OPTCORE

Transceiver Test Report

PN: OSP1250-3140DCR (SFP-1G-EX)

Test by: Maddy | Date: 2026/01/06

I. Test Purpose

By building realistic switch use cases, we test whether the OSP1250-3140DCR (SFP-1G-EX) 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

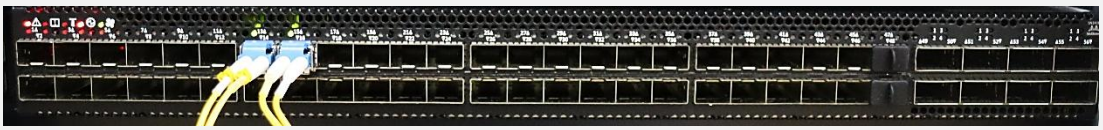
Vendor Name	Part Number	Serial Number	Description
OPTCORE	OSP1250-3140DCR	24G4400489	1000BASE-EX SFP 1310nm 40km Transceiver
OPTCORE	OSP1250-3140DCR	24G4400490	1000BASE-EX SFP 1310nm 40km Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Mellanox	SN2410	3.10.4006
OPTCORE	LC-LC-SM-D40KM	40km duplex LC single mode patch cable

IV. Test Data

4.1 Compatibility Test

Test Data	 switch-3858d4 [standalone: master] # show interfaces ethernet 1/13 transceiver Port 1/13 state identifier : SFP/SFP+/SFP28 cable/module type : Optical cable/ module ethernet speed and type: 1000BASE - LX, Unspecified

	vendor : OPTCORE supported cable length : 40000m SMF ,25500m SMF part number : OSP1250-3140DCR revision : serial number : 24G4400489 switch-3858d4 [standalone: master] # show interfaces ethernet 1/15 transceiver Port 1/15 state identifier : SFP/SFP+/SFP28 cable/module type : Optical cable/ module ethernet speed and type: 1000BASE - LX, Unspecified vendor : OPTCORE supported cable length : 40000m SMF ,25500m SMF part number : OSP1250-3140DCR revision : serial number : 24G4400490
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 1/13 transceiver diagnostics Port 1/13 transceiver diagnostic data: Temperature (-127C to +127C): Temperature : 14 C Hi Temp Alarm Thresh : 90 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None Voltage (0 to 6.5535 V): Voltage : 3.36960 V Hi Volt Alarm Thresh : 3.70000 V Low Volt Alarm Thresh: 2.90000 V Voltage Alarm : None Tx Bias Current (0 to 131 mA): Ch1 Tx Current : 16.41600 mA Hi Tx Crnt Alarm Thresh : 100.00000 mA Low Tx Crnt Alarm Thresh: 1.00000 mA Ch1 Tx Current Alarm : None Tx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Tx Power : 0.70430 mW / -1.52242 dBm Hi Tx Power Alarm Thresh : 1.99530 mW / 3.00008 dBm

	Low Tx Power Alarm Thresh: 0.10000 mW / -10.00000 dBm Ch1 Tx Power Alarm : None Rx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Rx Power : 0.72420 mW / -1.40141 dBm Hi Rx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Rx Power Alarm Thresh: 0.00060 mW / -32.21849 dBm Ch1 Rx Power Alarm : None Vendor Date Code (dd-mm-yyyy): 08-07-2024 switch-3858d4 [standalone: master] # show interfaces ethernet 1/15 transceiver diagnostics Port 1/15 transceiver diagnostic data: Temperature (-127C to +127C): Temperature : 12 C Hi Temp Alarm Thresh : 90 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None Voltage (0 to 6.5535 V): Voltage : 3.39300 V Hi Volt Alarm Thresh : 3.70000 V Low Volt Alarm Thresh: 2.90000 V Voltage Alarm : None Tx Bias Current (0 to 131 mA): Ch1 Tx Current : 14.60200 mA Hi Tx Crnt Alarm Thresh : 100.00000 mA Low Tx Crnt Alarm Thresh: 1.00000 mA Ch1 Tx Current Alarm : None Tx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Tx Power : 0.63070 mW / -2.00177 dBm Hi Tx Power Alarm Thresh : 1.99530 mW / 3.00008 dBm Low Tx Power Alarm Thresh: 0.10000 mW / -10.00000 dBm Ch1 Tx Power Alarm : None Rx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Rx Power : 0.71050 mW / -1.48436 dBm Hi Rx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Rx Power Alarm Thresh: 0.00060 mW / -32.21849 dBm Ch1 Rx Power Alarm : None Vendor Date Code (dd-mm-yyyy): 08-07-2024

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, OSP1250-3140DCR (SFP-1G-EX) modules were connected using 40km single mode fiber (SMF) 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 40km single mode fiber link.

Appendix A. Document Revision

Version No	Date	Description
V1.0/EN	2026-01-06	Preliminary test report