# T-BERD®/MTS-5800 Network Tester
## CPRI Check, RRU Connectivity Testing

This quick card describes how to connect to a CPRI Remote Radio Unit (RRU) and configure a VIAVI T-BERD 5800v2 for basic CPRI Testing, without BBU Emulation (C5RRHA) or RF over CPRI (C5RFOCPRI) options.

**Equipment Requirements:**
- RRU with power
- T-BERD/MTS-5800v2 equipped with:
  - BERT software release V27.0 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)
- SFP or SFP+ optical transceiver that supports the CPRI rate for the interface under test
- Single mode jumper cable to connect the T-BERD/MTS to the interface under test
- Fiber optic inspection microscope (VIAVI P5000i or FiberChek Probe)
- Fiber optic cleaning supplies



*Figure 1: Equipment Requirements*

**Information Requirements:**
- CPRI Line Rate of the RRU

**Fiber Inspection Guidelines:**
- Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every fiber optic connection being (bulkhead connectors, patch cords, etc.)
- 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.
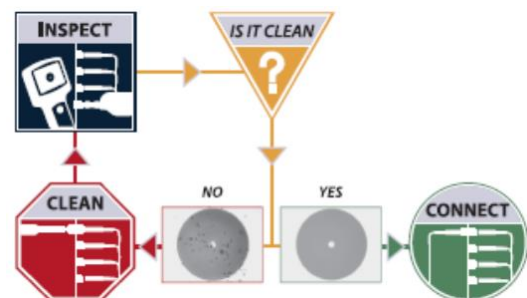- Repeat until it passes.



*Figure 2: Inspect Before You Connect (IBYC)*

**Connect to Fiber Under Test:**

1. Insert CPRI optics into the Port 1 slot on the top of the T-BERD/MTS 5800v2.
2. After inspecting the fiber end faces, connect the SFP/SFP+ to the fiber under test using an LC-LC jumper cable.
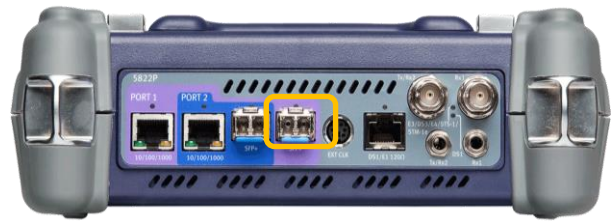

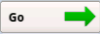*Figure 3: T-BERD/MTS 5800v2 Dual Port mainframe*

**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 [Go ➡] button to **Start a New Configuration**.


*Figure 4: CPRI Check Startup screen*
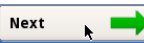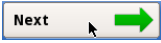
**Configure Test:**
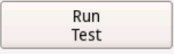
1. Tap the **Far-end Device** drop-down list and select the vendor of your RRU**.**
2. The **Local SFP Verification**, **Interface**, **Start-up Sequence**, and **RTD** tests will be selected and greyed-out.  If a 2nd column of test selections is displayed (see Figure 5) your T-BERD/MTS is optioned for BBU Emulation and/or RF over CPRI testing.  Uncheck all boxes to complete this quick card without using these options.

3. Tap [Next ➡], [Next ➡], [Skip Save Profiles ➡], and [Next ➡] to proceed to the **Local SFP Verification** screen using default settings.


*Figure 5: 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.

    - If any of the lights are red in color, the RRU may need to be reset or power may need to be cycled.
    - If the Frame sync is red, the SFP may not be in working order or it may not be fast enough for the Rate of CPRI selected.
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, [✓].
6.  Tap the [✓ 🔍] symbols to view detailed results. Tap [← Back] to return to the Tests screen.
7.  Press [Next →] twice to proceed to the **Report Info** screen.

**Save Report:**
1.  Enter Customer name, Technician ID, and other desired header information for the report.
2.  Tap [Next →] to proceed to the **Create Report** screen.
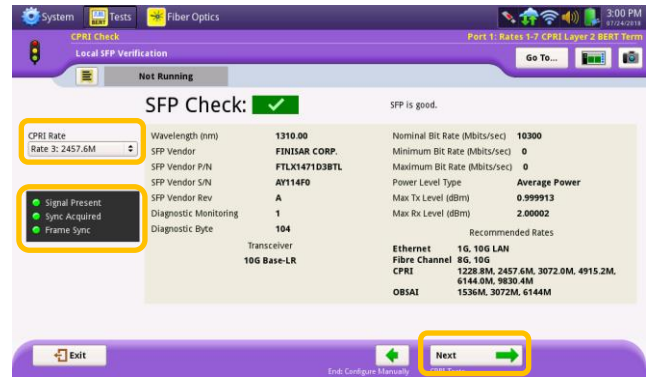3.  Enter a File Name and tap [Create Report].
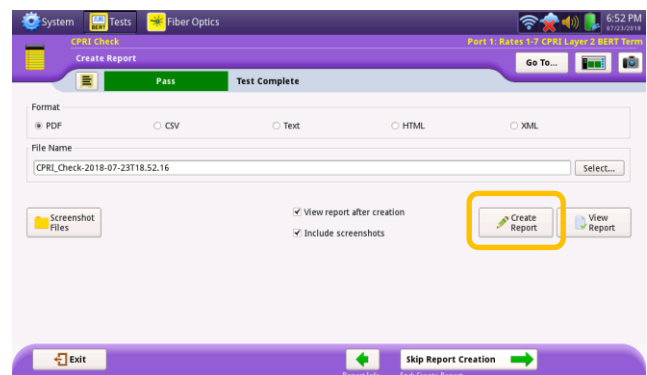4.  After viewing the report, tap [Exit].


*Figure 6:Local SFP Verification*


*Figure 7: Run CPRI Tests screen*


*Figure 8: Create Report*