OPTCORE

# Transceiver Test Report

PN: OPB10G-2310DCR / OPB10G-3210DCR
(SFP-10G-BX10-U / SFP-10G-BX10-D)

Test by: Maddy | Date: 2025/12/30

# I. Test Purpose

By building realistic switch use cases, we test whether the OPB10G-2310DCR (SFP-10G-BX10-U) & OPB10G-3210DCR (SFP-10G-BX10-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 | OPB10G-3210DCR | 25I4400229 | 10G SFP+ BiDi 1330nm-TX/1270nm-RX 10km Transceiver |
| OPTCORE | OPB10G-2310DCR | 25I4400283 | 10G SFP+ BiDi 1270nm-TX/1330nm-RX 10km Transceiver |

## 3.2 Test Equipment Used

| Equipment Brand | Equipment Model | Software Version/Note |
|---|---|---|
| Mellanox | SN2410 | 3.10.4006 |
| OPTCORE | LC-LC-SM-S10KM | 10km simplex LC single mode patch cable |

# IV. Test Data

## 4.1 Compatibility Test

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| Test Data |  <br>switch-3858d4 [standalone: master] # show interfaces ethernet 1/13 transceiver<br>Port 1/13 state<br>identifier : SFP/SFP+/SFP28<br>cable/module type : Optical cable/ module |

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|---|---|
| | ethernet speed and type: 10GBASE - LR, Unspecified<br>vendor : OPTCORE<br>supported cable length : 10000m SMF ,10000m SMF ,280m OM1<br>part number : OPB10G-3210DCR<br>revision : A<br>serial number : 25I4400283<br>switch-3858d4 [standalone: master] # show interfaces ethernet 1/15 transceiver<br>Port 1/15 state<br>identifier : SFP/SFP+/SFP28<br>cable/module type : Optical cable/ module<br>ethernet speed and type: 10GBASE - LR, Unspecified<br>vendor :OPTCORE<br>supported cable length : 10000m SMF ,10000m SMF<br>part number : OPB10G-2310DCR<br>revision : A<br>serial number : 25I4400229 |
| 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

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| Test Data | switch-3858d4 [standalone: master] # show interfaces ethernet 1/13 transceiver diagnostics<br><br>Port 1/13 transceiver diagnostic data:<br>Temperature (-127C to +127C):<br>Temperature : 8 C<br>Hi Temp Alarm Thresh : 105 C<br>Low Temp Alarm Thresh: -45 C<br>Temperature Alarm : None<br><br>Voltage (0 to 6.5535 V):<br>Voltage : 3.34250 V<br>Hi Volt Alarm Thresh : 3.70000 V<br>Low Volt Alarm Thresh: 2.90000 V<br>Voltage Alarm : None<br><br>Tx Bias Current (0 to 131 mA):<br>Ch1 Tx Current : 13.24800 mA<br>Hi Tx Crnt Alarm Thresh : 100.00000 mA<br>Low Tx Crnt Alarm Thresh: 1.00000 mA<br>Ch1 Tx Current Alarm : None<br><br>Tx Power (0 mW to 6.5535 mW / 8.1647 dBm): |

Ch1 Tx Power : 1.47910 mW / 1.69998 dBm
Hi Tx Power Alarm Thresh : 3.16230 mW / 5.00003 dBm
Low Tx Power Alarm Thresh: 0.19950 mW / -7.00057 dBm
Ch1 Tx Power Alarm : None

Rx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Rx Power : 0.87560 mW / -0.57694 dBm
Hi Rx Power Alarm Thresh : 3.16230 mW / 5.00003 dBm
Low Rx Power Alarm Thresh: 0.01000 mW / -20.00000 dBm
Ch1 Rx Power Alarm : None

Vendor Date Code (dd-mm-yyyy): 08-09-2025
switch-3858d4 [standalone: master] # show interfaces ethernet 1/15 transceiver diagnostics

Port 1/15 transceiver diagnostic data:
Temperature (-127C to +127C):
Temperature : 4 C
Hi Temp Alarm Thresh : 105 C
Low Temp Alarm Thresh: -45 C
Temperature Alarm : None

Voltage (0 to 6.5535 V):
Voltage : 3.34890 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 : 15.29600 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 : 0.67440 mW / -1.71082 dBm
Hi Tx Power Alarm Thresh : 3.16230 mW / 5.00003 dBm
Low Tx Power Alarm Thresh: 0.19950 mW / -7.00057 dBm
Ch1 Tx Power Alarm : None

Rx Power (0 mW to 6.5535 mW / 8.1647 dBm):
Ch1 Rx Power : 1.57800 mW / 1.98107 dBm
Hi Rx Power Alarm Thresh : 3.16230 mW / 5.00003 dBm
Low Rx Power Alarm Thresh: 0.01000 mW / -20.00000 dBm
Ch1 Rx Power Alarm : None

Vendor Date Code (dd-mm-yyyy): 08-09-2025

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| 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

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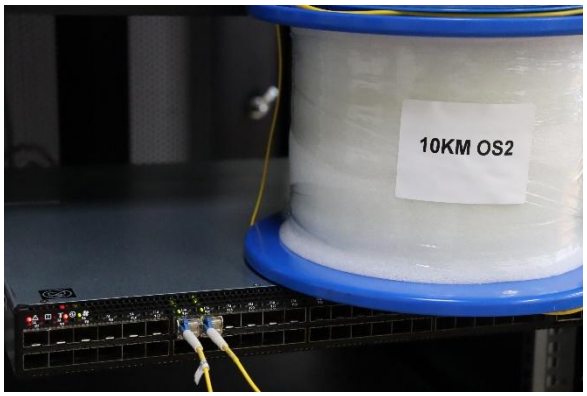
| Test Conclusion |  <br>In this test, OPB10G-2310DCR (SFP-10G-BX10-U) & OPB10G-3210DCR (SFP-10G-BX10-D) modules were connected using 10km single mode fiber (SMF) cables to verify link stability. The modules were inserted into the switches and established a point-to-point connection. The link was monitored 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 10km single mode fiber link. |

## Appendix A. Document Revision

| Version No | Date | Description |
|---|---|---|
| V1.0/EN | 2025-12-30 | Preliminary test report |