

# HST-3000 Ethernet Layer 3 Traffic Testing



The following procedure outlines how to configure the HST-3000 utilizing the Electrical (RJ-45) Ethernet Interface to conduct a bit error rate test. Please read entire procedure **BEFORE** starting.

Menu selections are made from the HST-3000 front panel either by using the keypad to select the option number **OR** by using the arrow keys to scroll to the desired selection and pressing the OK key.

Please note that this same procedure may be used for Optical (MMF, SMF) Ethernet Interface, substituting appropriate Fiber Optic Connectors and selecting the **ETH OPTIC** soft key in Part 1, Step 2.

HST-3000 Front Panel:

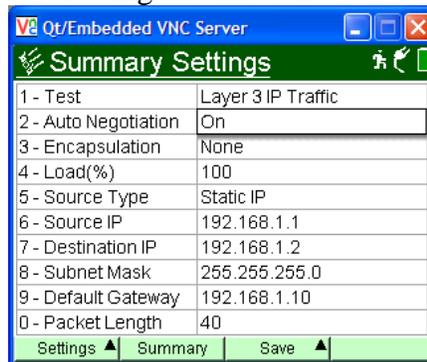


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**Part 1: Configuring the HST-3000**


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- | Step | Action    | Details   |
|------|-----------|---|
| 1.   | Power     | Press the green Power Key to turn on the HST.   |
| 2.   | ETH ELEC  | Press the <b>ETH ELEC</b> Soft key to test 10/100/1000 Mbps Ethernet via the SIM RJ-45 interface.   |
| 3.   | Terminate | Press the <b>1</b> key on the Keypad to select <b>Terminate</b> .   |
| 4.   | Test      | Press the <b>2</b> key on the Keypad to select <b>Layer 3 IP Traffic</b> .  |
| 5.   | Configure | Press the <b>Configure</b> Navigation key to configure test settings.<br>Press keys 0 through 9 on the Keypad, making appropriate selections for Autonegotiation, Encapsulation, Load, and IP Addressing Information: |



6. Advance settings may be configured by pressing the **Settings** Soft key:



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**Part 2: Connecting to the Circuit**


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<i>Step</i>	<i>Action</i>	<i>Details</i>
1.	Home	Press the <b>HOME</b> Navigation Key to return to the Results Screen.
2.	Connect the HST-3000 to the line under test using the Electrical RJ-45 connector labels R/T 1 on the left side of the SIM.	

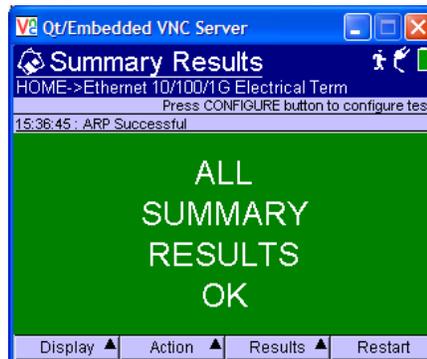



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**Part 3: Verifying Connectivity**

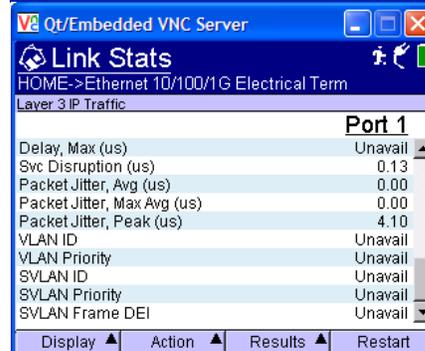
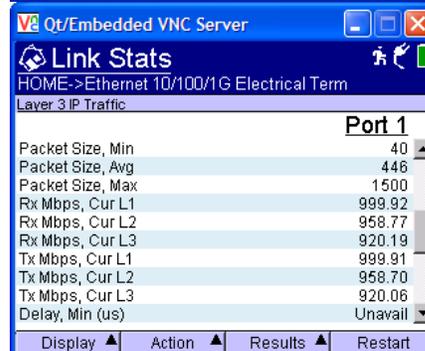
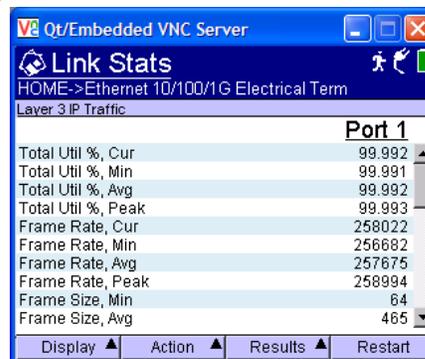
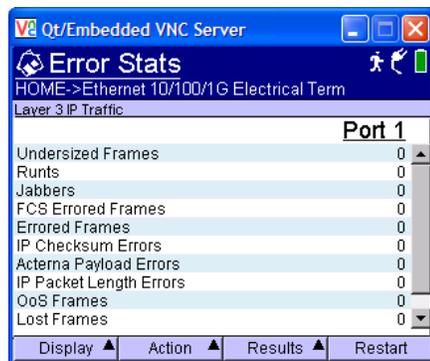
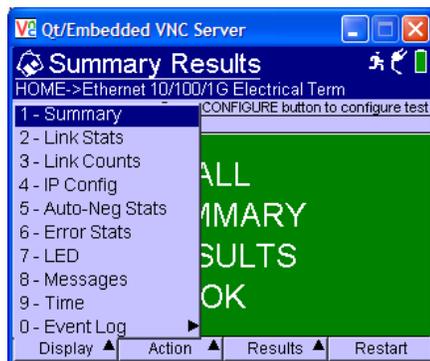

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<i>Step</i>	<i>Action</i>	<i>Details</i>
1.	Sync LED	A <b>green</b> Sync LED indicates the Ethernet link is active
2.	Restart	Press the Restart soft key to reset counter and alarms. <b>ALL SUMMARY RESULTS OK</b> should be displayed. “ARP Successful” should also be displayed.

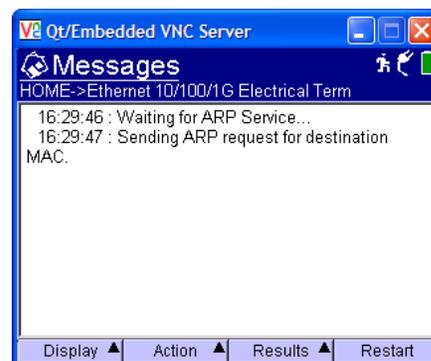
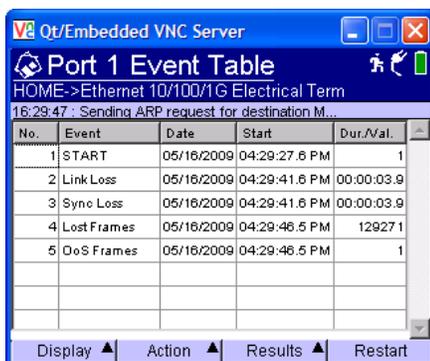
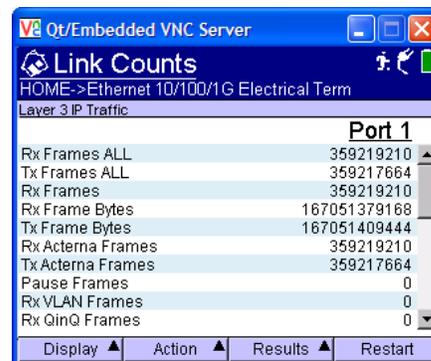
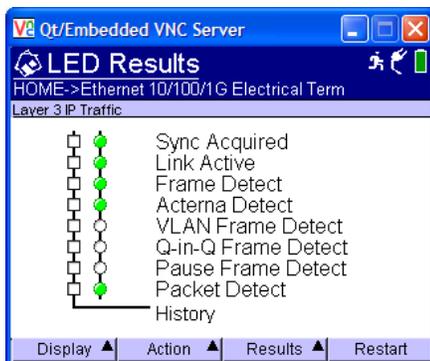
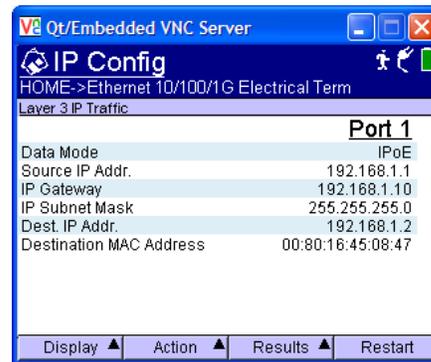
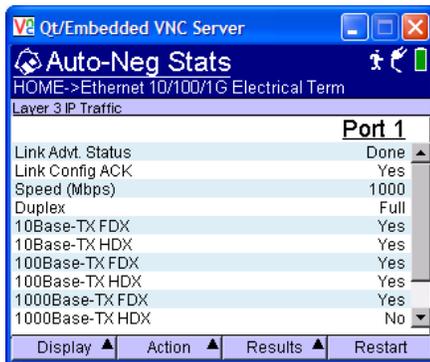


### Part 4: Performing the Test

Step	Action	Details
1.	Start Traffic	Press the <b>Action</b> soft key and select <b>Start Traffic</b> . Verify that Traffic is also started at far end test set.
2.	Data LED	A <b>green</b> Data LED indicates traffic is being received
3.	Insert Error	Press the <b>Action</b> soft key again, and then select <b>3-Insert Single FCS Error</b> . Verify that the Error LED turns <b>red</b> and “ <b>Lost Frame 1</b> ” is displayed on the far end test set.
4.	Restart	Press the Restart soft key to reset counter and alarms. <b>ALL SUMMARY RESULTS OK</b> should be displayed.
5.	Test	Allow HST-3000 to perform test for desired amount of time.
6.	Display	Press the <b>Display</b> soft key to select Results views. Verify that test results in <b>Link Stats</b> and <b>Error Stats</b> meet requirements for the line under test.



7. Display Press the **Display** soft key to select additional Results views, if required to troubleshoot the line under test:



8. Save Press the **Results** soft key and select **Save** to save test results.
9. Action Press the **Action** soft key and select **1-Stop Traffic**.