

IntegraOptics Pluggables Operability and Compatibility Testing

Testing was completed in Integra's Lab

Devices Under Test

Integra Part Number	OEM Compatible Part Number	Platform Tested	Product Description
SR850-25G-MM-ARDL-IO	N/A	Arista 7160	SFP28, 850nm, SR MMF 100m, 25G DDM, Arista/Dell Compatible

Responsible Engineers

Name	Email	Organization
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Results Overview

Integra Part Number	OEM	Recognition	Error/Alarm	Link	Compatibility Certified
SR850-25G-MM-ARDL-IO	N/A	PASS	PASS	PASS	PASS

Standard Compatibility Test Plan

The IntegraOptics' standard test plan consists of installing transceivers into the required lab elements with their interfaces configured appropriately. Each device then undergoes the following procedure to determine OEM compatibility as well as to verify correct operating performance. All IntegraOptics' transceivers must receive a "pass" rating on each of the below criteria for 100% compatible certification and subsequent GA release.

1. Initial plug in observations

- a. *Verify laser turn on – Laser turn on is typically used as a quick indicator of a transceivers compatibility.*
 - i. *Upon insertion, the transmitter light levels shall be recorded*
- b. *Observe system for error free operation – Errors consist of anomalies that severely impact a transceivers operation. Issues that may flag errors include:*
 - i. *I2C Communication Failures*
 - ii. *Electrical and/or Pin Timing Issues*
 - iii. *Code Issues resulting in host rejection and/or disabled interfaces*
 - iv. *Critical deviations from optical or electrical operating specifications*
- c. *Verify Host Recognition – Host recognition consists of determining if a part is recognized correctly. Successful recognition indicates a transceiver is communicating correctly with the host device. Parameters directly observed include:*
 - i. *Revision, Serial Number, and OEM Part ID*
 - ii. *Vendor Name and Vendor Part Number*

2. CLI Performance Observation

- a. *Observe Alarms and Warnings – General alarms consist of warnings indicating a transceiver is operating out of spec or indicates operation may not be error free, this test is typically performed using an appropriately attenuated fiber loop or active connection to another device. Issues that may flag alarms include:*
 - i. *Operation at an undesirable bit error rate or errored seconds*
 - ii. *DDM related alarms, operation above or below alarm thresholds for:*
 - *Transmit Power and Laser Bias*
 - *Receive Power*
 - *Temperature*
 - *Voltage*

Compatibility Test #1: SR850-25G-MM-ARDL-IO

Results:

1. Initial Plugin Observations
 - a. Verify Laser Turn On
 - i. Result: **Pass**
 - b. Observe System Error Free Operation
 - i. Errors: None
 - ii. Link: **Pass**
 - iii. Result: **Pass**
 - c. Verify Host Recognition
 - i. Revision, Serial Number, and OEM Part ID. Result: **Pass**
 - ii. Vendor Name and Vendor Part Number. Result: **Pass**
2. CLI Performance Observations
 - a. Observe Alarms and Warnings
 - i. Alarms: None
 - ii. Result: **Pass**
 - b. Observe Alarm Thresholds
 - i. Result: **Pass**

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Et25      notconnect 1      full 25G Not Present
Et26      notconnect 1      full 25G Not Present
Et27      notconnect 1      full 10G Not Present
Et28      notconnect 1      full 25G Not Present
Et29      notconnect 1      full 1G  Not Present
Et30      notconnect 1      full 25G Not Present
Et31      notconnect 1      full 25G Not Present
Et32      notconnect 1      full 25G Not Present
Et33      connected 1      full 25G 25GBASE-SR
Et34      notconnect 1      full 25G Not Present
Et35      connected 1      full 25G 25GBASE-SR
Et36      notconnect 1      full 25G Not Present
Et37      notconnect 1      full 25G Not Present
Et38      notconnect 1      full 25G Not Present

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32 Not Present
33 Arista Networks SR85025GMMI-ARDL EOPKCJ040010 01
34 Not Present
35 Arista Networks SR85025GMM-ARDL EOPKB7130196 01
36 Not Present

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R1-U14-ARISTA-DCS7160#show interfaces ethernet 35 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.

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Port	Temperature (Celsius)	High Alarm Threshold (Celsius)	High Warn Threshold (Celsius)	Low Alarm Threshold (Celsius)	Low Warn Threshold (Celsius)
Et35	35.88	80.00	75.00	-10.00	-5.00
Port	Voltage (Volts)	High Alarm Threshold (Volts)	High Warn Threshold (Volts)	Low Alarm Threshold (Volts)	Low Warn Threshold (Volts)
Et35	3.30	3.60	3.50	3.00	3.05
Port	Current (mA)	High Alarm Threshold (mA)	High Warn Threshold (mA)	Low Alarm Threshold (mA)	Low Warn Threshold (mA)
Et35	6.01	20.00	15.00	0.50	1.00
Port	Tx Power (dBm)	High Alarm Threshold (dBm)	High Warn Threshold (dBm)	Low Alarm Threshold (dBm)	Low Warn Threshold (dBm)
Et35	-1.42	4.40	3.40	-10.40	-9.40
Port	Rx Power (dBm)	High Alarm Threshold (dBm)	High Warn Threshold (dBm)	Low Alarm Threshold (dBm)	Low Warn Threshold (dBm)
Et35	-1.23	4.00	3.00	-14.29	-13.30

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R1-U14-ARISTA-DCS7160#

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