

## Quick Card

# T-BERD<sup>®</sup>/MTS-5800 Network Tester CPRI Check SFP/SFP+ Loopback Testing

This quick card describes how to use the T-BERD/MTS 5800v2 to verify that an optical transceiver (SFP or SFP+) supports a given CPRI rate.

### Equipment Requirements:

- T-BERD/MTS-5800v2 equipped with the following:
  - BERT software release V26.2 or greater
  - CPRI test options:
    - C512GCPRI for CPRI Rate 2 (1228.8M)
    - C524GCPRI for CPRI Rate 3 (2457.6M)
    - C549GCPRI for CPRI Rate 5 (4915.2M)
    - C598GCPRI for CPRI Rate 7 (9830.4M)
- Single mode LC loopback plug or LC-LC jumper cable
- Fiber optic inspection microscope (VIAVI P5000i or FiberChek Probe)
- Fiber optic cleaning supplies



Figure 1: Equipment Requirements

### Fiber Inspection Guidelines:

- Use the VIAVI P5000i or FiberChek Probe microscope to inspect the jumper cable or loopback plug before connection to the optical transceiver.
- Focus the fiber on the screen. If dirty, clean the connector.
- If it appears clean, run inspection test.
- If it fails, clean the fiber and re-run inspection test.
- Repeat until it passes.

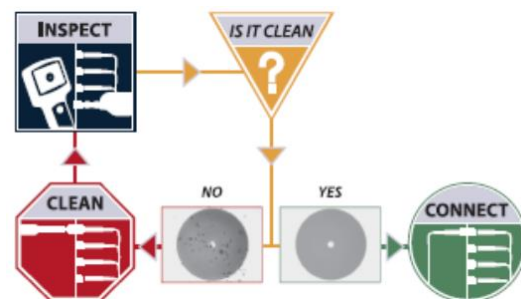


Figure 2: Inspect Before You Connect (IBYC)

### Connect Optics Under Test:

1. Insert optics under test into the Port 1 slot on the top of the T-BERD/MTS 5800v2.
2. After inspecting the fiber end faces, connect the Tx and Rx ports using an LC-LC jumper cable or loopback.



Figure 3: T-BERD/MTS 5800v2 Dual Port mainframe

### Launch Test:


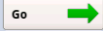
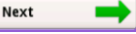
1. Press the Power button  to turn on the test set.
2. Using the **Select Test** menu, **Quick Launch** menu, or **Job Manager**, launch the **CPRI** ► **Rates 1-7** ► **CPRI Check** ► **Terminate** test on port 1.
3. Tap the bottom  button to **Start a New Configuration**.



Figure 4: CPRI Check Startup screen

### Configure Test:

1. Select "**Hard Loop**" for the **Far-end Device**.
2. Tap  to continue.

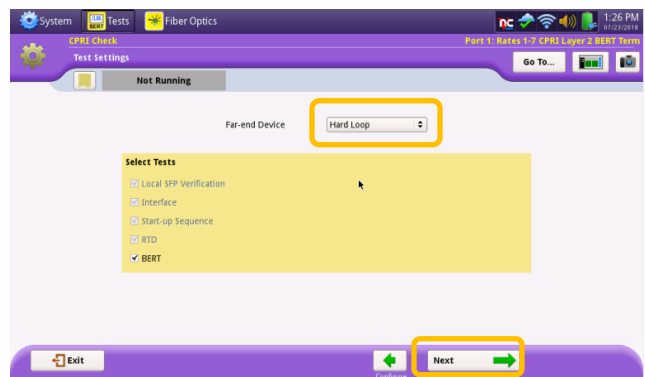





Figure 5: Test Settings

3. In the **CPRI Link Test Settings** configuration screen, configure settings as follows:
  - For a quick test, set **CPRI Link Test Duration** to **1 Minute**. For a thorough test, set as follows:
    - i. Line Rate 2 (1228.8 Mbps): 40 min.
    - ii. Line Rate 3 (2457.6 Mbps): 20 min.
    - iii. Line Rate 5 (4915.2 Mbps): 10 min
    - iv. Line Rate 7 (9830.0 Mbps): 5 min.
  - Set **Pattern Mode** to **ANSI**.
  - Set **Pattern** to **2^23-1 ANSI**.

4. Tap , , and  to proceed to the **Local SFP Verification** screen.

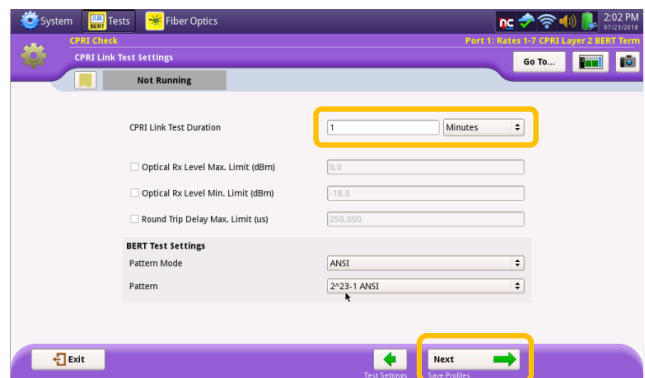



Figure 6: CPRI Link Test Settings

### Run Test:

1. Select the **CPRI Rate** to test.
2. Verify that **Signal Present**, **Sync Acquired**, and **Frame Sync** LEDs are all green.
3. Press  to proceed to the **Run CPRI Tests** screen.

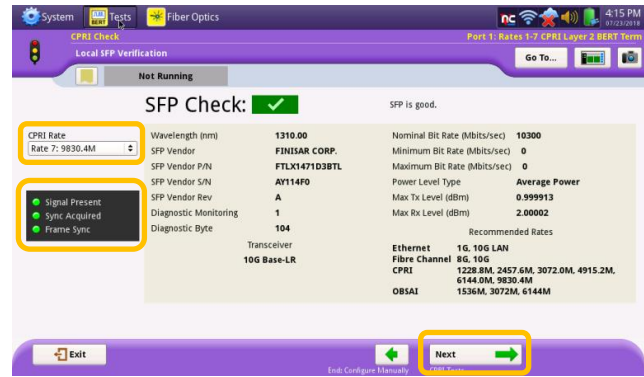





Figure 7: Local SFP Verification

4. Tap **Run Test** to start the test.
5. At the end of the test duration, Pass/Fail status for each scheduled test will be indicated by green checkmark, , or red x, . Tests for which no pass/fail threshold was specified will have a blue checkmark, .

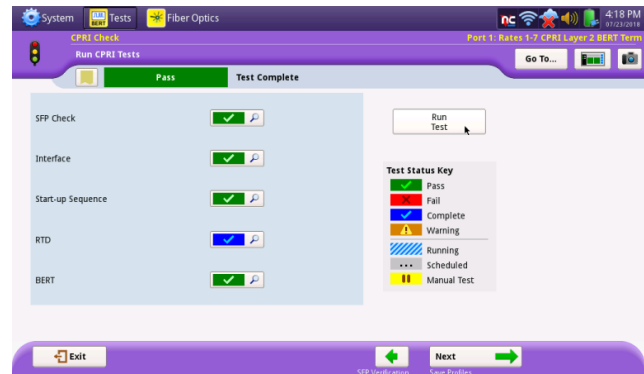


Figure 8: Run CPRI Tests screen