Quick Card

**T-BERD®/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:
    - C512GCPR for CPRI Rate 2 (1228.8M)
    - C524GCPR for CPRI Rate 3 (2457.6M)
    - C549GCPR for CPRI Rate 5 (4915.2M)
    - C598GCPR 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

**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.

**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 1: Equipment Requirements](image1)

![Figure 2: Inspect Before You Connect (IBYC)](image2)

![Figure 3: T-BERD/MTS 5800v2 Dual Port mainframe](image3)
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.

Configure Test:
1. Select "Hard Loop" for the Far-end Device.
2. Tap to continue.
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:
     - Line Rate 2 (1228.8 Mbps): 40 min.
     - Line Rate 3 (2457.6 Mbps): 20 min.
     - Line Rate 5 (4915.2 Mbps): 10 min.
     - Line Rate 7 (9830.0 Mbps): 5 min.
   - Set Pattern Mode to ANSI.
   - Set Pattern to 2^23-1 ANSI.
4. Tap , Skip Save Profiles, and to proceed to the Local SFP Verification screen.
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 Next to proceed to the Run CPRI Tests screen.
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, ✗.