QSFP28-SFP28-CVR

OPTICAL TRANSCEIVER MODULE

Scenario Application Test Report (Arista)

CONTENTS

1. Test Purpose

By building test scenarios and simulating the customer's usage environment, we test whether the module's performance meets the customer's requirements.

2. Test Results Summary

Table 2: Test Results

Items	Test Data	Remarks
Multi-Version	Pass	/
Connectivity	Pass	/
Module Basic Information	Pass	/
Digital Diagnostic Monitoring	Pass	/

3. Test Environment

3.1 Test Equipment Used

Table 3-1: Test Equipment Used

Vendor	Device	Soft Version
Arista Switch	DCS-7020SR-24C2-R	4.29.2F
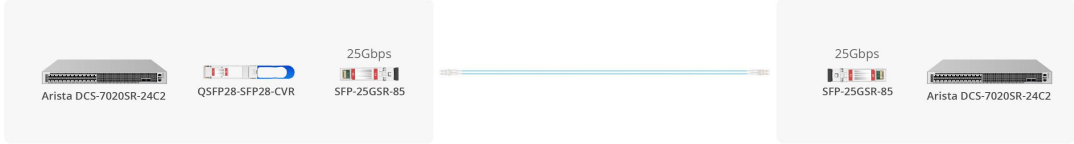
3.2 Test Sample

Table 3-2: Test Sample

Product ID	P/N	Serial Number
#178068	QSFP28-SFP28-CVR	A1930008986

4. Test Data

Table 4: Scenario Application Testing

Test Topology	Arista DCS-7020SR-24C2 — QSFP28-SFP28-CVR — SFP-25GSR-85 (25Gbps) ——— SFP-25GSR-85 (25Gbps) — Arista DCS-7020SR-24C2
Test Premise	1. Confirm the brand, quantity and placement of the switches to be tested. 2. Prepare control cables, test software and optical fiber patch cords. Power on the switches in advance. 3. Locate the Console port on the switch, which is usually marked as "CON" on the switch, although some switches may display it as "IOIOI" or a computer monitor icon, etc. Use a control cable to connect the switch to the computer. 4. Before connecting the software, it is necessary to confirm the connection port of the control cable. Go to the computer device manager, click on the ports (COM and LPT) to view the ports. After confirming the ports, proceed with the next step.
Test Method	Click to open the SecureCRT Portable software and enter the quick connection interface. ① Protocol selection: Serial ② Port selection: The same as the port you viewed in the previous step ③ Baud rate selection: The same as the baud rate of the port on the target switch ④ Flow control: Do not check this option The remaining configurations can keep the default values.
Test Steps	① Insert the module into the corresponding rate port of the switch, and connect the TX-RX ends with an optical fiber jumper or an MTP self-loop device. Observe whether the module is connected. If not connected, please check the jumper connection or the switch port configuration (login to the switch is required). ② Enter the test interface, input the account and password, log in to the switch and enter privileged mode. ③ According to the switch command configuration table, input the corresponding test command and view the relevant information: port status (connectivity), connection rate, alarm status, module basic information, DDM information, etc. Determine whether it meets the requirements.

Test Information	**1. Read the switch model name and software version, and read the status of all ports on the switch**

FS-DCS-7020SR-24C2-R#show version
Arista DCS-7020SR-24C2-R
Hardware version: 11.02
Serial number: JPE21283793
Hardware MAC address: 2cdd.e999.4a17
System MAC address: 2cdd.e999.4a17

Software image version: 4.29.2F
Architecture: i686
Internal build version: 4.29.2F-30640700.4292F
Internal build ID: d65c8013-3e2b-4be9-ad9e-652efbbce887
Image format version: 3.0
Image optimization: Sand-4GB

Uptime: 6 minutes
Total memory: 8098896 kB
Free memory: 6305468 kB

FS-DCS-7020SR-24C2-R#
FS-DCS-7020SR-24C2-R#show interfaces status
```
Port     Name Status      Vlan   Duplex Speed  Type           Flags Encapsulation
Et1           notconnect 1      full   10G    Not Present
Et2           notconnect 1      full   10G    Not Present
Et3           notconnect 1      full   10G    Not Present
Et4           notconnect 1      full   10G    Not Present
Et5           notconnect 1      full   10G    Not Present
Et6           notconnect 1      full   10G    Not Present
Et7           notconnect 1      full   10G    Not Present
Et8           notconnect 1      full   10G    Not Present
Et9           notconnect 1      full   10G    Not Present
Et10          notconnect 1      full   10G    Not Present
Et11          notconnect 1      full   10G    Not Present
Et12          notconnect 1      full   10G    Not Present
Et13          notconnect 1      full   10G    Not Present
Et14          notconnect 1      full   10G    Not Present
Et15          notconnect 1      full   10G    Not Present
Et16          notconnect 1      full   10G    Not Present
Et17          notconnect 1      full   10G    Not Present
Et18          notconnect 1      full   10G    Not Present
Et19          notconnect 1      full   10G    Not Present
Et20          notconnect 1      full   10G    Not Present
Et21          notconnect 1      full   25G    Not Present
Et22          notconnect 1      full   25G    Not Present
Et23          notconnect 1      full   25G    Not Present
Et24          notconnect 1      full   25G    Not Present
Et25/1        connected  1      full   25G    100GBASE-SR4
Et25/2        notconnect 1      full   25G    100GBASE-SR4
Et25/3        notconnect 1      full   25G    100GBASE-SR4
Et25/4        notconnect 1      full   25G    100GBASE-SR4
Et26/1        connected  1      full   25G    100GBASE-SR4
Et26/2        notconnect 1      full   25G    100GBASE-SR4
Et26/3        notconnect 1      full   25G    100GBASE-SR4
Et26/4        notconnect 1      full   25G    100GBASE-SR4
Ma1           notconnect routed auto   auto   10/100/1000
```

2. Read the module's basic information from the switch side

FS-DCS-7020SR-24C2-R#show interfaces ethernet 25/1
Ethernet25/1 is up, line protocol is up (connected)
  Hardware is Ethernet, address is 2cdd.e999.4a30 (bia 2cdd.e999.4a30)
  Ethernet MTU 10178 bytes, Ethernet MRU 10200 bytes, BW 25000000 kbit
  Full-duplex, 25Gb/s, auto negotiation: off, uni-link: disabled
  Up 2 minutes, 5 seconds
  Loopback Mode : None
  3 link status changes since last clear
  Last clearing of "show interface" counters 0:07:16 ago
  5 minutes input rate 28 bps (0.0% with framing overhead), 0 packets/sec
  5 minutes output rate 191 bps (0.0% with framing overhead), 0 packets/sec
    7 packets input, 1335 bytes
    Received 0 broadcasts, 7 multicast
    0 runts, 0 giants
    0 input errors, 0 CRC, 0 alignment, 0 symbol, 0 input discards |

Test Information

```
        0 PAUSE input
        68 packets output, 8838 bytes
        Sent 0 broadcasts, 68 multicast
        0 output errors, 0 collisions
        0 late collision, 0 deferred, 0 output discards
        0 PAUSE output
FS-DCS-7020SR-24C2-R#
FS-DCS-7020SR-24C2-R#show interfaces ethernet 26/1
Ethernet26/1 is up, line protocol is up (connected)
   Hardware is Ethernet, address is 2cdd.e999.4a34 (bia 2cdd.e999.4a34)
   Ethernet MTU 10178 bytes, Ethernet MRU 10200 bytes, BW 25000000 kbit
   Full-duplex, 25Gb/s, auto negotiation: off, uni-link: disabled
   Up 2 minutes, 10 seconds
   Loopback Mode : None
   3 link status changes since last clear
   Last clearing of "show interface" counters 0:07:20 ago
   5 minutes input rate 197 bps (0.0% with framing overhead), 0 packets/sec
   5 minutes output rate 27 bps (0.0% with framing overhead), 0 packets/sec
      71 packets input, 9207 bytes
      Received 0 broadcasts, 71 multicast
      0 runts, 0 giants
      0 input errors, 0 CRC, 0 alignment, 0 symbol, 0 input discards
      0 PAUSE input
      7 packets output, 1335 bytes
      Sent 0 broadcasts, 7 multicast
      0 output errors, 0 collisions
      0 late collision, 0 deferred, 0 output discards
      0 PAUSE output
FS-DCS-7020SR-24C2-R#
```

3. Read the DDM information of the module

```
FS-DCS-7020SR-24C2-R#
FS-DCS-7020SR-24C2-R#show interfaces ethernet 25/1 transceiver detail
mA: milliamperes, dBm: decibels (milliwatts), NA or N/A: not applicable.
A2D readouts (if they differ), are reported in parentheses.
The threshold values are calibrated.
                         High Alarm  High Warn   Low Alarm   Low Warn
           Temperature   Threshold   Threshold   Threshold   Threshold
Port       (Celsius)     (Celsius)   (Celsius)   (Celsius)   (Celsius)
-------    ------------  ----------  ----------  ----------  ----------
Et25/1     33.54         80.00       70.00       -10.00      0.00
                         High Alarm  High Warn   Low Alarm   Low Warn
           Voltage       Threshold   Threshold   Threshold   Threshold
Port       (Volts)       (Volts)     (Volts)     (Volts)     (Volts)
-------    ------------  ----------  ----------  ----------  ----------
Et25/1     3.33          3.63        3.46        2.97        3.13
                         High Alarm  High Warn   Low Alarm   Low Warn
           Current       Threshold   Threshold   Threshold   Threshold
Port       (mA)          (mA)        (mA)        (mA)        (mA)
-------    ------------  ----------  ----------  ----------  ----------
Et25/1     7.06          14.00       13.00       2.00        3.00
                         High Alarm  High Warn   Low Alarm   Low Warn
           Tx Power      Threshold   Threshold   Threshold   Threshold
Port       (dBm)         (dBm)       (dBm)       (dBm)       (dBm)
-------    ------------  ----------  ----------  ----------  ----------
Et25/1     -0.17         5.40        2.40        -11.40      -8.40
                         High Alarm  High Warn   Low Alarm   Low Warn
           Rx Power      Threshold   Threshold   Threshold   Threshold
Port       (dBm)         (dBm)       (dBm)       (dBm)       (dBm)
-------    ------------  ----------  ----------  ----------  ----------
Et25/1     -0.27         5.40        2.40        -13.31      -10.30
FS-DCS-7020SR-24C2-R#
FS-DCS-7020SR-24C2-R#show interfaces ethernet 26/1 transceiver detail
mA: milliamperes, dBm: decibels (milliwatts), NA or N/A: not applicable.
A2D readouts (if they differ), are reported in parentheses.
The threshold values are calibrated.
                         High Alarm  High Warn   Low Alarm   Low Warn
           Temperature   Threshold   Threshold   Threshold   Threshold
Port       (Celsius)     (Celsius)   (Celsius)   (Celsius)   (Celsius)
-------    ------------  ----------  ----------  ----------  ----------
Et26/1     28.18         80.00       70.00       -10.00      0.00
                         High Alarm  High Warn   Low Alarm   Low Warn
           Voltage       Threshold   Threshold   Threshold   Threshold
Port       (Volts)       (Volts)     (Volts)     (Volts)     (Volts)
-------    ------------  ----------  ----------  ----------  ----------
Et26/1     3.33          3.63        3.46        2.97        3.13
                         High Alarm  High Warn   Low Alarm   Low Warn
           Current       Threshold   Threshold   Threshold   Threshold
Port       (mA)          (mA)        (mA)        (mA)        (mA)
-------    ------------  ----------  ----------  ----------  ----------
Et26/1     7.42          14.00       13.00       2.00        3.00
                         High Alarm  High Warn   Low Alarm   Low Warn
           Tx Power      Threshold   Threshold   Threshold   Threshold
Port       (dBm)         (dBm)       (dBm)       (dBm)       (dBm)
-------    ------------  ----------  ----------  ----------  ----------
Et26/1     -0.11         5.40        2.40        -11.40      -8.40
                         High Alarm  High Warn   Low Alarm   Low Warn
           Rx Power      Threshold   Threshold   Threshold   Threshold
Port       (dBm)         (dBm)       (dBm)       (dBm)       (dBm)
-------    ------------  ----------  ----------  ----------  ----------
Et26/1     0.05          5.40        2.40        -13.31      -10.30
FS-DCS-7020SR-24C2-R#
```

Test Conclusion	After completing the above test content, all the test information should be copied and pasted into a TXT document.
Remarks	/