routed	auto	auto	unknown
Twe1/0/5		notconnect	routed	auto	auto	unknown
Twe1/0/6		notconnect	1	auto	25G	unknown
Twe1/0/7		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/8		notconnect	1	auto	auto	unknown
Twe1/0/9		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/10		notconnect	1	auto	auto	unknown
Twe1/0/11		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/12		notconnect	1	auto	auto	unknown
Twe1/0/13		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/14		notconnect	1	auto	1000	unknown
Twe1/0/15		notconnect	routed	full	10G	unknown
Twe1/0/16		notconnect	1	full	a-10G	unknown
Twe1/0/17		notconnect	1	auto	auto	unknown
Twe1/0/18		notconnect	1	auto	auto	unknown
Twe1/0/19		notconnect	1	full	10G	unknown
Twe1/0/20		notconnect	1	full	auto	unknown
Twe1/0/21		notconnect	routed	auto	auto	unknown
Twe1/0/22		notconnect	routed	full	a-25G	unknown
Twe1/0/23		notconnect	1	auto	auto	unknown
Twe1/0/24		notconnect	1	auto	auto	unknown
Hu1/0/25		notconnect	1	full	100G	unknown
Hu1/0/26		notconnect	1	full	100G	unknown
Hu1/0/27		notconnect	routed	auto	auto	unknown
Hu1/0/28		notconnect	1	auto	auto	unknown

Test Information	2. Verify the NIC port status <pre>[root@RS5220 ~]# ethtool enp134s0f0 Settings for enp134s0f0: Supported ports: [FIBRE] Supported link modes: 10000baseT/Full Supported pause frame use: Symmetric Receive-only Supports auto-negotiation: No Supported FEC modes: Not reported Advertised link modes: 10000baseT/Full Advertised pause frame use: No Advertised auto-negotiation: No Advertised FEC modes: Not reported Speed: 10000Mb/s Duplex: Full Auto-negotiation: off Port: Direct Attach Copper PHYAD: 0 Transceiver: internal Supports Wake-on: d Wake-on: d Current message level: 0x00000007 (7) drv probe link Link detected: yes [root@RS5220 ~]# ethtool enp134s0f1 Settings for enp134s0f1: Supported ports: [FIBRE] Supported link modes: 10000baseT/Full Supported pause frame use: Symmetric Receive-only Supports auto-negotiation: No Supported FEC modes: Not reported Advertised link modes: 10000baseT/Full Advertised pause frame use: No Advertised auto-negotiation: No Advertised FEC modes: Not reported Speed: 10000Mb/s Duplex: Full Auto-negotiation: off Port: Direct Attach Copper PHYAD: 0 Transceiver: internal Supports Wake-on: d Wake-on: d Current message level: 0x00000007 (7) drv probe link Link detected: yes</pre>
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3. Read the module's basic information from the switch side

Test
Information

IDPROM for transceiver TwentyFiveGigE1/0/7:

Description = SFP or SFP+ optics (type 3)

Transceiver Type: = SFP+ 10GBASE-SR (273)

Product Identifier (PID) = SFP-10G-SR

Vendor Revision =

Serial Number (SN) = Y2440003668

Vendor Name = FS

Vendor OUI (IEEE company ID) = 00.00.00 (0)

CLEI code = COUIA8NCAA

Cisco part number = 10-2415-03

Device State = Enabled.

Date code (yy/mm/dd) = 24/10/22

Connector type = LC.

Encoding = 64B/66B (6)

Nominal bitrate = (10300 Mbits/s)

Minimum bit rate as % of nominal bit rate = 88 % of 10300 Mbits/s

Maximum bit rate as % of nominal bit rate = 10 % of 10300 Mbits/s

The transceiver type is 273

Link reach for 9u fiber (km) = SX(550/270m) (0)

1xFC-MM(500/300m) (0)

2xFC-MM(300/150m) (0)

ESCON-MM(2km) (0)

Link reach for 9u fiber (m) = SX(550/270m) (0)

1xFC-MM(500/300m) (0)

2xFC-MM(300/150m) (0)

ESCON-MM(2km) (0)

Nominal laser wavelength = 850 nm.

DWDM wavelength fraction = 850.0 nm.

Supported options = Tx disable

Tx fault signal

Loss of signal (standard implementation)

Supported enhanced options = Alarms for monitored paramete

Software Tx disable

Software Tx fault monitoring

Software Rx LOS monitoring

Diagnostic monitoring = Digital diagnostics supported

Diagnostics are internally calibrated

Rx power measured is "Average power"

Transceiver temperature operating range = not specified

Minimum operating temperature = 0 C

Maximum operating temperature = 70 C

High temperature alarm threshold = +125.000 C

High temperature warning threshold = +100.000 C

Low temperature warning threshold = -45.000 C

Low temperature alarm threshold = -50.000 C

High voltage alarm threshold = 3600.0 mVolts

High voltage warning threshold = 3500.0 mVolts

Low voltage warning threshold = 3000.0 mVolts

Low voltage alarm threshold = 2900.0 mVolts

High laser bias current alarm threshold = 25.000 mAmps

High laser bias current warning threshold = 20.000 mAmps

Low laser bias current warning threshold = 1.200 mAmps

Low laser bias current alarm threshold = 1.000 mAmps

High transmit power alarm threshold = 2.0 dBm

High transmit power warning threshold = 0.0 dBm

Low transmit power warning threshold = -7.5 dBm

Low transmit power alarm threshold = -9.5 dBm

High receive power alarm threshold = 2.0 dBm

High receive power warning threshold = 0.0 dBm

Low receive power warning threshold = -13.0 dBm

Low receive power alarm threshold = -15.0 dBm

External Calibration: bias current slope = 1.000

External Calibration: bias current offset = 0

Test Information	IDPROM for transceiver TwentyFiveGigE1/0/9: Description = SFP or SFP+ optics (type 3) Transceiver Type: = SFP+ 10GBASE-SR (273) Product Identifier (PID) = SFP-10G-SR Vendor Revision = Serial Number (SN) = Y2440003688 Vendor Name = FS Vendor OUI (IEEE company ID) = 00.00.00 (0) CLEI code = COUIA8NCAA Cisco part number = 10-2415-03 Device State = Enabled. Date code (yy/mm/dd) = 24/10/22 Connector type = LC. Encoding = 64B/66B (6) Nominal bitrate = (10300 Mbits/s) Minimum bit rate as % of nominal bit rate = 88 % of 10300 Mbits/s Maximum bit rate as % of nominal bit rate = 10 % of 10300 Mbits/s The transceiver type is 273 Link reach for 9u fiber (km) = SX(550/270m) (0) 1xFC-MM(500/300m) (0) 2xFC-MM(300/150m) (0) ESCON-MM(2km) (0) Link reach for 9u fiber (m) = SX(550/270m) (0) 1xFC-MM(500/300m) (0) 2xFC-MM(300/150m) (0) ESCON-MM(2km) (0) Nominal laser wavelength = 850 nm. DWDM wavelength fraction = 850.0 nm. Supported options = Tx disable Tx fault signal Loss of signal (standard implementation) Supported enhanced options = Alarms for monitored parameters Software Tx disable Software Tx fault monitoring Software Rx LOS monitoring Diagnostic monitoring = Digital diagnostics supported Diagnostics are internally calibrated Rx power measured is "Average power" Transceiver temperature operating range = not specified Minimum operating temperature = 0 C Maximum operating temperature = 70 C High temperature alarm threshold = +125.000 C High temperature warning threshold = +100.000 C Low temperature warning threshold = -45.000 C Low temperature alarm threshold = -50.000 C High voltage alarm threshold = 3600.0 mVolts High voltage warning threshold = 3500.0 mVolts Low voltage warning threshold = 3000.0 mVolts Low voltage alarm threshold = 2900.0 mVolts High laser bias current alarm threshold = 25.000 mAmps High laser bias current warning threshold = 20.000 mAmps Low laser bias current warning threshold = 1.200 mAmps Low laser bias current alarm threshold = 1.000 mAmps High transmit power alarm threshold = 2.0 dBm High transmit power warning threshold = 0.0 dBm Low transmit power warning threshold = -7.5 dBm Low transmit power alarm threshold = -9.5 dBm High receive power alarm threshold = 2.0 dBm High receive power warning threshold = 0.0 dBm Low receive power warning threshold = -13.0 dBm Low receive power alarm threshold = -15.0 dBm External Calibration: bias current slope = 1.000 External Calibration: bias current offset = 0
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Test Information	4. Read the module's basic information from the NIC side <pre>[root@RS5220 ~]# ethtool -m enp134s0f1 Identifier : 0x03 (SFP) Extended identifier : 0x04 (GBIC/SFP defined by 2-wire interface ID) Connector : 0x22 (RJ45) Transceiver codes : 0x00 0x00 0x00 0x00 0x04 0x00 0x00 0x00 Transceiver type : Passive Cable Encoding : 0x06 (64B/66B) BR, Nominal : 10300MBd Rate identifier : 0x02 (8/4/2G Rx Rate_Select only) Length (SMF,km) : 0km Length (SMF) : 0m Length (50um) : 0m Length (62.5um) : 0m Length (Copper) : 30m Length (OM3) : 0m Passive Cu complnce. : 0x00 (unspecified) [SFF-8472 rev10.4 only] Vendor name : FS Vendor OUI : 00:1b:21 Vendor PN : SFP-10G-T-30 Vendor rev : A Option values : 0x00 0x3a Option : RX_LOS implemented Option : TX_FAULT implemented Option : TX_DISABLE implemented Option : RATE_SELECT implemented BR margin, max : 0% BR margin, min : 0% Vendor SN : A2407030456 Date code : 240712 [root@RS5220 ~]# ethtool -m enp134s0f0 Identifier : 0x03 (SFP) Extended identifier : 0x04 (GBIC/SFP defined by 2-wire interface ID) Connector : 0x22 (RJ45) Transceiver codes : 0x00 0x00 0x00 0x00 0x04 0x00 0x00 0x00 Transceiver type : Passive Cable Encoding : 0x06 (64B/66B) BR, Nominal : 10300MBd Rate identifier : 0x02 (8/4/2G Rx Rate_Select only) Length (SMF,km) : 0km Length (SMF) : 0m Length (50um) : 0m Length (62.5um) : 0m Length (Copper) : 30m Length (OM3) : 0m Passive Cu complnce. : 0x00 (unspecified) [SFF-8472 rev10.4 only] Vendor name : FS Vendor OUI : 00:1b:21 Vendor PN : SFP-10G-T-30 Vendor rev : A Option values : 0x00 0x3a Option : RX_LOS implemented Option : TX_FAULT implemented Option : TX_DISABLE implemented Option : RATE_SELECT implemented BR margin, max : 0% BR margin, min : 0% Vendor SN : A2407030457 Date code : 240712 [root@RS5220 ~]#</pre>
Test Conclusion	After completing the above test content, all the test information should be copied and pasted into a TXT document.
Remarks	