

SFP-10GM-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

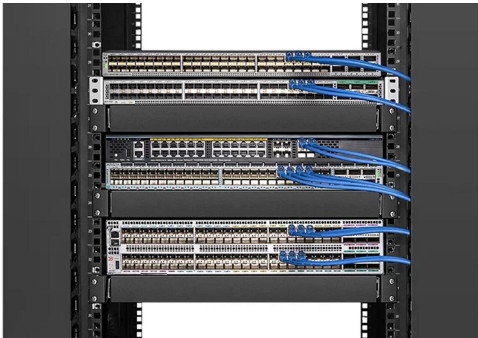
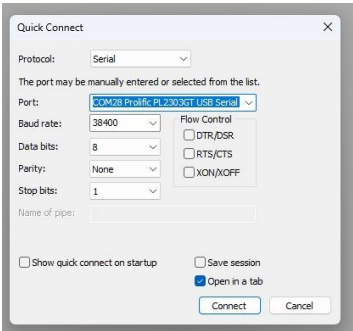
Table 3-1: Test Equipment Used

Vendor	Device	Soft Version/Compatible Brand	Serial Number
Cisco Switch	C9500-24Y4C	17.07.01	/
Intel Network Interface Card (NIC)	Intel XXV710-DA2	9.50 0x8000f177	/
FS Optical Transceiver Module	SFP-10GM-T-30	Cisco Compatible	A1920000032 A1920000033
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 "IOIOI" 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 17.07.01
Cisco IOS Software [Cupertino], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 17.7.1, RELEASE SOFTWARE (fc5)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2021 by Cisco Systems, Inc.
Compiled Sat 04-Dec-21 15:59 by mcpre

C9500-24Y4C#show interfaces status

Port	Name	Status	Vlan	Duplex	Speed	Type
Twe1/0/1		connected	routed	full	10G	SFP-10GBase-SR
Twe1/0/2		connected	routed	full	10G	SFP-10GBase-SR
Twe1/0/3		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/4		connected	1	full	10G	SFP-10GBase-SR
Twe1/0/5		notconnect	1	auto	auto	unknown
Twe1/0/6		notconnect	1	auto	auto	unknown
Twe1/0/7		notconnect	1	auto	auto	unknown
Twe1/0/8		notconnect	1	auto	auto	unknown
Twe1/0/9		notconnect	1	auto	auto	unknown
Twe1/0/10		notconnect	1	auto	auto	unknown
Twe1/0/11		notconnect	1	auto	auto	unknown
Twe1/0/12		notconnect	1	auto	auto	unknown
Twe1/0/13		notconnect	1	auto	auto	unknown
Twe1/0/14		notconnect	1	auto	auto	unknown
Twe1/0/15		notconnect	routed	auto	auto	unknown
Twe1/0/16		notconnect	1	auto	auto	unknown
Twe1/0/17		notconnect	1	auto	auto	unknown

Port	Name	Status	Vlan	Duplex	Speed	Type
Twe1/0/18		notconnect	1	auto	auto	unknown
Twe1/0/19		notconnect	1	auto	auto	unknown
Twe1/0/20		notconnect	1	auto	auto	unknown
Twe1/0/21		notconnect	1	auto	auto	unknown
Twe1/0/22		notconnect	1	auto	auto	unknown
Twe1/0/23		notconnect	1	auto	10G	unknown
Twe1/0/24		notconnect	1	auto	auto	unknown
Hu1/0/25		notconnect	1	auto	auto	unknown
Hu1/0/26		notconnect	1	auto	auto	unknown
Hu1/0/27		notconnect	1	auto	auto	unknown
Hu1/0/28		notconnect	1	auto	auto	unknown

2. Verify the NIC port status

```
[root@localhost roo]# ethtool em1
```

Settings for em1:

```
Supported ports: [ FIBRE ]
Supported link modes:  10000baseT/Full
Supported pause frame use: Symmetric
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
Port: Direct Attach Copper
PHYAD: 0
Transceiver: external
Auto-negotiation: off
Supports Wake-on: d
Wake-on: d
Current message level: 0x00000007 (7)
                        drv probe link
```

```
Link detected: yes
```

```
[root@localhost roo]# ethtool em2
```

Settings for em2:

```
Supported ports: [ FIBRE ]
Supported link modes:  10000baseT/Full
Supported pause frame use: Symmetric
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
Port: Direct Attach Copper
PHYAD: 0
Transceiver: external
Auto-negotiation: off
Supports Wake-on: d
Wake-on: d
Current message level: 0x00000007 (7)
                        drv probe link
```

```
Link detected: yes
```

Test
Information

3. Read the module's basic information from the switch side

IDPROM for transceiver TwentyFiveGigE1/0/1:

Description = SFP or SFP+ optics (type 3)
 Transceiver Type: = SFP+ 10GBASE-SR (273)
 Product Identifier (PID) = SFP-10G-SR
 Vendor Revision =
 Serial Number (SN) = A1920000033
 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) = 19/02/21
 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

Test
Information

Test Information	IDPROM for transceiver TwentyFiveGigE1/0/2: Description = SFP or SFP+ optics (type 3) Transceiver Type: = SFP+ 10GBASE-SR (273) Product Identifier (PID) = SFP-10G-SR Vendor Revision = Serial Number (SN) = A1920000032 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) = 19/02/21 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
Test Conclusion	After completing the above test content, all the test information should be copied and pasted into a TXT document.
Remarks	