OPTCORE

Transceiver Test Report

PN: OSP10G-8503DCR (SFP-10G-SR)

Test by: Maddy | Date: 2025/12/10

I. Test Purpose

By building realistic switch use cases, we test whether the OSP10G-8503DCR (SFP-10G-SR) transceiver meets industry standards, performs at a high level, and is compatible with the target switch platform.

II. Test Results Summary

Test items	Test Result	Note
Compatibility Test	Pass	Check whether the transceiver is compatible with the target switch
Digital Diagnostic Monitoring	Pass	Check whether the DDM parameters have exceeded the threshold value
Transmission Distance Test	Pass	Check whether the transceiver meets the distance specification

III. Test Environment

3.1 Test Sample

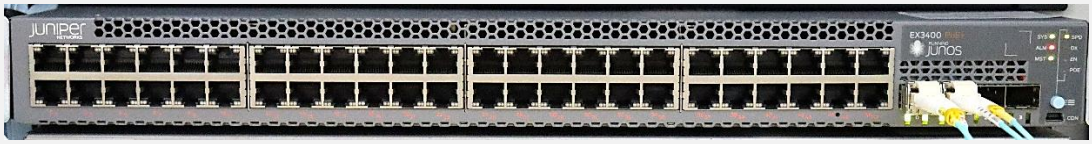
Vendor Name	Part Number	Serial Number	Description
OPTCORE	OSP10G-8503DCR	24J4400960	10GBASE-SR SFP+ MMF 850nm 300m Transceiver
OPTCORE	OSP10G-8503DCR	24J4400962	10GBASE-SR SFP+ MMF 850nm 300m Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Juniper	EX3400 PoE+	JUNOS 18.2R3-S4.1
OPTCORE	LC-LC-OM3-D300M	300m duplex LC OM3 patch cable

IV. Test Data

4.1 Compatibility Test

Test Data	 {master:0} root@E18-Juniper>show interface brief Physical interface: xe-0/2/0, Enabled, Physical link is Up Link-level type: Ethernet, MTU: 1514, LAN-PHY mode, Speed: 10Gbps, Loopback: Disabled, Source filtering: Disabled, Flow control: Disabled, Media type: Fiber Device flags : Present Running Interface flags: SNMP-Traps Internal: 0x4000 Link flags : None Logical interface xe-0/2/0.0 Flags: Up SNMP-Traps 0x24024000 Encapsulation: Ethernet-Bridge eth-switch Physical interface: xe-0/2/1, Enabled, Physical link is Up Link-level type: Ethernet, MTU: 1514, LAN-PHY mode, Speed: 10Gbps, Loopback: Disabled, Source filtering: Disabled, Flow control: Disabled, Media type: Fiber Device flags : Present Running Interface flags: SNMP-Traps Internal: 0x4000 Link flags : None Logical interface xe-0/2/1.0 Flags: Up SNMP-Traps 0x24024000 Encapsulation: Ethernet-Bridge eth-switch
Test Conclusion	The optical transceiver was successfully recognized by the Juniper EX3400 PoE+, with all identification information accurately displayed in the outputs.

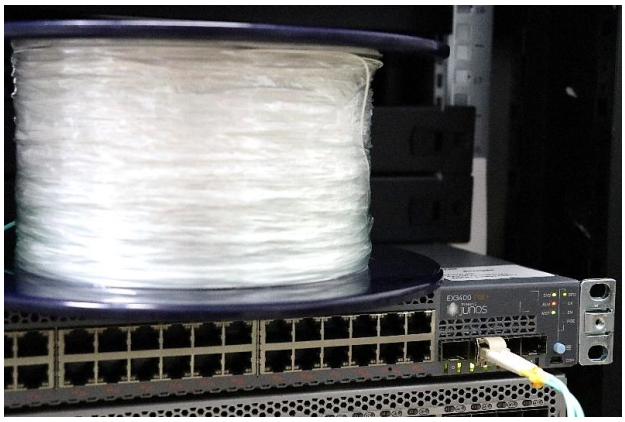
4.2 Digital Diagnostic Monitoring

Test Data	root@E18-Juniper> show interfaces diagnostics optics Physical interface: xe-0/2/0 Laser bias current : 6.090 mA Laser output power : 0.5530 mW / -2.57 dBm Module temperature : 26 degrees C / 79 degrees F Module voltage : 3.4220 V Laser receiver power : 0.6578 mW / -1.82 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 : 15.000 mA Laser bias current low alarm threshold : 1.000 mA Laser bias current high warning threshold : 13.000 mA Laser bias current low warning threshold : 2.000 mA Laser output power high alarm threshold : 1.5840 mW / 2.00 dBm Laser output power low alarm threshold : 0.1990 mW / -7.01 dBm Laser output power high warning threshold : 1.2580 mW / 1.00 dBm Laser output power low warning threshold : 0.2510 mW / -6.00 dBm Module temperature high alarm threshold : 90 degrees C / 194 degrees F Module temperature low alarm threshold : -10 degrees C / 14 degrees F Module temperature high warning threshold : 85 degrees C / 185 degrees F Module temperature low warning threshold : -5 degrees C / 23 degrees F Module voltage high alarm threshold : 3.700 V Module voltage low alarm threshold : 2.900 V Module voltage high warning threshold : 3.600 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 : 0.0501 mW / -13.00 dBm Laser rx power high warning threshold : 1.2589 mW / 1.00 dBm Laser rx power low warning threshold : 0.0631 mW / -12.00 dBm Physical interface: xe-0/2/1 Laser bias current : 6.468 mA Laser output power : 0.6400 mW / -1.94 dBm Module temperature : 26 degrees C / 79 degrees F Module voltage : 3.3950 V

	Laser receiver power : 0.6006 mW / -2.21 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 : 15.000 mA Laser bias current low alarm threshold : 1.000 mA Laser bias current high warning threshold : 13.000 mA Laser bias current low warning threshold : 2.000 mA Laser output power high alarm threshold : 1.5840 mW / 2.00 dBm Laser output power low alarm threshold : 0.1990 mW / -7.01 dBm Laser output power high warning threshold : 1.2580 mW / 1.00 dBm Laser output power low warning threshold : 0.2510 mW / -6.00 dBm Module temperature high alarm threshold : 90 degrees C / 194 degrees F Module temperature low alarm threshold : -10 degrees C / 14 degrees F Module temperature high warning threshold : 85 degrees C / 185 degrees F Module temperature low warning threshold : -5 degrees C / 23 degrees F Module voltage high alarm threshold : 3.700 V Module voltage low alarm threshold : 2.900 V Module voltage high warning threshold : 3.600 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 : 0.0501 mW / -13.00 dBm Laser rx power high warning threshold : 1.2589 mW / 1.00 dBm Laser rx power low warning threshold : 0.0631 mW / -12.00 dBm
Test Conclusion	After testing, the above transceiver on the Juniper EX3400 PoE+ DDM is normally identified, the parameters do not exceed thresholds, and the transceiver operates normally.

4.3 Transmission Distance Test

Test Conclusion	 In this test, optical transceiver modules were connected using 300-meter OM3 fiber cables to verify link stability. The modules were inserted into the switches and established a point-to-point connection. The link was monitored for one hour to check for any bit errors, packet loss, link drops, or interruptions. All connections remained stable and error-free, indicating that the modules perform reliably over an 300-meter fiber link.

Appendix A. Document Revision

Version No	Date	Description
V1.0/EN	2025-12-10	Preliminary test report