

**Application Note MPLT-2**  
**Field Testing of Direct Attach Modified Permanent Links**  
**Utilizing Fluke DSX-5000**



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 DSX-5000 tester. See figure 1.

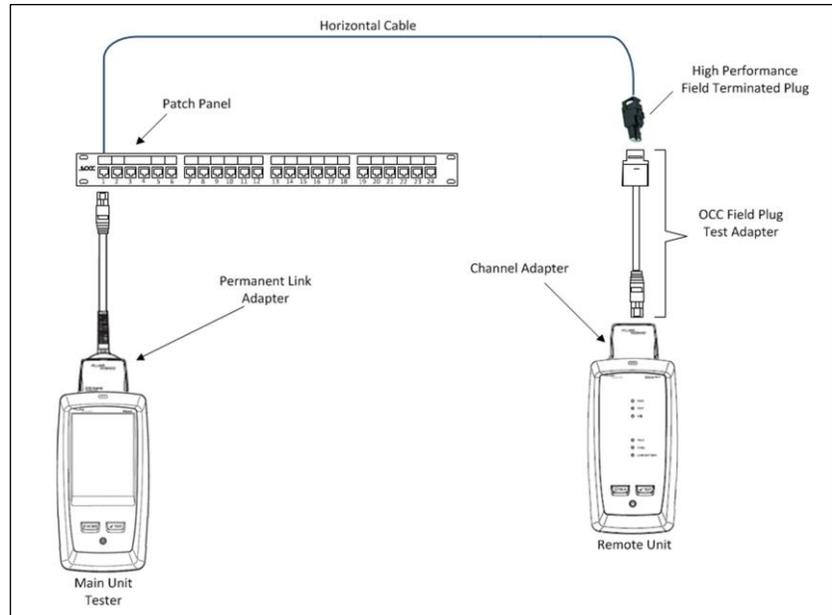
**Instructions:**

**Step 1:** Connect permanent link adapter to Fluke DSX-5000 main unit

**Step 2:** Connect channel adapter to DSX-5000 remote.

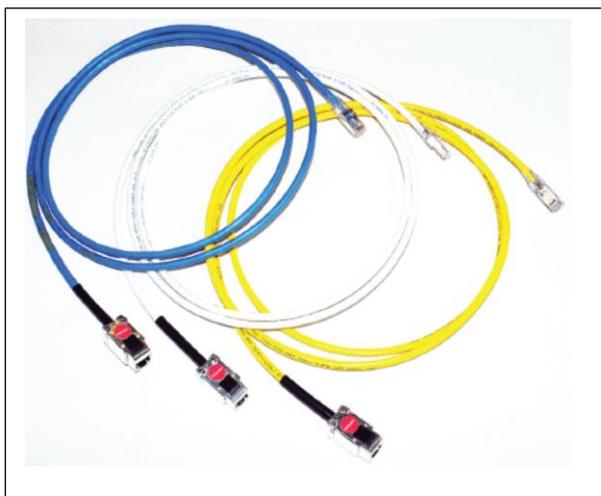
**Step 3:** Connect OCC field plug test adapter (plug end) to channel adapter on the Smart Remote.

**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 DSX-5000 Settings

- Tap the test limit from the **HOME SCREEN > EDIT > Test Limit > MORE**
- Slide down to Application and tap to see:
- Tap the **Mod 1-Conn. Perm. Link** for the performance category of the link under test.
- Tap **SAVE > USE SELECTED.**
- Tap **TEST**
- Save results