OPTCORE

Transceiver Test Report

PN: QSFP-100G-SR4

Test by: Maddy | Date: 2025/12/19

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
Mellanox	SN2410	3.10.4006
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

Test Data	 switch-3858d4 [standalone: master] # show interfaces ethernet 1/53 transceiver Port 1/53 state identifier : QSFP28 cable/module type : Optical module ethernet speed and type: 100GBASE-SR vendor : OPTCORE supported cable length : 30m OM2 ,100m OM3 part number : QSFP-100G-SR4 revision : 00 serial number : 25B4806951 switch-3858d4 [standalone: master] # show interfaces ethernet 1/55 transceiver Port 1/55 state identifier : QSFP28 cable/module type : Optical module ethernet speed and type: 100GBASE-SR vendor : OPTCORE supported cable length : 30m OM2 ,100m OM3 part number : QSFP-100G-SR4 revision : 00 serial number : 25B4806923
Test Conclusion	The optical transceiver was successfully recognized by the Mellanox SN2410, with all identification information accurately displayed in the outputs.

4.2 Digital Diagnostic Monitoring

Test Data	switch-3858d4 [standalone: master] # show interfaces ethernet 1/53 transceiver diagnostics Port 1/53 transceiver diagnostic data: Temperature (-127C to +127C): Temperature : 17 C Hi Temp Alarm Thresh : 85 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None Voltage (0 to 6.5535 V):

Voltage : 3.30200 V
Hi Volt Alarm Thresh : 3.60000 V
Low Volt Alarm Thresh: 2.90000 V
Voltage Alarm : None

Tx Bias Current (0 to 131 mA):
Ch1 Tx Current : 6.29400 mA
Ch2 Tx Current : 6.28800 mA
Ch3 Tx Current : 6.28000 mA
Ch4 Tx Current : 6.32000 mA
Hi Tx Crnt Alarm Thresh : 15.00000 mA
Low Tx Crnt Alarm Thresh: 1.00000 mA
Ch1 Tx Current Alarm : None
Ch2 Tx Current Alarm : None
Ch3 Tx Current Alarm : None
Ch4 Tx Current Alarm : None

Tx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Tx Power : 1.02840 mW / 0.12162 dBm
Ch2 Tx Power : 1.00610 mW / 0.02641 dBm
Ch3 Tx Power : 0.97300 mW / -0.11887 dBm
Ch4 Tx Power : 0.93690 mW / -0.28307 dBm
Hi Tx Power Alarm Thresh : 2.51190 mW / 4.00002 dBm
Low Tx Power Alarm Thresh: 0.07240 mW / -11.40261 dBm
Ch1 Tx Power Alarm : None
Ch2 Tx Power Alarm : None
Ch3 Tx Power Alarm : None
Ch4 Tx Power Alarm : None

Rx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Rx Power : 0.97120 mW / -0.12691 dBm
Ch2 Rx Power : 0.52500 mW / -2.79841 dBm
Ch3 Rx Power : 0.90800 mW / -0.41914 dBm
Ch4 Rx Power : 1.04270 mW / 0.18159 dBm
Hi Rx Power Alarm Thresh : 2.51190 mW / 4.00002 dBm
Low Rx Power Alarm Thresh: 0.03980 mW / -14.00117 dBm
Ch1 Rx Power Alarm : None
Ch2 Rx Power Alarm : None
Ch3 Rx Power Alarm : None
Ch4 Rx Power Alarm : None

Vendor Date Code (dd-mm-yyyy): 04-03-2025

switch-3858d4 [standalone: master] # show interfaces ethernet 1/55 transceiver diagnostics

Port 1/55 transceiver diagnostic data:

Temperature (-127C to +127C):
Temperature : 25 C
Hi Temp Alarm Thresh : 85 C
Low Temp Alarm Thresh: -10 C
Temperature Alarm : None

Voltage (0 to 6.5535 V):
Voltage : 3.31500 V
Hi Volt Alarm Thresh : 3.60000 V
Low Volt Alarm Thresh: 2.90000 V
Voltage Alarm : None

Tx Bias Current (0 to 131 mA):
Ch1 Tx Current : 7.00600 mA
Ch2 Tx Current : 6.99800 mA
Ch3 Tx Current : 6.99200 mA
Ch4 Tx Current : 7.01800 mA
Hi Tx Crnt Alarm Thresh : 15.00000 mA
Low Tx Crnt Alarm Thresh: 1.00000 mA
Ch1 Tx Current Alarm : None
Ch2 Tx Current Alarm : None
Ch3 Tx Current Alarm : None
Ch4 Tx Current Alarm : None

Tx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Tx Power : 1.09440 mW / 0.39176 dBm
Ch2 Tx Power : 1.13280 mW / 0.54153 dBm
Ch3 Tx Power : 1.16990 mW / 0.68149 dBm
Ch4 Tx Power : 1.08950 mW / 0.37227 dBm
Hi Tx Power Alarm Thresh : 2.51190 mW / 4.00002 dBm
Low Tx Power Alarm Thresh: 0.07240 mW / -11.40261 dBm
Ch1 Tx Power Alarm : None
Ch2 Tx Power Alarm : None
Ch3 Tx Power Alarm : None
Ch4 Tx Power Alarm : None

Rx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Rx Power : 0.96270 mW / -0.16509 dBm
Ch2 Rx Power : 0.46190 mW / -3.35452 dBm
Ch3 Rx Power : 0.55870 mW / -2.52821 dBm
Ch4 Rx Power : 0.78600 mW / -1.04577 dBm
Hi Rx Power Alarm Thresh : 2.51190 mW / 4.00002 dBm
Low Rx Power Alarm Thresh: 0.03980 mW / -14.00117 dBm
Ch1 Rx Power Alarm : None
Ch2 Rx Power Alarm : None
Ch3 Rx Power Alarm : None

	Ch4 Rx Power Alarm : None Vendor Date Code (dd-mm-yyyy): 28-02-2025
Test Conclusion	After testing, the above transceiver on the Mellanox SN2410 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-merter OM3 and 100-meter OM4 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 100-meter fiber link.

Appendix A. Document Revision

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