

SFP-10G-PCxxx

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

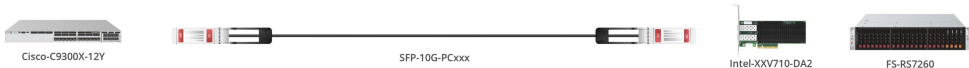
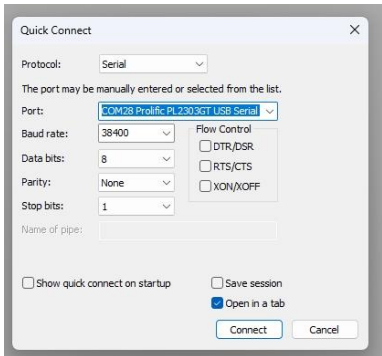
Table 3-1: Test Equipment Used

Vendor	Device	Soft Version/Compatible Brand	Serial Number
Cisco Switch	C9300X-12Y	17.12.03	/
Intel Network Interface Card (NIC)	Intel XXV710-DA2	9.50 0x8000f177	/
FS Optical Transceiver Module	SFP-10G-PCxxx	Cisco Compatible	A2403122821-2 A2403122821-1
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

```
Switch#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
```

```
Switch#show interfaces status
```

Port	Name	Status	Vlan	Duplex	Speed	Type
Twe1/0/1		connected	1	full	10G	SFP-10GBase-CX1
Twe1/0/2		connected	1	full	10G	SFP-10GBase-CX1
Twe1/0/3		notconnect	1	auto	auto	unknown
Twe1/0/4		notconnect	1	auto	auto	unknown
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	routed	auto	auto	unknown
Twe1/0/11		notconnect	1	auto	10G	unknown
Twe1/0/12		notconnect	1	auto	10G	unknown
Ap1/0/1		connected	1	a-full	a-10G	App-hosting port
Ap1/0/2		connected	1	a-full	a-10G	App-hosting port

Test Information	2. Verify the NIC port status <pre>[root@RS5220 fs]# ethtool ens4f0 Settings for ens4f0: 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: 0x0000000f (15) drv probe link timer Link detected: yes [root@RS5220 fs]# ethtool ens4f1 Settings for ens4f1: 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: 0x0000000f (15) drv probe link timer Link detected: yes</pre>
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**Test
Information**

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

Switch#show idprom interface twentyFiveGigE 1/0/1 detail

General SFP Information

```

Identifier       : SFP/SFP+
Ext.Identifier   : SFP function is defined by two-wire interface ID only
Connector       : Copper pigtail
Transceiver
10/40GE Comp code : Unknown
SONET Comp code  : Unknown
GE Comp code     : Unknown
Link length      : Unknown
Technology       : Passive cable
Media            : Unknown
Speed            : Unknown
Encoding         : Unknown
BR_Nominal       : 10300 Mbps
Length(9um)-km   : GBIC does not support single mode fibre
Length(9um)      : GBIC does not support single mode fibre
Length(50um)     : GBIC does not support 50 micron multi mode OM2 fibre
Length(62.5um)   : GBIC does not support 62.5 micron multi mode OM1 fibre
Length(Copper)   : 20 m
Vendor Name      : FS
Vendor Part Number : SFP-10G-PC02
Vendor Revision  : 0x50 0x20 0x20 0x20
Vendor Serial Number : A2403122821-2
Wavelength       : 256.00 nm
CC_BASE          : 0x5F
  
```

Extended ID Fields

```

Options         : 0x00 0x00
BR, max         : 0x00
BR, min         : 0x00
Date code       : 240511
Diag monitoring  : Implemented
Internally calibrated : No
Externally calibrated: No
Rx.Power measurement : OMA
Address Change   : Not Required
CC_EXT          : 0x66
  
```

Other Information

```

Chk for link status : 00
Flow control Receive : ON
Flow control Send    : Off
Administrative Speed : 10000
Administrative Duplex : full
Operational Speed    : 10000
Operational Duplex    : full
  
```

EEPROM contents (hex):

```

0x00: 03 04 21 00 00 00 00 04 00 00 00 67 00 00 00
0x10: 00 00 02 00 46 53 20 20 20 20 20 20 20 20 20
0x20: 20 20 20 20 00 00 40 20 53 46 50 2D 31 30 47 2D
0x30: 50 43 30 32 20 20 20 20 50 20 20 20 01 00 00 5F
0x40: 00 00 00 00 41 32 34 30 33 31 32 32 38 32 31 2D
0x50: 32 20 20 20 32 34 30 35 31 31 20 20 00 00 00 66
0x60: 81 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x70: 00 00 00 00 00 00 00 00 00 00 00 00 00 FF AE E6 46
  
```

Test
Information

Switch#show idprom interface twentyFiveGigE 1/0/2 detail

General SFP Information

```

Identifier      : SFP/SFP+
Ext.Identifier   : SFP function is defined by two-wire interface ID only
Connector       : Copper pigtail
Transceiver
  10/40GE Comp code   : Unknown
  SONET Comp code    : Unknown
  GE Comp code       : Unknown
  Link length        : Unknown
  Technology         : Passive cable
  Media              : Unknown
  Speed              : Unknown
  Encoding           : Unknown
  BR_Nominal         : 10300 Mbps
  Length(9um)-km     : GBIC does not support single mode fibre
  Length(9um)        : GBIC does not support single mode fibre
  Length(50um)       : GBIC does not support 50 micron multi mode OM2 fibre
  Length(62.5um)     : GBIC does not support 62.5 micron multi mode OM1 fibre
  Length(Copper)     : 20 m
  Vendor Name        : FS
  Vendor Part Number  : SFP-10G-PC02
  Vendor Revision    : 0x50 0x20 0x20 0x20
  Vendor Serial Number : A2403122821-1
  Wavelength         : 256.00 nm
  CC_BASE            : 0x5F

```

Extended ID Fields

```

Options         : 0x00 0x00
BR, max         : 0x00
BR, min         : 0x00
Date code       : 240511
Diag monitoring  : Implemented
Internally calibrated : No
Externally calibrated: No
Rx.Power measurement : OMA
Address Change   : Not Required
CC_EXT          : 0x65

```

Other Information

```

Chk for link status : 00
Flow control Receive : ON
Flow control Send    : Off
Administrative Speed : 10000
Administrative Duplex : full
Operational Speed    : 10000
Operational Duplex    : full

```

EEPROM contents (hex):

```

0x00: 03 04 21 00 00 00 00 00 04 00 00 00 67 00 00 00
0x10: 00 00 02 00 46 53 20 20 20 20 20 20 20 20 20 20
0x20: 20 20 20 20 00 00 40 20 53 46 50 2D 31 30 47 2D
0x30: 50 43 30 32 20 20 20 20 50 20 20 20 01 00 00 5F
0x40: 00 00 00 00 41 32 34 30 33 31 32 32 38 32 31 2D
0x50: 31 20 20 20 32 34 30 35 31 31 20 20 00 00 00 65
0x60: 81 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x70: 00 00 00 00 00 00 00 00 00 00 00 00 00 FF AE E6 46

```

Test Information	4. Read the module's basic information from the NIC side <pre>[root@RS5220 fs]# ethtool -m ens4f0 Identifier : 0x03 (SFP) Extended identifier : 0x04 (GBIC/SFP defined by 2-wire interface ID) Connector : 0x21 (Copper pigtail) Transceiver codes : 0x00 0x00 0x00 0x00 0x00 0x04 0x00 0x00 0x00 Transceiver type : Passive Cable Encoding : 0x06 (64B/66B) BR, Nominal : 10300MBd Rate identifier : 0x00 (unspecified) Length (SMF,km) : 0km Length (SMF) : 0m Length (50um) : 0m Length (62.5um) : 0m Length (Copper) : 2m Length (OM3) : 0m Passive Cu complnce. : 0x01 (SFF-8431 appendix E) [SFF-8472 rev10.4 only] Vendor name : FS Vendor OUI : 64:9d:99 Vendor PN : SFP-10G-PC02 Vendor rev : D Option values : 0x00 0x12 Option : RX_LOS implemented Option : TX_DISABLE implemented BR margin, max : 0% BR margin, min : 0% Vendor SN : A2403123681-1 Date code : 240511 [root@RS5220 fs]# ethtool -m ens4f1 Identifier : 0x03 (SFP) Extended identifier : 0x04 (GBIC/SFP defined by 2-wire interface ID) Connector : 0x21 (Copper pigtail) Transceiver codes : 0x00 0x00 0x00 0x00 0x00 0x04 0x00 0x00 0x00 Transceiver type : Passive Cable Encoding : 0x06 (64B/66B) BR, Nominal : 10300MBd Rate identifier : 0x00 (unspecified) Length (SMF,km) : 0km Length (SMF) : 0m Length (50um) : 0m Length (62.5um) : 0m Length (Copper) : 2m Length (OM3) : 0m Passive Cu complnce. : 0x01 (SFF-8431 appendix E) [SFF-8472 rev10.4 only] Vendor name : FS Vendor OUI : 64:9d:99 Vendor PN : SFP-10G-PC02 Vendor rev : D Option values : 0x00 0x12 Option : RX_LOS implemented Option : TX_DISABLE implemented BR margin, max : 0% BR margin, min : 0% Vendor SN : A2403123681-2 Date code : 240511 [root@RS5220 fs]#</pre>
Test Conclusion	After completing the above test content, all the test information should be copied and pasted into a TXT document.
Remarks	