

Technical Specification

for

40 / 100 Gbps QSFP28 Checker

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1. General Description

The 40 /100 Gbps SFP28 Checker is an instrument which combines the Serial Pattern Generator, Bit Error Rate Analyzer, and data communication. It provides common transmission rate for **40G Ethernet, 100G Ethernet, and 128G Fiber Channel.**



The 40 /100 Gbps QSFP28 Checker can help you to read the internal memory EEPROM of the SFP and displays details contents registered into such as the Part Number, Vendor Name , wavelength, description, and range.

With a QSFP+ / QSFP28 that is with digital diagnostics, the QSFP Checker can be used to monitor all DDM information.

The friendly graphic user interface (GUI) provides clear monitoring for bit error rate, bit error counter, timer, QSFP status, and selection of data rate and PRBS.

2. Features

- Pocket size design.
- No warm up time required.
- Connects to a standard PC / laptop with Windows OS via USB connection
- 40G QSFP+ / 100G QSFP28 .
- 10G SFP+ / 25G SFP28 (QSFP to SFP adapter required)
- Full function GUI
- Popular USB connection.

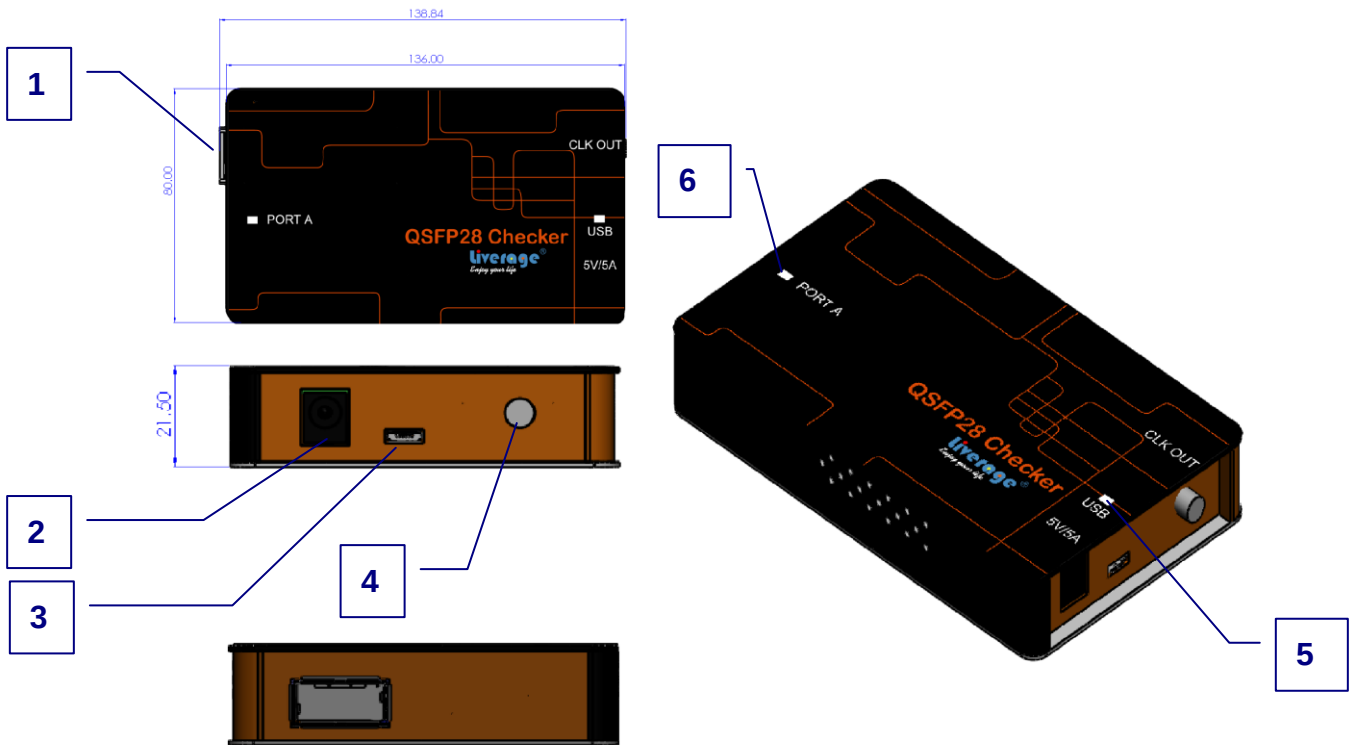
3. Applications

- QSFP transceiver qualification to verify correct QSFP
- To confirm proper transmit and receive signal levels
- Optical reference signal
- Bit error rate test.
- To verify proper encoding during the manufacturing

4. Specification

Main Frame	
QSFP ports	Standard QSFP 48pin with Cage
Operating Temp.	0℃ ~ 50℃
Storage Temp.	-10℃ ~ 70℃
Transmission rate (per channel)	10 Gbps \ 25 Gbps \ 28 Gbps
Pattern	PRBS7 、 PRBS23 、 PRBS31
Power Supply	5V / 5A
Weight	0.5 Kg

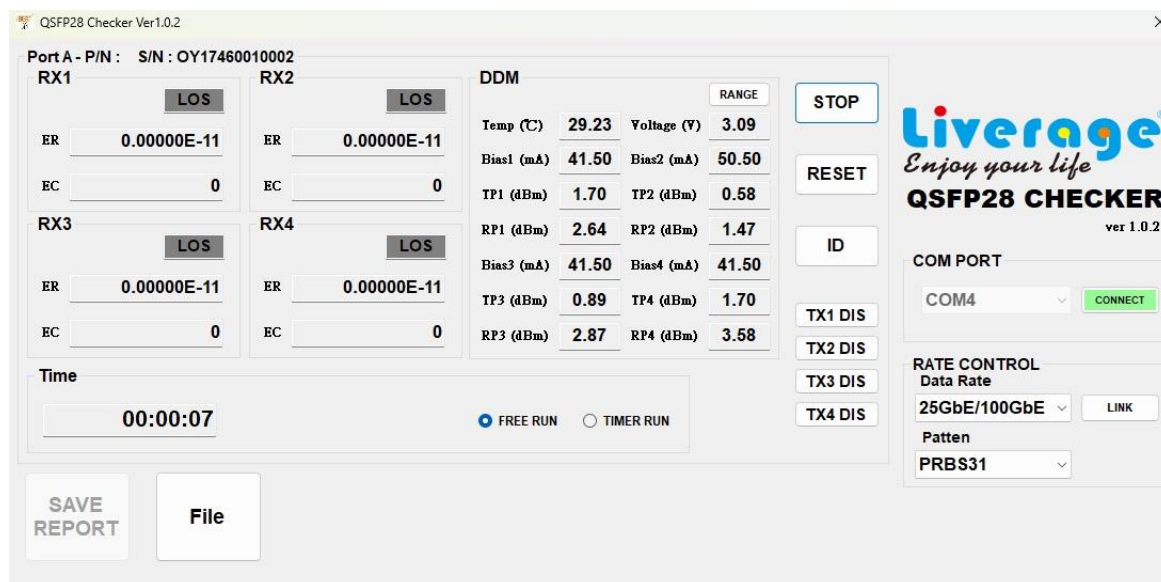
5. Elements & Operating Instructions



■ Elements:

1. **QSFP Plug-In Cage (port A)** : QSFP Plug-In port, for bit error rate test.
2. **Power Input** : DC power input 5V / 5A.
3. **Micro USB** : USB port. Connect to host via a standard USB cable.
4. **Clock Output** : Clock output for Eye Diagram Scope's trigger.
5. **LED Status for USB** : LED Status for USB Connection to Computer.
6. **LED Status for QSFP** : LED Status for Plug in QSFP module, RX LOS or Bit error rate.

■ Operating Instructions:



The screenshot shows the QSFP28 Checker Ver1.0.2 software interface. It features a top status bar with 'Port A - P/N: S/N : OY17460010002'. The main area is divided into sections for RX1, RX2, RX3, and RX4, each displaying 'LOS' and 'ER' (Error Rate) values. A central 'DDM' section shows various parameters like Temp (°C), Voltage (V), Bias1 (mA), Bias2 (mA), TP1 (dBm), TP2 (dBm), RP1 (dBm), RP2 (dBm), Bias3 (mA), Bias4 (mA), TP3 (dBm), TP4 (dBm), RP3 (dBm), and RP4 (dBm). On the right, there are buttons for 'STOP', 'RESET', 'ID', 'TX1 DIS', 'TX2 DIS', 'TX3 DIS', and 'TX4 DIS'. A 'COM PORT' section shows 'COM4' selected and a 'CONNECT' button. A 'RATE CONTROL' section shows 'Data Rate' set to '25GbE/100GbE' and 'Pattern' set to 'PRBS31', with a 'LINK' button. At the bottom left, there are 'SAVE REPORT' and 'File' buttons. A 'Time' section shows a timer at '00:00:07' and radio buttons for 'FREE RUN' and 'TIMER RUN'.

1. Connect the QSFP28 Checker to the PC by connecting the USB interface.
2. Confirm COM PORT to Connect.
3. Plug in the QSFP Transceiver Module.
4. Select "Data Rate" and "Pattern".
5. Click "LINK".
6. Click "START" to start bit error rate test function.
7. Click "STOP" to stop bit error rate test function.
8. Click "RESET" button is to clear bit error rate test data.
9. Click "ID" to show A0h table information.
10. Click "File" to save the data path.

Click "SAVE REPORT" to save the data report

6. Maintenance

Like any other type of electronic equipment, this QSFP28 checker should be keep away from water, high humidity, dust, electricity, and environments of extreme temperatures. Do not drop this QSFP28 checker on any hard surface. Internal modification of any of the QSFP28 checker components can cause a malfunction and will invalidate the manufacturer's warranty.

7. Warranty

The manufacturer warrants this product to be free of defects in workmanship and materials for a period of 1 year after purchase. This warranty is solely limited to the repair or replacement of the original parts. All other costs are the sole responsibility of the owner. This warranty does not cover any defects, damage, or deterioration due to misuse, alteration, or negligence.

8. Ordering Information:

Part Number	Media	Description
S2007100999Q	QSFP28	40G / 100G Bit Error Rate Testing

9. Service Contacts

Please contact us:

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10. Record of Revisions

Record of Revisions		
Rev.	Date	Description of Change
VER A	2022-09-16	Primary
VER B	2024-05-14	Add the Ordering Information