OPTCORE

Transceiver Test Report

PN: SFP-25G-SR

Test by: Maddy | Date: 2026/01/29

I. Test Purpose

By building realistic switch use cases, we test whether the SFP-25G-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	SFP-25G-SR	26A4405673	25G SFP28 SR 850nm 100m Transceiver
OPTCORE	SFP-25G-SR	26A4405674	25G SFP28 SR 850nm 100m Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Mellanox	SN2410	3.10.4006
OPTCORE	LC-LC-OM3-D70M	70m duplex LC OM3 patch cable

IV. Test Data

4.1 Compatibility Test

Test Data

switch-3858d4 [standalone: master] # show interfaces status

Port	Operational state	Admin	Speed	MTU	Description
mgmt0	Down	Enabled	UNKNOWN	1500	-
mgmt1	Down	Enabled	UNKNOWN	1500	-
Eth1/1	Down	Enabled	Unknown	9216	-
Eth1/2	Down	Enabled	Unknown	9216	-
Eth1/3	Down	Enabled	Unknown	9216	-
Eth1/4	Down	Enabled	Unknown	9216	-
Eth1/5	Down	Enabled	Unknown	9216	-
Eth1/6	Down	Enabled	Unknown	9216	-
Eth1/7	Down	Enabled	Unknown	9216	-
Eth1/8	Down	Enabled	Unknown	9216	-
Eth1/9	Down	Enabled	Unknown	9216	-
Eth1/10	Down	Enabled	Unknown	9216	-
Eth1/11	Down	Enabled	Unknown	9216	-
Eth1/12	Down	Enabled	Unknown	9216	-
Eth1/13	Down	Enabled	Unknown	9216	-
Eth1/14	Down	Enabled	Unknown	9216	-
Eth1/15	Down	Enabled	Unknown	9216	-
Eth1/16	Down	Enabled	Unknown	9216	-
Eth1/17	Down	Enabled	Unknown	9216	--
Eth1/18	Down	Enabled	Unknown	9216	-
Eth1/19	Up	Enabled	25G	9216	-
Eth1/20	Down	Enabled	Unknown	9216	-
Eth1/21	Down	Enabled	Unknown	9216	-
Eth1/22	Down	Enabled	Unknown	9216	-
Eth1/23	Down	Enabled	Unknown	9216	-
Eth1/24	Down	Enabled	Unknown	9216	-
Eth1/25	Up	Enabled	25G	9216	-
Eth1/26	Down	Enabled	Unknown	9216	-
Eth1/27	Down	Enabled	Unknown	9216	-
Eth1/28	Down	Enabled	Unknown	9216	-
Eth1/29	Down	Enabled	Unknown	9216	-
Eth1/30	Down	Enabled	Unknown	9216	-
Eth1/31	Down	Enabled	Unknown	9216	-
Eth1/32	Down	Enabled	Unknown	9216	-

	Eth1/33 Down Enabled Unknown 9216- Eth1/34 Down Enabled Unknown 9216- Eth1/35 Down Enabled Unknown 9216- Eth1/36 Down Enabled Unknown 9216- Eth1/37 Down Enabled Unknown 9216- Eth1/38 Down Enabled Unknown 9216- Eth1/39 Down Enabled Unknown 9216- Eth1/40 Down Enabled Unknown 9216- Eth1/41 Down Enabled Unknown 9216- Eth1/42 Down Enabled Unknown 9216- Eth1/43 Down Enabled Unknown 9216- Eth1/44 Down Enabled Unknown 9216- Eth1/45 Down Enabled Unknown 9216- Eth1/46 Down Enabled Unknown 9216- Eth1/47 Down Enabled Unknown 9216- Eth1/48 Down Enabled Unknown 9216- Eth1/49/1 Down Enabled Unknown 9216- Eth1/49/2 Down Enabled Unknown 9216- Eth1/49/3 Down Enabled Unknown 9216- Eth1/49/4 Down Enabled Unknown 9216- Eth1/52 Down Enabled Unknown 9216- Eth1/53 Down Enabled Unknown 9216- Eth1/54 Down Enabled Unknown 9216- Eth1/55 Down Enabled Unknown 9216- Eth1/56 Down Enabled Unknown 9216
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 1/25 transceiver diagnostics Port 1/25 transceiver diagnostic data: Temperature (-127C to +127C): Temperature : 15 C Hi Temp Alarm Thresh : 75 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None Voltage (0 to 6.5535 V): Voltage : 3.34680 V Hi Volt Alarm Thresh : 3.60000 V Low Volt Alarm Thresh: 3.00000 V Voltage Alarm : None

Tx Bias Current (0 to 131 mA):
Ch1 Tx Current : 7.01200 mA
Hi Tx Crnt Alarm Thresh : 15.00000 mA
Low Tx Crnt Alarm Thresh: 2.00000 mA
Ch1 Tx Current Alarm : None

Tx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Tx Power : 1.38030 mW / 1.39973 dBm
Hi Tx Power Alarm Thresh : 2.23870 mW / 3.49996 dBm
Low Tx Power Alarm Thresh: 0.15840 mW / -8.00245 dBm
Ch1 Tx Power Alarm : None

Rx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Rx Power : 1.73540 mW / 2.39400 dBm
Hi Rx Power Alarm Thresh : 1.99520 mW / 2.99986 dBm
Low Rx Power Alarm Thresh: 0.03980 mW / -14.00117 dBm
Ch1 Rx Power Alarm : None

Vendor Date Code (dd-mm-yyyy): 23-01-2026

switch-3858d4 [standalone: master] # show interfaces ethernet 1/19 transceiver diagnostics

Port 1/19 transceiver diagnostic data:
Temperature (-127C to +127C):
Temperature : 15 C
Hi Temp Alarm Thresh : 75 C
Low Temp Alarm Thresh: -10 C
Temperature Alarm : None

Voltage (0 to 6.5535 V):
Voltage : 3.32810 V
Hi Volt Alarm Thresh : 3.60000 V
Low Volt Alarm Thresh: 3.00000 V
Voltage Alarm : None

Tx Bias Current (0 to 131 mA):
Ch1 Tx Current : 7.01200 mA
Hi Tx Crnt Alarm Thresh : 15.00000 mA
Low Tx Crnt Alarm Thresh: 2.00000 mA
Ch1 Tx Current Alarm : None

Tx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Tx Power : 1.25890 mW / 0.99991 dBm
Hi Tx Power Alarm Thresh : 2.23870 mW / 3.49996 dBm
Low Tx Power Alarm Thresh: 0.15840 mW / -8.00245 dBm

	Ch1 Tx Power Alarm : None Rx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Rx Power : 1.82660 mW / 2.61643 dBm Hi Rx Power Alarm Thresh : 1.99520 mW / 2.99986 dBm Low Rx Power Alarm Thresh: 0.03980 mW / -14.00117 dBm Ch1 Rx Power Alarm : None Vendor Date Code (dd-mm-yyyy): 23-01-2026 ----------
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-meter OM3 fiber cables 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.

Appendix A. Document Revision

Version No	Date	Description
V1.0/EN	2026-01-29	Preliminary test report