

# Transceiver Test Report

PN: OSP10G-3110DCR (SFP-10G-LR)

**I. Test Purpose**

By building realistic switch use cases, we test whether the OSP10G-3110DCR (SFP-10G-LR) 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	OSP10G-3110DCR	24C4902562	10GBASE-LR SFP+ SMF 1310nm 10km Transceiver
OPTCORE	OSP10G-3110DCR	24C4902558	10GBASE-LR SFP+ SMF 1310nm 10km Transceiver

**3.2 Test Equipment Used**

Equipment Brand	Equipment Model	Software Version/Note
Dell	EMC S4148F-ON	10.5.5.6
OPTCORE	LC-LC-SM-D10KM	10km duplex LC single mode patch cable

IV. Test Data

4.1 Compatibility Test

Test Data					
	<pre>OS10# show inventory media</pre>				
	-----				
	System Inventory Media				
	-----				
		Node/Slot/Port	Form-Factor	Media	Serial-Number
	-----				
		1/1/1	Not Present		
		1/1/2	Not Present		
		1/1/3	Not Present		
		1/1/4	Not Present		
		1/1/5	Not Present		
		1/1/6	Not Present		
		1/1/7	Not Present		
		1/1/8	Not Present		
		1/1/9	Not Present		
		1/1/10	Not Present		
		1/1/11	Not Present		
		1/1/12	Not Present		
		1/1/13	Not Present		
		1/1/14	Not Present		
		1/1/15	SFP+	SFP+ 10GBASE-LR	24C4902562
		1/1/16	SFP+	SFP+ 10GBASE-LR	24C4902558
		1/1/17	Not Present		
		1/1/18	Not Present		
	1/1/19	Not Present			
	1/1/20	Not Present			
	1/1/21	Not Present			
	1/1/22	Not Present			
	1/1/23	Not Present			
	1/1/24	Not Present			
	1/1/25	Not Present			
	1/1/26	Not Present			
	1/1/27	Not Present			
	1/1/28	Not Present			
	1/1/29	Not Present			
	1/1/30	Not Present			
	1/1/31	Not Present			
	1/1/32	Not Present			

	1/1/33	Not Present
	1/1/34	Not Present
	1/1/35	Not Present
	1/1/36	Not Present
	1/1/37	Not Present
	1/1/38	Not Present
	1/1/39	Not Present
	1/1/40	Not Present
	1/1/41	Not Present
	1/1/42	Not Present
	1/1/43	Not Present
	1/1/44	Not Present
	1/1/45	Not Present
	1/1/46	Not Present
	1/1/47	Not Present
	1/1/48	Not Present
	1/1/49	Not Present
	1/1/50	Not Present
	1/1/51	Not Present
	1/1/52	Not Present
	1/1/53	Not Present
	1/1/54	Not Present
<b>Test Conclusion</b>	The optical transceiver was successfully recognized by the Dell EMC S4148F-ON, with all identification information accurately displayed in the outputs.	

**4.2 Digital Diagnostic Monitoring**

<b>Test Data</b>	<pre> OS10# show interface phy-eth SFP is present SFP1/1/15 Serial Base ID fields SFP1/1/15 Id = 3 SFP1/1/15 Ext Id = 4 SFP1/1/15 Connector = 7 SFP1/1/15 Transceiver Code = 0 SFP1/1/15 Encoding = 6 SFP1/1/15 BR nominal = 103 SFP1/1/15 Length(SFM) Km = 100 SFP1/1/15 Length(OM3) 2m = 0 SFP1/1/15 Length(OM2) 1m = 0 SFP1/1/15 Length(OM1) 1m = 0 SFP1/1/15 Length(copper) 1m = 0 SFP1/1/15 Vendor Rev = 410 SFP1/1/15 Laser wavelength = 1310nm SFP1/1/15 Tunable wavelength= 1310.0nm                 </pre>
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SFP1/1/15 Check code base = 0  
 SFP1/1/15 Serial Extended ID fields  
 SFP1/1/15 Options = 26  
 SFP1/1/15 BR max = 0  
 SFP1/1/15 BR min = 0  
 SFP1/1/15 Vendor SN = 24C4902562  
 SFP1/1/15 Datecode = 240318  
 SFP1/1/15 CheckCodeExt = 0

SFP1/1/15 Diagnostic Information

=====

SFP1/1/15 Rx Power Measurement type = 0

=====

SFP1/1/15 Temp High Alarm threshold = 0.0C  
 SFP1/1/15 Voltage High Alarm threshold = 0.0V  
 SFP1/1/15 Bias High Alarm threshold = 0.0mA  
 SFP1/1/15 Tx power High Alarm threshold = 0.000000 dBm  
 SFP1/1/15 Rx power High Alarm threshold = 0.000000 dBm  
 SFP1/1/15 Temp Low Alarm threshold = 0.0C  
 SFP1/1/15 Voltage Low Alarm threshold = 0.0V  
 SFP1/1/15 Bias Low Alarm threshold = 0.0mA  
 SFP1/1/15 Tx power Low Alarm threshold = 0.000000 dBm  
 SFP1/1/15 Rx power Low Alarm threshold = 0.000000 dBm

=====

SFP1/1/15 Temp High Warning threshold = 0.0C  
 SFP1/1/15 Voltage High Warning threshold = 0.0V  
 SFP1/1/15 Bias High Warning threshold = 0.0mA  
 SFP1/1/15 Tx power High Warning threshold = 0.000000 dBm  
 SFP1/1/15 Rx power High Warning threshold = 0.000000 dBm  
 SFP1/1/15 Temp Low Warning threshold = 0.0C  
 SFP1/1/15 Voltage Low Warning threshold = 0.0V  
 SFP1/1/15 Bias Low Warning threshold = 0.0mA  
 SFP1/1/15 Tx power Low Warning threshold = 0.000000 dBm  
 SFP1/1/15 Rx power Low Warning threshold = 0.000000 dBm

=====

SFP1/1/15 Temp High Alarm flag = False  
 SFP1/1/15 Voltage High Alarm flag = False  
 SFP1/1/15 Temp Low Alarm flag = False  
 SFP1/1/15 Voltage Low Alarm flag = False  
 SFP1/1/15 Temp High Warning flag = False  
 SFP1/1/15 Voltage High Warning flag = False  
 SFP1/1/15 Temp Low Warning flag = False  
 SFP1/1/15 Voltage Low Warning flag = False

=====


SFP1/1/15 Temperature = 11.25C  
 SFP1/1/15 Voltage = 3.331V

SFP1/1/15 Rate select state	= false
=====	
SFP Channel	= 0
SFP Tx Bias Current	= 14.527mA
SFP Tx power	= -0.701725 dBm
SFP Rx power	= -3.103360 dBm
SFP Bias High Alarm flag	= False
SFP Rx power High Alarm flag	= False
SFP Rx LOS state	= False
SFP Tx fault state	= False
SFP Tx disable state	= False
SFP Bias Low Alarm flag	= False
SFP Rx power Low Alarm flag	= False
SFP Bias High Warning flag	= False
SFP Rx power High Warning flag	= False
SFP Bias Low Warning flag	= False
SFP Rx power Low Warning flag	= False
SFP is present SFP1/1/16 Serial Base ID fields	
SFP1/1/16 Id	= 3
SFP1/1/16 Ext Id	= 4
SFP1/1/16 Connector	= 7
SFP1/1/16 Transceiver Code	= 0
SFP1/1/16 Encoding	= 6
SFP1/1/16 BR nominal	= 103
SFP1/1/16 Length(SFM) Km	= 100
SFP1/1/16 Length(OM3) 2m	= 0
SFP1/1/16 Length(OM2) 1m	= 0
SFP1/1/16 Length(OM1) 1m	= 0
SFP1/1/16 Length(copper) 1m	= 0
SFP1/1/16 Vendor Rev	= 410
SFP1/1/16 Laser wavelength	= 1310nm
SFP1/1/16 Tunable wavelength	= 1310.0nm
SFP1/1/16 Check code base	= 0
SFP1/1/16 Serial Extended ID fields	
SFP1/1/16 Options	= 26
SFP1/1/16 BR max	= 0
SFP1/1/16 BR min	= 0
SFP1/1/16 Vendor SN	= 24C4902558
SFP1/1/16 Datecode	= 240318
SFP1/1/16 CheckCodeExt	= 0
SFP1/1/16 Diagnostic Information	
=====	
SFP1/1/16 Rx Power Measurement type	= 0
=====	
SFP1/1/16 Temp High Alarm threshold	= 0.0C

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SFP1/1/16 Voltage High Alarm threshold = 0.0V
SFP1/1/16 Bias High Alarm threshold    = 0.0mA
SFP1/1/16 Tx power High Alarm threshold = 0.000000 dBm
SFP1/1/16 Rx power High Alarm threshold = 0.000000 dBm
SFP1/1/16 Temp Low Alarm threshold     = 0.0C
SFP1/1/16 Voltage Low Alarm threshold  = 0.0V
SFP1/1/16 Bias Low Alarm threshold     = 0.0mA
SFP1/1/16 Tx power Low Alarm threshold = 0.000000 dBm
SFP1/1/16 Rx power Low Alarm threshold = 0.000000 dBm
=====
SFP1/1/16 Temp High Warning threshold  = 0.0C
SFP1/1/16 Voltage High Warning threshold = 0.0V
SFP1/1/16 Bias High Warning threshold   = 0.0mA
SFP1/1/16 Tx power High Warning threshold = 0.000000 dBm
SFP1/1/16 Rx power High Warning threshold = 0.000000 dBm
SFP1/1/16 Temp Low Warning threshold    = 0.0C
SFP1/1/16 Voltage Low Warning threshold = 0.0V
SFP1/1/16 Bias Low Warning threshold    = 0.0mA
SFP1/1/16 Tx power Low Warning threshold = 0.000000 dBm
SFP1/1/16 Rx power Low Warning threshold = 0.000000 dBm
=====
SFP1/1/16 Temp High Alarm flag         = False
SFP1/1/16 Voltage High Alarm flag      = False
SFP1/1/16 Temp Low Alarm flag          = False
SFP1/1/16 Voltage Low Alarm flag       = False
SFP1/1/16 Temp High Warning flag       = False
SFP1/1/16 Voltage High Warning flag    = False
SFP1/1/16 Temp Low Warning flag        = False
SFP1/1/16 Voltage Low Warning flag      = False
=====
SFP1/1/16 Temperature                   = 19.75C
SFP1/1/16 Voltage                       = 3.352V
SFP1/1/16 Rate select state              = false
=====
SFP Channel                             = 0
SFP Tx Bias Current                      = 12.064mA
SFP Tx power                            = -2.814983 dBm
SFP Rx power                             = -0.193604 dBm
SFP Bias High Alarm flag                 = False
SFP Rx power High Alarm flag             = False
SFP Rx LOS state                        = False
SFP Tx fault state                      = False
SFP Tx disable state                    = False
SFP Bias Low Alarm flag                 = False
SFP Rx power Low Alarm flag             = False
SFP Bias High Warning flag              = False
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	<p>SFP Rx power High Warning flag = False                  SFP Bias Low Warning flag = False                  SFP Rx power Low Warning flag = False</p>
<p>Test Conclusion</p>	<p>After testing, the above transceiver on the Dell EMC S4148F-ON DDM is normally identified, the parameters do not exceed thresholds, and the transceiver operates normally.</p>

**4.3 Transmission Distance Test**

<p>Test Conclusion</p>	 <p>In this test, optical transceiver modules were connected using 10-kilometer OS2 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 over an 10-kilometer fiber link.</p>
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**Appendix A. Document Revision**

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

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