

Transceiver Test Report

PN: QSFP-100G-SR4

I. Test Purpose

By building realistic switch use cases, we test whether the QSFP-100G-SR4 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	QSFP-100G-SR4	25B4806951	100GBASE-SR4 QSFP28 850nm 100m Transceiver
OPTCORE	QSFP-100G-SR4	25B4806923	100GBASE-SR4 QSFP28 850nm 100m Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Juniper	QFX5200-32C	19.2R3-S1.3 flex
OPTCORE	MT-MPO/F-MPO/F-12OM3-70M-B-LS	70M Multimode OM3 MPO Fiber Trunk Cable,12-Fiber, Female, UPC, Polarity B
OPTCORE	MT-MPO/F-MPO/F-12OM4-100M-B-LS	100M Multimode OM4 MPO Fiber Trunk Cable,12-Fiber, Female, UPC, Polarity B

IV. Test Data

4.1 Compatibility Test

<p>Test Data</p>	 <pre> {master:0} root> show interfaces statistics match et Physical interface: et-0/0/14, Enabled, Physical link is Up Link-level type: Ethernet, MTU: 1514, LAN-PHY mode, Speed: 100Gbps, BPDU Error: None, Loop Detect PDU Error: None, Ethernet-Switching Error: None, Ethernet FEC Mode : FEC91 Ethernet FEC statistics Errors Logical interface et-0/0/14.0 (Index 557) (SNMP ifIndex 521) Flags: Up SNMP-Traps 0x4004000 Encapsulation: ENET2 Input packets : 162 Output packets: 163 Protocol inet, MTU: 1500 Physical interface: et-0/0/16, Enabled, Physical link is Up Link-level type: Ethernet, MTU: 1514, LAN-PHY mode, Speed: 100Gbps, BPDU Error: None, Loop Detect PDU Error: None, Ethernet-Switching Error: None, Ethernet FEC Mode : FEC91 Ethernet FEC statistics Errors Logical interface et-0/0/16.0 (Index 558) (SNMP ifIndex 522) Flags: Up SNMP-Traps 0x4004000 Encapsulation: ENET2 Input packets : 162 Output packets: 163 Protocol inet, MTU: 1500 </pre>
<p>Test Conclusion</p>	<p>The optical transceiver was successfully recognized by the Juniper QFX5200-32C, with all identification information accurately displayed in the outputs.</p>

4.2 Digital Diagnostic Monitoring

<p>Test Data</p>	<pre> {master:0} root> show interfaces diagnostics optics Physical interface: et-0/0/14 Module temperature : 42 degrees C / 107 degrees F Module voltage : 3.2890 V 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 </pre>
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Module voltage high warning	: Off
Module voltage low warning	: Off
Module temperature high alarm threshold	: 85 degrees C / 185 degrees F
Module temperature low alarm threshold	: -10 degrees C / 14 degrees F
Module temperature high warning threshold	: 70 degrees C / 158 degrees F
Module temperature low warning threshold	: 0 degrees C / 32 degrees F
Module voltage high alarm threshold	: 3.5990 V
Module voltage low alarm threshold	: 2.9000 V
Module voltage high warning threshold	: 3.4990 V
Module voltage low warning threshold	: 3.0990 V
Laser bias current high alarm threshold	: 14.999 mA
Laser bias current low alarm threshold	: 0.999 mA
Laser bias current high warning threshold	: 11.999 mA
Laser bias current low warning threshold	: 1.999 mA
Laser output power high alarm threshold	: 2.5119 mW / 4.00 dBm
Laser output power low alarm threshold	: 0.0724 mW / -11.40 dBm
Laser output power high warning threshold	: 1.7378 mW / 2.40 dBm
Laser output power low warning threshold	: 0.1445 mW / -8.40 dBm
Laser rx power high alarm threshold	: 2.5119 mW / 4.00 dBm
Laser rx power low alarm threshold	: 0.0398 mW / -14.00 dBm
Laser rx power high warning threshold	: 1.7378 mW / 2.40 dBm
Laser rx power low warning threshold	: 0.0794 mW / -11.00 dBm
Lane 0	
Laser bias current	: 6.291 mA
Laser output power	: 1.028 mW / 0.12 dBm
Laser receiver power	: 0.923 mW / -0.35 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 receiver power high alarm	: Off
Laser receiver power low alarm	: Off
Laser receiver power high warning	: Off
Laser receiver power low warning	: Off
Tx loss of signal functionality alarm	: Off
Rx loss of signal alarm	: Off
Tx laser disabled alarm	: Off
Lane 1	
Laser bias current	: 6.317 mA
Laser output power	: 1.011 mW / 0.05 dBm
Laser receiver power	: 0.708 mW / -1.50 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 receiver power high alarm	: Off

Laser receiver power low alarm	: Off
Laser receiver power high warning	: Off
Laser receiver power low warning	: Off
Tx loss of signal functionality alarm	: Off
Rx loss of signal alarm	: Off
Tx laser disabled alarm	: Off
Lane 2	
Laser bias current	: 6.311 mA
Laser output power	: 0.978 mW / -0.10 dBm
Laser receiver power	: 0.655 mW / -1.83 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 receiver power high alarm	: Off
Laser receiver power low alarm	: Off
Laser receiver power high warning	: Off
Laser receiver power low warning	: Off
Tx loss of signal functionality alarm	: Off
Rx loss of signal alarm	: Off
Tx laser disabled alarm	: Off
Lane 3	
Laser bias current	: 6.303 mA
Laser output power	: 0.934 mW / -0.29 dBm
Laser receiver power	: 0.891 mW / -0.50 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 receiver power high alarm	: Off
Laser receiver power low alarm	: Off
Laser receiver power high warning	: Off
Laser receiver power low warning	: Off
Tx loss of signal functionality alarm	: Off
Rx loss of signal alarm	: Off
Tx laser disabled alarm	: Off
Physical interface: et-0/0/16	
Module temperature	: 43 degrees C / 109 degrees F
Module voltage	: 3.3360 V
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
Module temperature high alarm threshold	: 85 degrees C / 185 degrees F
Module temperature low alarm threshold	: -10 degrees C / 14 degrees F
Module temperature high warning threshold	: 70 degrees C / 158 degrees F
Module temperature low warning threshold	: 0 degrees C / 32 degrees F
Module voltage high alarm threshold	: 3.5990 V
Module voltage low alarm threshold	: 2.9000 V
Module voltage high warning threshold	: 3.4990 V
Module voltage low warning threshold	: 3.0990 V
Laser bias current high alarm threshold	: 14.999 mA
Laser bias current low alarm threshold	: 0.999 mA
Laser bias current high warning threshold	: 11.999 mA
Laser bias current low warning threshold	: 1.999 mA
Laser output power high alarm threshold	: 2.5119 mW / 4.00 dBm
Laser output power low alarm threshold	: 0.0724 mW / -11.40 dBm
Laser output power high warning threshold	: 1.7378 mW / 2.40 dBm
Laser output power low warning threshold	: 0.1445 mW / -8.40 dBm
Laser rx power high alarm threshold	: 2.5119 mW / 4.00 dBm
Laser rx power low alarm threshold	: 0.0398 mW / -14.00 dBm
Laser rx power high warning threshold	: 1.7378 mW / 2.40 dBm
Laser rx power low warning threshold	: 0.0794 mW / -11.00 dBm
Lane 0	
Laser bias current	: 7.193 mA
Laser output power	: 1.124 mW / 0.51 dBm
Laser receiver power	: 0.748 mW / -1.26 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 receiver power high alarm	: Off
Laser receiver power low alarm	: Off
Laser receiver power high warning	: Off
Laser receiver power low warning	: Off
Tx loss of signal functionality alarm	: Off
Rx loss of signal alarm	: Off
Tx laser disabled alarm	: Off
Lane 1	
Laser bias current	: 7.185 mA
Laser output power	: 1.162 mW / 0.65 dBm
Laser receiver power	: 0.369 mW / -4.33 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 receiver power high alarm	: Off

	<p>Laser receiver power low alarm : Off</p> <p>Laser receiver power high warning : Off</p> <p>Laser receiver power low warning : Off</p> <p>Tx loss of signal functionality alarm : Off</p> <p>Rx loss of signal alarm : Off</p> <p>Tx laser disabled alarm : Off</p> <p>Lane 2</p> <p>Laser bias current : 7.179 mA</p> <p>Laser output power : 1.199 mW / 0.79 dBm</p> <p>Laser receiver power : 0.786 mW / -1.05 dBm</p> <p>Laser bias current high alarm : Off</p> <p>Laser bias current low alarm : Off</p> <p>Laser bias current high warning : Off</p> <p>Laser bias current low warning : Off</p> <p>Laser receiver power high alarm : Off</p> <p>Laser receiver power low alarm : Off</p> <p>Laser receiver power high warning : Off</p> <p>Laser receiver power low warning : Off</p> <p>Tx loss of signal functionality alarm : Off</p> <p>Rx loss of signal alarm : Off</p> <p>Tx laser disabled alarm : Off</p> <p>Lane 3</p> <p>Laser bias current : 7.205 mA</p> <p>Laser output power : 1.119 mW / 0.49 dBm</p> <p>Laser receiver power : 0.756 mW / -1.21 dBm</p> <p>Laser bias current high alarm : Off</p> <p>Laser bias current low alarm : Off</p> <p>Laser bias current high warning : Off</p> <p>Laser bias current low warning : Off</p> <p>Laser receiver power high alarm : Off</p> <p>Laser receiver power low alarm : Off</p> <p>Laser receiver power high warning : Off</p> <p>Laser receiver power low warning : Off</p> <p>Tx loss of signal functionality alarm : Off</p> <p>Rx loss of signal alarm : Off</p> <p>Tx laser disabled alarm : Off</p>
Test Conclusion	After testing, the above transceiver on the Juniper QFX5200-32C 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 70-meter OM3 and 100-meter OM4 fiber cables to verify link stability. The modules were inserted into the switches and
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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 100-meter fiber link.

Appendix A. Document Revision

Version No	Date	Description
V1.0/EN	2025-12-19	Preliminary test report

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