ADSL Testing Using the JDSU HST 3000 or the 3M 965-DSP

Document Type*: Tech Tips*

Scenario*: Testing of OSP pairs for ADSL compatibility*

Description:
This *Tech Tip brief* describes how to use both the JDSU HST 3000 and the 3M 965-DSP test units to run a full ADSL test on OSP pairs.

There are three parts to this *Tech Tip*:
- **General Testing Considerations**
- **Setting up a JDSU HST 3000 for full ADSL testing**
- **Setting up a 3M 965-DSP for full ADSL testing**

I. General Testing Considerations

As a general rule, OSP pairs should be tested and, where needed, repaired to meet ADSL pair specifications. This is best done by two people familiar with the OSP cable and equipped with an OSP test unit that supports the ADSL test suite and an appropriate Far End Device (FED) or a second OSP test unit that can act as a FED.

II. JDSU HST 3000 "Acterna" instructions

These instructions are for the CU-ADSL2 TX SIM module. They should work with any JDSU SIM that is designed for ADSL2, VDSL2, or Wide Band testing.
1) Connect the Tip, Ring, and Ground leads appropriately for the pair to be tested. This must be done at both ends of the circuit.
2) Power on the HST-3000 with a suitable SIM module mounted.
3) Push the "Autotest" button.
4) Push the button that appears under the "Copper" tab at the bottom of the screen.
5) Either push the number "4" key on the keypad, or scroll to option "4" on the screen and click "Okay".   (You should be selecting the option that specifies TDM testing with a FED).
6) Select ADSL_DEFAULT test
7) Using the "configuration" key, select the type of FED you will be using. If you do not have a JDSU UltraFED or a 3M FED (called "Dynatel" on the JDSU screen), then tell the unit you will be using a second HST 3000 as a FED.
8) You can now begin the test.

III. 3M 965-DSP Instructions
1) Connect the Tip, Ring, and Ground leads appropriately for the pair to be tested. This must be done at both ends of the circuit (the 965 at one end, the FED at the other).
2) Power on the 965-DSP.
3) Select "Auto".
4) Select "FED Setup".

5) Select your FED type (generally either a FED or FED II).
6) Scroll the Test Type to "Wideband Test" BUT DO NOT SELECT IT! That would start the test immediately, and there is more set up yet!
7) Select "WB Setup".
8) Using the ⇌ key, move between the different setup categories, selecting the appropriate settings for your cable, i.e., 24AWG, Jelly-Filled, and so on.
9) At the "Test Choice" box, choose "Full".
10) At the "Service" box, scroll down until you find "ADSL".
11) At the "Lng Bal" box, choose "No Term".
12) Press "Enter" to accept the settings. This returns you to the Autotest screen.
13) Scroll to the "Wideband Test". You should see the showing "Full", "ADSL", and the cable information you selected.
14) Press "Enter" to begin the test.

For more information on ADSL test and tagging, please see our documents "Test and Tag of Copper Bonding Facilities", "Aktino Pair Test (Blank) (UPDATE OCT – 2010)", and "The importance of Longitudinal Balance to DMT signals" all which are available on the Positron Partners Support Portal (portal.positronaccess.com).