

SFP-10GM-T-30

TEST REPORT (Juniper)



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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

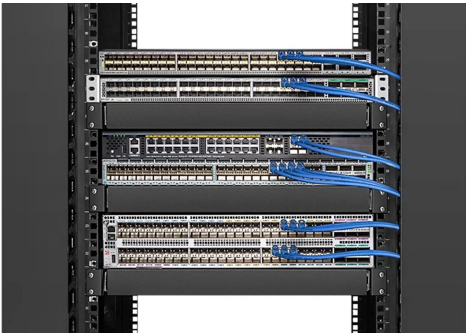
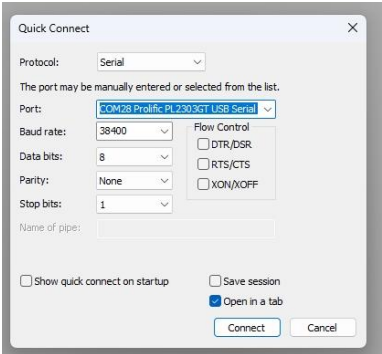
Table 3-1: Test Equipment Used

Vendor	Device	Soft Version/Compatible Brand	Serial Number
Juniper Switch	EX4600-40F	13.2X51-D35.3	/
Intel Network Interface Card (NIC)	Intel XXV710-DA2	9.50 0x8000f177	/
FS Optical Transceiver Module	SFP-10GM-T-30	Juniper Compatible	A1920007347 A1920007346
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 <pre>{master:0} root> show version fpc0: ----- Model: ex4600-40f JUNOS Base OS Software Suite [13.2X51-D35.3] JUNOS Base OS boot [13.2X51-D35.3] JUNOS Crypto Software Suite [13.2X51-D35.3] JUNOS Online Documentation [13.2X51-D35.3] JUNOS Kernel Software Suite [13.2X51-D35.3] JUNOS Packet Forwarding Engine Support (qfx-ex-x86-32) [13.2X51-D35.3] JUNOS Routing Software Suite [13.2X51-D35.3] JUNOS Enterprise Software Suite [13.2X51-D35.3] JUNOS py-base-i386 [13.2X51-D35.3] JUNOS Host Software [13.2I20141029_1852_vsdk_build_49]</pre> <pre>{master:0} root> show chassis hardware Hardware inventory: Item Version Part number Serial number Description Chassis TC3715050118 EX4600-40F Pseudo CB 0 Routing Engine 0 BUILTIN BUILTIN EX4600-40F FPC 0 REV 22 650-049940 TC3715050118 EX4600-40F CPU BUILTIN BUILTIN FPC CPU PIC 0 BUILTIN BUILTIN 24x10G-4x40G Xcvr 0 REV 01 740-031980 A1920007347 SFP+-10G-SR Xcvr 1 REV 01 740-031980 A1920007346 SFP+-10G-SR Power Supply 0 REV 03 740-041741 1GA23380071 JPSU-650W-AC-AFO Power Supply 1 REV 03 740-041741 1GA23380073 JPSU-650W-AC-AFO Fan Tray 0 Fan Tray 1 Fan Tray 2 Fan Tray 3 Fan Tray 4 QFX5100 Fan Tray 0, Front to Back Airflow - AFO QFX5100 Fan Tray 1, Front to Back Airflow - AFO QFX5100 Fan Tray 2, Front to Back Airflow - AFO QFX5100 Fan Tray 3, Front to Back Airflow - AFO QFX5100 Fan Tray 4, Front to Back Airflow - AFO</pre>
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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

```
{master:0}
```

```
root> show interfaces diagnostics optics
```

```
Physical interface: xe-0/0/0
```

```

Laser bias current           : 6.016 mA
Laser output power           : 0.3800 mW / -4.20 dBm
Module temperature           : 28 degrees C / 82 degrees F
Module voltage                : 3.2500 V
Receiver signal average optical power : 0.5108 mW / -2.92 dBm
Laser bias current high alarm : Off
Laser bias current low alarm  : Off
Laser bias current high warning : Off
Laser bias current low warning : Off
Laser output power high alarm  : Off
Laser output power low alarm   : Off
Laser output power high warning : Off
Laser output power low warning : Off
Module temperature high alarm  : Off
Module temperature low alarm   : Off
Module temperature high warning : Off
Module temperature low warning : Off
Module voltage high alarm      : Off
Module voltage low alarm       : Off
Module voltage high warning    : Off
Module voltage low warning     : Off
Laser rx power high alarm      : Off
Laser rx power low alarm       : Off
Laser rx power high warning    : Off
Laser rx power low warning     : Off
Laser bias current high alarm threshold : 25.000 mA
Laser bias current low alarm threshold  : 1.000 mA
Laser bias current high warning threshold : 20.000 mA
Laser bias current low warning threshold : 1.200 mA
Laser output power high alarm threshold : 1.5840 mW / 2.00 dBm
Laser output power low alarm threshold  : 0.1120 mW / -9.51 dBm
Laser output power high warning threshold : 1.0000 mW / 0.00 dBm
Laser output power low warning threshold : 0.1770 mW / -7.52 dBm
Module temperature high alarm threshold : 125 degrees C / 257 degrees F
Module temperature low alarm threshold  : -50 degrees C / -58 degrees F
Module temperature high warning threshold : 100 degrees C / 212 degrees F
Module temperature low warning threshold : -45 degrees C / -49 degrees F
Module voltage high alarm threshold      : 3.600 V
Module voltage low alarm threshold       : 2.900 V
Module voltage high warning threshold    : 3.500 V
Module voltage low warning threshold     : 3.000 V
Laser rx power high alarm threshold      : 1.5849 mW / 2.00 dBm
Laser rx power low alarm threshold       : 0.0316 mW / -15.00 dBm
Laser rx power high warning threshold    : 1.0000 mW / 0.00 dBm
Laser rx power low warning threshold     : 0.0501 mW / -13.00 dBm

```

Test
Information

Test Information	Physical interface: xe-0/0/1 Laser bias current : 6.016 mA Laser output power : 0.3800 mW / -4.20 dBm Module temperature : 29 degrees C / 84 degrees F Module voltage : 3.2500 V Receiver signal average optical power : 0.5108 mW / -2.92 dBm Laser bias current high alarm : Off Laser bias current low alarm : Off Laser bias current high warning : Off Laser bias current low warning : Off Laser output power high alarm : Off Laser output power low alarm : Off Laser output power high warning : Off Laser output power low warning : Off Module temperature high alarm : Off Module temperature low alarm : Off Module temperature high warning : Off Module temperature low warning : Off Module voltage high alarm : Off Module voltage low alarm : Off Module voltage high warning : Off Module voltage low warning : Off Laser rx power high alarm : Off Laser rx power low alarm : Off Laser rx power high warning : Off Laser rx power low warning : Off Laser bias current high alarm threshold : 25.000 mA Laser bias current low alarm threshold : 1.000 mA Laser bias current high warning threshold : 20.000 mA Laser bias current low warning threshold : 1.200 mA Laser output power high alarm threshold : 1.5840 mW / 2.00 dBm Laser output power low alarm threshold : 0.1120 mW / -9.51 dBm Laser output power high warning threshold : 1.0000 mW / 0.00 dBm Laser output power low warning threshold : 0.1770 mW / -7.52 dBm Module temperature high alarm threshold : 125 degrees C / 257 degrees F Module temperature low alarm threshold : -50 degrees C / -58 degrees F Module temperature high warning threshold : 100 degrees C / 212 degrees F Module temperature low warning threshold : -45 degrees C / -49 degrees F Module voltage high alarm threshold : 3.600 V Module voltage low alarm threshold : 2.900 V Module voltage high warning threshold : 3.500 V Module voltage low warning threshold : 3.000 V Laser rx power high alarm threshold : 1.5849 mW / 2.00 dBm Laser rx power low alarm threshold : 0.0316 mW / -15.00 dBm Laser rx power high warning threshold : 1.0000 mW / 0.00 dBm Laser rx power low warning threshold : 0.0501 mW / -13.00 dBm
Test Conclusion	After completing the above test content, all the test information should be copied and pasted into a TXT document.
Remarks	