

Application Note MPLT-1
Field Testing of Direct Attach Modified Permanent Links
Utilizing Fluke DTX-1800



Due to growing demand and emergence of high performance field installable plugs, industry standards such as TIA-862-A, Building Automation Systems Cabling Standard and ANSI/BICSI-005-2013, Electronic Safety and Security (ESS) System Design and Implementation Best Practices now recognize the direct attach method of termination.

Optical Cable Corporation (OCC) has developed well-defined procedures for testing direct attach configurations using a modified permanent link test setup. OCC's Extended Performance 25 Year Link Limited Warranty is also applicable to direct attach links utilizing OCC products that are certified in a modified permanent link configuration using the appropriate OCC field plug test adapter for the performance category of the link under test.

Direct Attach Test Configuration:

Single connector modified permanent link utilizing an OCC field plug test adapter and a Fluke Networks DTX-1800 tester. See figure 1.

Instructions:

Step 1: Connect permanent link adapter to Fluke DTX-1800 main unit

Step 2: Connect channel adapter to DTX-1800 smart remote.

Step 3: Connect OCC field plug test adapter (plug end) to channel adapter on the Smart Remote.

Note: For maximum accuracy, It is important to use the appropriate field plug test adapter for the performance category of the link under test [Cat5e: FPTAC5EKS (yellow), Cat6: FPTAC6KS (blue), Cat6A: FPTAC6AKS (white).] See figure 2.

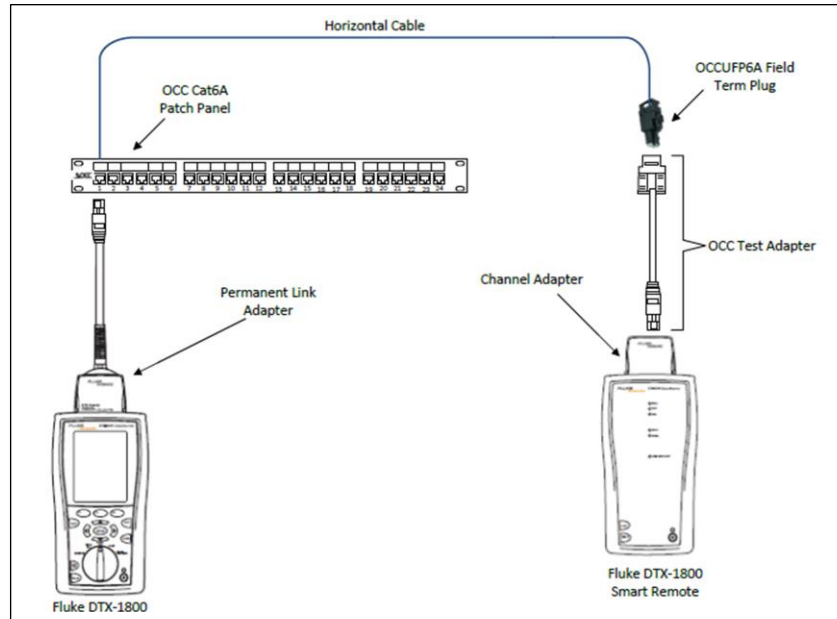


Figure 1: Modified Permanent Link with OCC Field Plug Test Adapter

Step 4: Connect the test equipment to the installed cabling as shown in Figure 1.

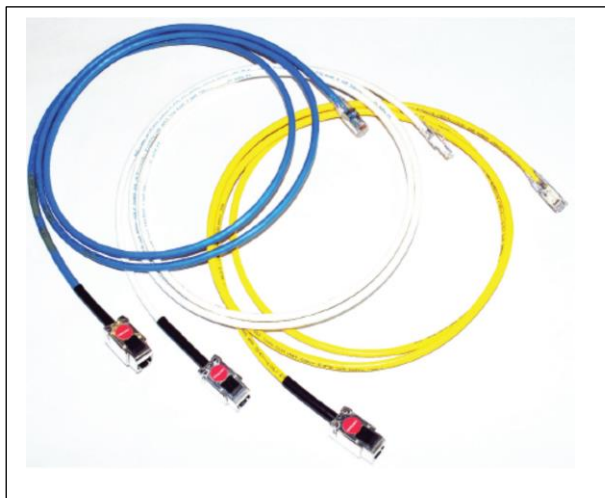


Figure 2: OCC Field Plug Test Adapters

Step 5: Configure Fluke DTX-1800 Settings

- Turn the rotary switch to **SETUP**, then select **Twisted Pair**. Set the following on the **Twisted Pair** tab:
 - **Cable Type:** Select a list of cable types; then select the cable type to be tested.
 - **Test Limit:** Select the Permanent Link test limit for the performance category of the link under test.
- Turn the rotary switch to **AUTOTEST**
- Press: **Test**. The following message appears: "Cat X/Class X channel is not compatible with the selected test limit: TIA Cat X Perm Link. Continue?"
- Press: **Yes**
- Save results