

Transceiver Test Report

PN: OPB1250-3520DCR / OPB1250-5320DCR
(SFP-1G-BX-U / SFP-1G-BX-D)

I. Test Purpose

By building realistic switch use cases, we test whether the OPB1250-3520DCR (SFP-1G-BX-U) & OPB1250-5320DCR (SFP-1G-BX-D) 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	OPB1250-3520DCR	25E4403777	1000BASE-BX SFP BiDi 1310nm-TX/1550nm-RX 20km Transceiver
OPTCORE	OPB1250-5320DCR	25E4403736	1000BASE-BX SFP BiDi 1550nm-TX/1310nm-RX 20km Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Mellanox	SN2410	3.10.4006
OPTCORE	LC-LC-SM-S20KM	20km simplex LC single mode patch cable

IV. Test Data

4.1 Compatibility Test

Test Data	 <pre>switch-3858d4 [standalone: master] # show interfaces status</pre> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Port</th> <th>Operational state</th> <th>Admin</th> <th>Speed</th> <th>MTU</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Port	Operational state	Admin	Speed	MTU	Description						
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	Down	Enabled	Unknown	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	Down	Enabled	Unknown	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	Up	Enabled	1G	9216 -
	Eth1/52	Down	Enabled	Unknown	9216-
	Eth1/53	Up	Enabled	1G	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	<pre> switch-3858d4 [standalone: master] # show interfaces ethernet 1/15 transceiver diagnostics Port 1/15 transceiver diagnostic data: Temperature (-127C to +127C): Temperature : 17 C Hi Temp Alarm Thresh : 90 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None Voltage (0 to 6.5535 V): Voltage : 3.38520 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 : 21.85400 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 : 0.21530 mW / -6.66956 dBm Hi Tx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Tx Power Alarm Thresh: 0.04470 mW / -13.49692 dBm Ch1 Tx Power Alarm : None Rx Power (0 mW to 6.5535 mW / 8.1647 dBm): </pre>
-----------	--

	<p>Ch1 Rx Power : 0.34640 mW / -4.60422 dBm Hi Rx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Rx Power Alarm Thresh: 0.00500 mW / -23.01030 dBm Ch1 Rx Power Alarm : None</p> <p>Vendor Date Code (dd-mm-yyyy): 13-12-2024</p> <p>switch-3858d4 [standalone: master] # show interfaces ethernet 1/19 transceiver diagnostics</p> <p>Port 1/19 transceiver diagnostic data:</p> <p>Temperature (-127C to +127C): Temperature : 15 C Hi Temp Alarm Thresh : 90 C Low Temp Alarm Thresh: -10 C Temperature Alarm : None</p> <p>Voltage (0 to 6.5535 V): Voltage : 3.38520 V Hi Volt Alarm Thresh : 3.70000 V Low Volt Alarm Thresh: 2.90000 V Voltage Alarm : None</p> <p>Tx Bias Current (0 to 131 mA): Ch1 Tx Current : 17.24800 mA Hi Tx Crnt Alarm Thresh : 100.00000 mA Low Tx Crnt Alarm Thresh: 1.00000 mA Ch1 Tx Current Alarm : None</p> <p>Tx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Tx Power : 0.33100 mW / -4.80172 dBm Hi Tx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Tx Power Alarm Thresh: 0.04470 mW / -13.49692 dBm Ch1 Tx Power Alarm : None</p> <p>Rx Power (0 mW to 6.5535 mW / 8.1647 dBm): Ch1 Rx Power : 0.19240 mW / -7.15795 dBm Hi Rx Power Alarm Thresh : 1.25890 mW / 0.99991 dBm Low Rx Power Alarm Thresh: 0.00500 mW / -23.01030 dBm Ch1 Rx Power Alarm : None</p> <p>Vendor Date Code (dd-mm-yyyy): 13-12-2024</p>
<p>Test Conclusion</p>	<p>After testing, the above transceiver on the Mellanox SN2410 DDM is normally identified, the parameters do not exceed thresholds, and the transceiver operates normally.</p>

4.3 Transmission Distance Test

Test Conclusion	In this test, OPB1250-3520DCR (SFP-1G-BX-U) & OPB1250-5320DCR (SFP-1G-BX-D) modules were connected using 20km 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 20km single mode fiber link.
-----------------	---

Appendix A. Document Revision

Version No	Date	Description
V1.0/EN	2026-02-03	Preliminary test report

For more information, visit us on the web at www.optcore.net



V1.0/EN Copyright © 2026 Optcore Technology Co., Ltd. All rights reserved. Optcore, Optcore logo are registered trademarks of Optcore Technology Co., Ltd. All other brands, product names, or trademarks mentioned are the property of their respective owners. Specifications and product availability are subject to change without notice. Optcore assumes no responsibility for inaccuracies contained herein.

