Quick Card

T-BERD 5800 Network Tester
DS1 PPP Ping Testing

This quick card describes how to configure and run an DS1 PPP Ping Terminate Test to validate the provisioning and performance of T1 MPLS service.

Equipment Requirements:
- T-BERD 5800 equipped with the following:
  - BERT software release V27.0 or greater
  - Test options:
    - C5E1DS1: E1/DS1 Electrical option
    - C5DS1DS3HDLC: DS1/DS3 HDLC Analysis option
    - C5HDLCCAPTURE: DS1/DS3 HDLC Capture (recommended for packet capture and decode)
    - C5DUALPORT: Dual Port option (required on T-BERD 5800-100G only)
- One of the following T1 Cables to connect the T-BERD DS1 Port(s) to the line under test:
  - Two (2) Bantam to Bantam cables (CB-10615)
  - Dual Bantam to RJ-48C cable (CB-41645)
  - RJ-48C Patch cable (Straight-through or cross-over)

Figure 1: Equipment Requirements

The following information is required to complete the test:
- T1 Framing (ESF or D4) and Line Code (B8ZS or AMI)
- Payload Type (Bulk or Fractional)
- IP Mode (Static or Auto), Source IP Address, and Subnet Mask
- User Name and Password, if service uses Authentication
- IP Addresses for PPP Server and for IP host to Ping

Connect to Line Under Test:
- The T-BERD 5800v2 has both RJ-48C and bantam ports. You may use Bantam to Bantam, Dual Bantam to RJ-48C, RJ-48C straight through, or RJ-48C crossover cables to connect the T-BERD to the line under test.
- The T-BERD 5800-100G has an RJ-48C port. Dual Bantam to RJ-48C, RJ-48C straight through, or RJ-48C crossover cables may be used.
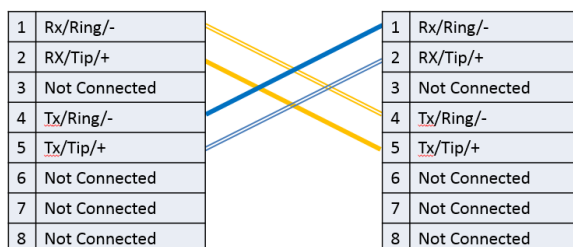
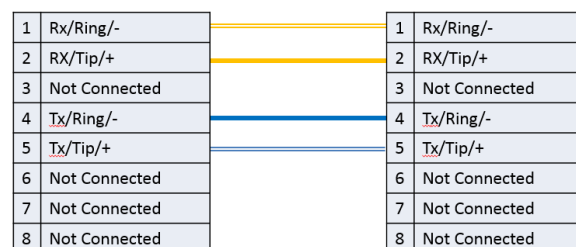| 1	Rx/Ring/-
2	RX/Tip/+
3	Not Connected
4	Tx/Ring/-
5	Tx/Tip/+
6	Not Connected
7	Not Connected
8	Not Connected

1	Rx/Ring/-
2	RX/Tip/+
3	Not Connected
4	Tx/Ring/-
5	Tx/Tip/+
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7	Not Connected
8	Not Connected

Figure 2: RJ-48C Crossover Cable

1	Rx/Ring/-
2	RX/Tip/+
3	Not Connected
4	Tx/Ring/-
5	Tx/Tip/+
6	Not Connected
7	Not Connected
8	Not Connected

1	Rx/Ring/-
2	RX/Tip/+
3	Not Connected
4	Tx/Ring/-
5	Tx/Tip/+
6	Not Connected
7	Not Connected
8	Not Connected

Figure 3: RJ-48C Straight Through Cable

Launch and Configure Test:

1. Press the **Test** icon [BERT Tests] at the top of the screen.

Figure 4: Launch Screen

2. Using the **Select Test** menu, **Quick Launch** menu, or **Job Manager**, launch the **DS1/DS3►DS1►DS1 PPP► Ping►Terminate** test.
   Note: DS1 tests must be run on Port 1 on the T-BERD 5800v2. DS1 tests must be run on Port 2 on the T-BERD 5800-100G.
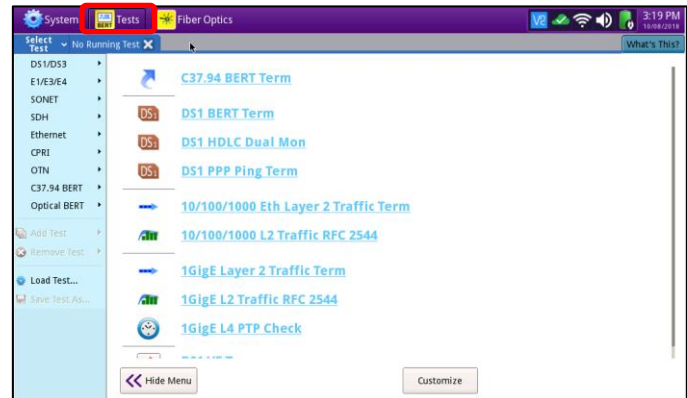
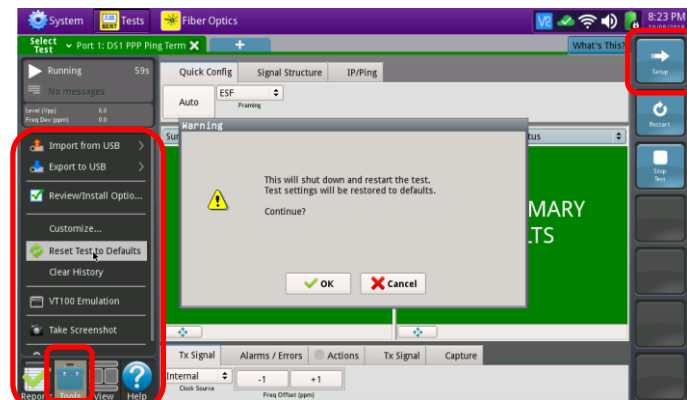3. In the **Tools Panel** [Tools] select [Reset Test to Defaults].

4. Press [OK] to continue.

Figure 5: Tools Panel

5. Press the **Setup** soft key, [Setup], on the top right side of the screen. Select the indicated folders and configure your test as follows. Leave all other values at default, unless specified in the work order.

Folder	Option	Value(s)
Interface	Rx Input	Term
	Line Code	B8ZS or AMI. If unknown, select "B8ZS"
	Clock Source	Internal
	LBO	0 dB
Framing	Framing	ESF or D4. If unknown, select "ESF"
Payload	Payload Type	Bulk or Fractional Rate. If unknown, select "Bulk"
PPP	PPP Mode	Client
	IP Mode	Auto or Static. If static IP Address unknown, select "Auto"
	Authentication	Check if service is authenticated with a User Name and Password.
	User Name	User Name
	Password	Password
IP	Local IP	Source IP Address
	Subnet Mask	Subnet Mask
	Remote IP	IP Address or PPP Server
	Destination Type	IP Address
	Destination IP	IP Address to Ping
	Ping Type	Multiple
	Pings	100
	Packet Size	1500

6. Press the **Results** Soft Key to view the **Test Results** screen.

7. Using the drop-down menus, select "**Ping/Stats**" for the right Results display.

8. Press the **Restart** soft key to reset results.

9. Verify the following:
   - **Signal Present** LED is green
   - **Frame Sync** LED is green

   If the specified LEDs are not green, check your **cables** (Tx and Rx may be reversed) and check **Setup** values (step 5 above). **Note:** The B8ZS LED will not be lit, regardless of the line code.
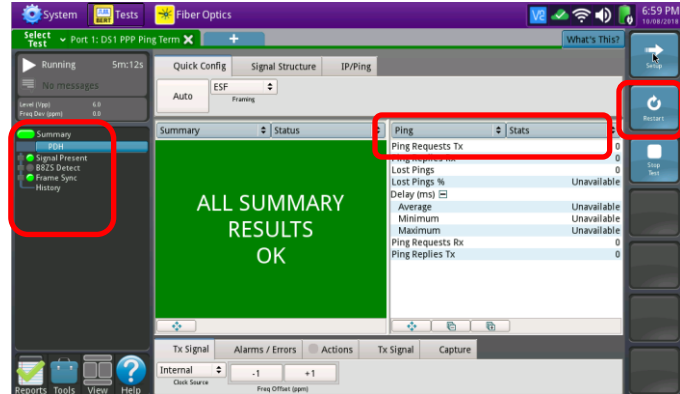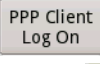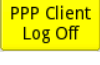

Figure 6: Test Results Screen

Ping Testing:

1. Select the **Action** tab in the **Actions panel,** and Press PPP Client Log On . The button will turn yellow and be relabeled PPP Client Log Off .

2. Press Ping . The button will turn yellow and be relabeled Pinging .

3. Verify the following:
   - The Left Result window displays "**ALL SUMMARY RESULTS OK**."
   - **Ping Requests Tx** and **Ping Replies Rx** are both incrementing in the Right Results window.

4. Allow the ping test to run for the desired duration. Verify that the Left Result window still displays "**ALL SUMMARY RESULTS OK**" and that **Lost Pings** = **0**.
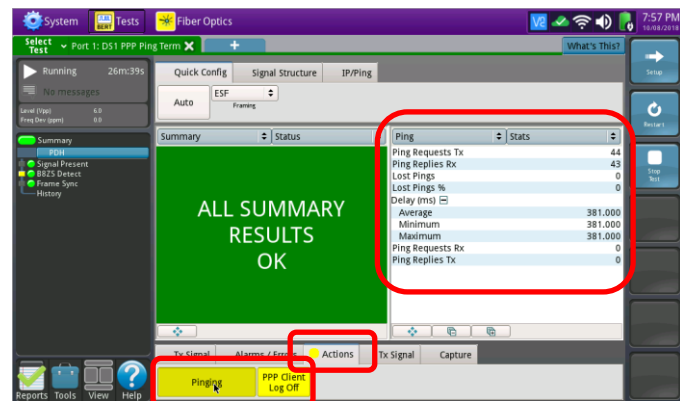

Figure 7: Actions Panel

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