OPTCORE

Transceiver Test Report

PN: QSFP-40G-SR4

Test by: Maddy | Date: 2026/02/02

I. Test Purpose

By building realistic switch use cases, we test whether the QSFP-40G-SR4 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	QSFP-40G-SR4	25K4807128	40GBASE-SR4 QSFP+ 850nm 100m Transceiver
OPTCORE	QSFP-40G-SR4	25K4807127	40GBASE-SR4 QSFP+ 850nm 100m Transceiver

3.2 Test Equipment Used

Equipment Brand	Equipment Model	Software Version/Note
Cisco	Nexus 9000 C92160YC-X Switch	07.59
OPTCORE	MT-MPO/F-MPO/F-12OM3-100M-B-LS	100M Multimode OM3 MPO Fiber Trunk Cable,12-Fiber, Female, UPC, Polarity B
OPTCORE	MT-MPO/F-MPO/F-12OM4-150M-B-LS	150M Multimode OM4 MPO Fiber Trunk Cable,12-Fiber, Female, UPC, Polarity B

IV. Test Data

4.1 Compatibility Test

Test Data

switch# show interface status

Port	Name	Status	Vlan	Duplex	Speed	Type
mgmt0	--	notconnec	routed	auto	auto	--

Port	Name	Status	Vlan	Duplex	Speed	Type
Eth1/1	--	xcvrAbsen	routed	auto	auto	--
Eth1/2	--	xcvrAbsen	routed	auto	auto	--
Eth1/3	--	xcvrAbsen	routed	auto	auto	--
Eth1/4	--	xcvrAbsen	routed	auto	auto	--
Eth1/5	--	xcvrAbsen	routed	auto	auto	--
Eth1/6	--	xcvrAbsen	routed	auto	auto	--
Eth1/7	--	xcvrAbsen	routed	auto	auto	--
Eth1/8	--	xcvrAbsen	routed	auto	auto	--
Eth1/9	--	xcvrAbsen	routed	auto	auto	--
Eth1/10	--	xcvrAbsen	routed	auto	auto	--
Eth1/11	--	xcvrAbsen	routed	auto	auto	--
Eth1/12	--	xcvrAbsen	routed	auto	auto	--
Eth1/13	--	xcvrAbsen	routed	auto	auto	--
Eth1/14	--	xcvrAbsen	routed	auto	auto	--
Eth1/15	--	xcvrAbsen	routed	auto	auto	--
Eth1/16	--	xcvrAbsen	routed	auto	auto	--
Eth1/17	--	xcvrAbsen	routed	auto	auto	--
Eth1/18	--	xcvrAbsen	routed	auto	auto	--
Eth1/19	--	xcvrAbsen	routed	auto	auto	--
Eth1/20	--	xcvrAbsen	routed	auto	auto	--
Eth1/21	--	xcvrAbsen	routed	auto	auto	--
Eth1/22	--	xcvrAbsen	routed	auto	auto	--
Eth1/23	--	xcvrAbsen	routed	auto	auto	--
Eth1/24	--	xcvrAbsen	routed	auto	auto	--
Eth1/25	--	xcvrAbsen	routed	auto	auto	--
Eth1/26	--	xcvrAbsen	routed	auto	auto	--
Eth1/27	--	xcvrAbsen	routed	auto	auto	--
Eth1/28	--	xcvrAbsen	routed	auto	auto	--
Eth1/29	--	xcvrAbsen	routed	auto	auto	--

	Eth1/30	--	xcvrAbsen routed	auto	auto	--
	Eth1/31	--	xcvrAbsen routed	auto	auto	--
	Eth1/32	--	xcvrAbsen routed	auto	auto	--
	Eth1/33	--	xcvrAbsen routed	auto	auto	--
	Eth1/34	--	xcvrAbsen routed	auto	auto	--
	Eth1/35	--	xcvrAbsen routed	auto	auto	--
	Eth1/36	--	xcvrAbsen routed	auto	auto	--
	Eth1/37	--	xcvrAbsen routed	auto	auto	--
	Eth1/38	--	xcvrAbsen routed	auto	auto	--
	Eth1/39	--	xcvrAbsen routed	auto	auto	--
	Eth1/40	--	xcvrAbsen routed	auto	auto	--
	Eth1/41	--	xcvrAbsen routed	auto	auto	--
	Eth1/42	--	xcvrAbsen routed	auto	auto	--
	Eth1/43	--	xcvrAbsen routed	auto	auto	--
	Eth1/44	--	xcvrAbsen routed	auto	auto	--
	Eth1/45	--	xcvrAbsen routed	auto	auto	--
	Eth1/46	--	xcvrAbsen routed	auto	auto	--
	Eth1/47	--	xcvrAbsen routed	auto	auto	--
	Eth1/48	--	xcvrAbsen routed	auto	auto	--
	Eth1/49	--	connected routed	full	40G	QSFP-40G-SR4
	Eth1/50	--	xcvrAbsen routed	auto	auto	--
	Eth1/51	--	connected routed	full	40G	QSFP-40G-SR4
	Eth1/52	--	xcvrAbsen routed	auto	auto	--
	Eth1/53	--	xcvrAbsen routed	auto	auto	--
	Eth1/54	--	xcvrAbsen routed	auto	auto	--
Test Conclusion	The optical transceiver was successfully recognized by the Cisco Nexus9000 C92160YC-X switch, with all identification information accurately displayed in the outputs.					

4.2 Digital Diagnostic Monitoring

Test Data	switch# show interface transceiver details Ethernet1/49 transceiver is present type is QSFP-40G-SR4 name is OPTCORE part number is QSFP-40G-SR4 revision is 00 serial number is 25K4807128 nominal bitrate is 10300 MBit/sec per channel Link length supported for 50/125um OM2 fiber is 30 m Link length supported for 50/125um OM3 fiber is 100 m cisco id is 13 cisco extended id number is 16 Lane Number:1 Network Lane SFP Detail Diagnostics Information (internal calibration)

	Current Measurement	Alarms High	Alarms Low	Warnings High	Warnings Low
Temperature	19.69 C	85.00 C	-10.00 C	70.00 C	0.00 C
Voltage	3.22 V	3.59 V	2.90 V	3.50 V	3.09 V
Current	6.39 mA	15.00 mA	1.00 mA	12.00 mA	2.00 mA
Tx Power	-1.95 dBm	3.99 dBm	-10.60 dBm	2.39 dBm	-7.61 dBm
Rx Power	0.27 dBm	3.99 dBm	-18.23 dBm	2.39 dBm	-15.08 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:2 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current Measurement	Alarms High	Alarms Low	Warnings High	Warnings Low
Temperature	19.69 C	85.00 C	-10.00 C	70.00 C	0.00 C
Voltage	3.22 V	3.59 V	2.90 V	3.50 V	3.09 V
Current	6.29 mA	15.00 mA	1.00 mA	12.00 mA	2.00 mA
Tx Power	-1.97 dBm	3.99 dBm	-10.60 dBm	2.39 dBm	-7.61 dBm
Rx Power	0.28 dBm	3.99 dBm	-18.23 dBm	2.39 dBm	-15.08 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:3 Network Lane

SFP Detail Diagnostics Information (internal calibration)

	Current Measurement	Alarms High	Alarms Low	Warnings High	Warnings Low
Temperature	19.69 C	85.00 C	-10.00 C	70.00 C	0.00 C
Voltage	3.22 V	3.59 V	2.90 V	3.50 V	3.09 V
Current	6.18 mA	15.00 mA	1.00 mA	12.00 mA	2.00 mA
Tx Power	-2.00 dBm	3.99 dBm	-10.60 dBm	2.39 dBm	-7.61 dBm
Rx Power	0.30 dBm	3.99 dBm	-18.23 dBm	2.39 dBm	-15.08 dBm

Transmit Fault Count = 0

Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning

Lane Number:4 Network Lane

SFP Detail Diagnostics Information (internal calibration)

```
                    Current              Alarms                  Warnings
                    Measurement     High         Low         High              Low
  ------------------------------------------------------------------------
  Temperature     19.69 C          85.00 C      -10.00 C     70.00 C           0.00 C
  Voltage          3.22 V           3.59 V       2.90 V       3.50 V           3.09 V
  Current          6.60 mA         15.00 mA      1.00 mA     12.00 mA          2.00 mA
  Tx Power        -1.89 dBm         3.99 dBm   -10.60 dBm     2.39 dBm        -7.61 dBm
  Rx Power         0.28 dBm         3.99 dBm   -18.23 dBm     2.39 dBm       -15.08 dBm
  Transmit Fault Count = 0
  ------------------------------------------------------------------------
  Note: ++  high-alarm; +  high-warning; --  low-alarm; -  low-warning

Ethernet1/50
    transceiver is not present

Ethernet1/51
    transceiver is present
    type is QSFP-40G-SR4
    name is OPTCORE
    part number is QSFP-40G-SR4
    revision is 00
    serial number is 25K4807127
    nominal bitrate is 10300 MBit/sec per channel
    Link length supported for 50/125um OM2 fiber is 30 m
    Link length supported for 50/125um OM3 fiber is 100 m
    cisco id is 13
    cisco extended id number is 16

Lane Number:1 Network Lane
             SFP Detail Diagnostics Information (internal calibration)
  ------------------------------------------------------------------------
                    Current              Alarms                  Warnings
                    Measurement     High         Low         High              Low
  ------------------------------------------------------------------------
  Temperature     20.29 C          85.00 C      -10.00 C     70.00 C           0.00 C
  Voltage          3.23 V           3.59 V       2.90 V       3.50 V           3.09 V
  Current          6.62 mA         15.00 mA      1.00 mA     12.00 mA          2.00 mA
  Tx Power        -1.89 dBm         3.99 dBm   -10.60 dBm     2.39 dBm        -7.61 dBm
  Rx Power         0.12 dBm         3.99 dBm   -18.23 dBm     2.39 dBm       -15.08 dBm
  Transmit Fault Count = 0
  ------------------------------------------------------------------------
  Note: ++  high-alarm; +  high-warning; --  low-alarm; -  low-warning

Lane Number:2 Network Lane
             SFP Detail Diagnostics Information (internal calibration)
  ------------------------------------------------------------------------
```

	Current Alarms Warnings Measurement High Low High Low --- Temperature 20.29 C 85.00 C -10.00 C 70.00 C 0.00 C Voltage 3.23 V 3.59 V 2.90 V 3.50 V 3.09 V Current 6.57 mA 15.00 mA 1.00 mA 12.00 mA 2.00 mA Tx Power -1.90 dBm 3.99 dBm -10.60 dBm 2.39 dBm -7.61 dBm Rx Power -0.21 dBm 3.99 dBm -18.23 dBm 2.39 dBm -15.08 dBm Transmit Fault Count = 0 --- Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning Lane Number:3 Network Lane SFP Detail Diagnostics Information (internal calibration) --- Current Alarms Warnings Measurement High Low High Low --- Temperature 20.29 C 85.00 C -10.00 C 70.00 C 0.00 C Voltage 3.23 V 3.59 V 2.90 V 3.50 V 3.09 V Current 6.25 mA 15.00 mA 1.00 mA 12.00 mA 2.00 mA Tx Power -1.98 dBm 3.99 dBm -10.60 dBm 2.39 dBm -7.61 dBm Rx Power -0.45 dBm 3.99 dBm -18.23 dBm 2.39 dBm -15.08 dBm Transmit Fault Count = 0 --- Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning Lane Number:4 Network Lane SFP Detail Diagnostics Information (internal calibration) --- Current Alarms Warnings Measurement High Low High Low --- Temperature 20.29 C 85.00 C -10.00 C 70.00 C 0.00 C Voltage 3.23 V 3.59 V 2.90 V 3.50 V 3.09 V Current 6.77 mA 15.00 mA 1.00 mA 12.00 mA 2.00 mA Tx Power -1.85 dBm 3.99 dBm -10.60 dBm 2.39 dBm -7.61 dBm Rx Power -0.25 dBm 3.99 dBm -18.23 dBm 2.39 dBm -15.08 dBm Transmit Fault Count = 0 --- Note: ++ high-alarm; + high-warning; -- low-alarm; - low-warning
Test Conclusion	After testing, the above QSFP-40G-SR4 transceiver on the Cisco Nexus9000 C92160YC-X switch 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, optical transceiver modules were connected using 100-merter OM3 and 150-meter OM4 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 100-meter fiber link.

Appendix A. Document Revision

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