

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
Cisco	WS-C3750-24TS	12.2(25)SEE
OPTCORE	LC-LC-SM-S20KM	20km simplex LC single mode patch cable

IV. Test Data

4.1 Compatibility Test

<p>Test Data</p>	 <pre>C3750>show inventory NAME: "1", DESCR: "WS-C3750-24TS"</pre>
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	<p>PID: WS-C3750-24TS-E , VID: V05, SN: CAT1016Z182</p> <p>NAME: "GigabitEthernet1/0/1", DESCR: "1000BaseLX SFP"</p> <p>PID: GLC-BX-D , VID: V86, SN: 25E4403777</p> <p>NAME: "GigabitEthernet1/0/2", DESCR: "1000BaseLX SFP"</p> <p>PID: GLC-BX-U , VID: V86, SN: 25E4403736</p> <p>C3750>show interface status</p> <table border="1"> <thead> <tr> <th>Port</th> <th>Name</th> <th>Status</th> <th>Vlan</th> <th>Duplex</th> <th>Speed</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>Fa1/0/1</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/2</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/3</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/4</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/5</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/6</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/7</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/8</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/9</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/10</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/11</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/12</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/13</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/14</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/15</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/16</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/17</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/18</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/19</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/20</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/21</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Port</th> <th>Name</th> <th>Status</th> <th>Vlan</th> <th>Duplex</th> <th>Speed</th> <th>Type</th> </tr> </thead> <tbody> <tr><td>Fa1/0/22</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/23</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Fa1/0/24</td><td></td><td>notconnect</td><td>1</td><td>auto</td><td>auto</td><td>10/100BaseTX</td></tr> <tr><td>Gi1/0/1</td><td></td><td>connected</td><td>1</td><td>a-full</td><td>a-1000</td><td>1000BaseLX SFP</td></tr> <tr><td>Gi1/0/2</td><td></td><td>connected</td><td>1</td><td>a-full</td><td>a-1000</td><td>1000BaseLX SFP</td></tr> </tbody> </table>	Port	Name	Status	Vlan	Duplex	Speed	Type	Fa1/0/1		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/2		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/3		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/4		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/5		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/6		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/7		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/8		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/9		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/10		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/11		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/12		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/13		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/14		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/15		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/16		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/17		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/18		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/19		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/20		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/21		notconnect	1	auto	auto	10/100BaseTX	Port	Name	Status	Vlan	Duplex	Speed	Type	Fa1/0/22		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/23		notconnect	1	auto	auto	10/100BaseTX	Fa1/0/24		notconnect	1	auto	auto	10/100BaseTX	Gi1/0/1		connected	1	a-full	a-1000	1000BaseLX SFP	Gi1/0/2		connected	1	a-full	a-1000	1000BaseLX SFP
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<p>Test Conclusion</p>	<p>The optical transceiver was successfully recognized by the Cisco WS-C3750-24TS, with all identification information accurately displayed in the outputs.</p>																																																																																																																																																																																																				

4.2 Digital Diagnostic Monitoring

Test Data	C3750>show interface transceiver detail					
	mA: milliamperes, dBm: decibels (milliwatts), NA or N/A: not applicable.					
	++ : high alarm, + : high warning, - : low warning, -- : low alarm.					
	A2D readouts (if they differ), are reported in parentheses.					
	The threshold values are calibrated.					
		Temperature	High Alarm Threshold (Celsius)	High Warn Threshold (Celsius)	Low Warn Threshold (Celsius)	Low Alarm Threshold (Celsius)
	Port	(Celsius)				
	-----	-----	-----	-----	-----	-----
	Gi1/0/1	17.3	90.0	85.0	-5.0	-10.0
	Gi1/0/2	18.6	90.0	85.0	-5.0	-10.0
	Voltage	High Alarm Threshold (Volts)	High Warn Threshold (Volts)	Low Warn Threshold (Volts)	Low Alarm Threshold (Volts)	
Port	(Volts)					
-----	-----	-----	-----	-----	-----	
Gi1/0/1	3.28	3.70	3.60	3.00	2.90	
Gi1/0/2	3.30	3.70	3.60	3.00	2.90	
	Current	High Alarm Threshold (mA)	High Warn Threshold (mA)	Low Warn Threshold (mA)	Low Alarm Threshold (mA)	
Port	(milliamperes)					
-----	-----	-----	-----	-----	-----	
Gi1/0/1	14.9	100.0	90.0	3.0	1.0	
Gi1/0/2	16.7	100.0	90.0	3.0	1.0	
	Optical Transmit Power	High Alarm Threshold (dBm)	High Warn Threshold (dBm)	Low Warn Threshold (dBm)	Low Alarm Threshold (dBm)	
Port	(dBm)					
-----	-----	-----	-----	-----	-----	
Gi1/0/1	-2.0	3.0	2.0	-9.5	-10.-32768	
Gi1/0/2	-1.5	3.0	2.0	-9.5	-10.-32768	
	Optical Receive Power	High Alarm Threshold (dBm)	High Warn Threshold (dBm)	Low Warn Threshold (dBm)	Low Alarm Threshold (dBm)	
Port	(dBm)					
-----	-----	-----	-----	-----	-----	
Gi1/0/1	-1.7	0.9	-17788.-32768	-30.-32768	-32.2	
Gi1/0/2	-1.6	0.9	-17788.-32768	-30.-32768	-32.2	
Test Conclusion	After testing, the above transceiver on the Cisco WS-C3750-24TS 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, 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.
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Appendix A. Document Revision

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

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



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