APPLICATION NOTE

Field Testing of Direct Attach Modified Permanent Links

Due to the 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 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. In addition, field tester manufacturers such as Fluke Networks have incorporated direct attach test capabilities into their latest testers (ex. Fluke DSX-5000).

Example Test Configuration:
Cat6A UTP (single connector) modified permanent link utilizing and OCC field plug test adapter (OCC P/N: FPTAC6AKS) and a Fluke Networks DTX-1800 tester. See Figure 1.

Connections:
Step 1:   Connect the permanent link adapter to the Fluke DTX-1800 main unit.
Step 2:   Connect the channel adapter to the Fluke DTX 1800 smart remote.
Step 3:   Connect the OCC Field Plug Test Adapter (plug end) to the channel adapter. Note: For maximum accuracy, it is important to use the appropriate field plug test adapter for the performance category of the link under test (Cat6A=white; Cat6=blue; Cat5e=yellow), see Figure 2.
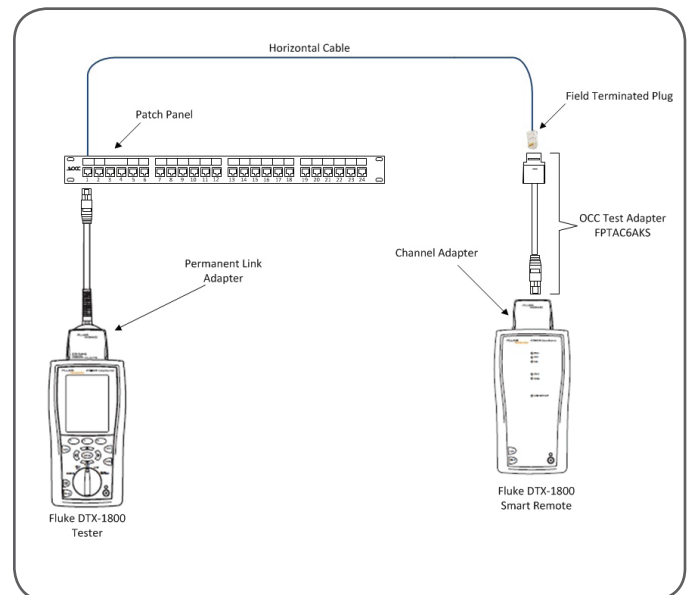Step 4:   Connect the permanent link adapter plug end to the patch panel port.

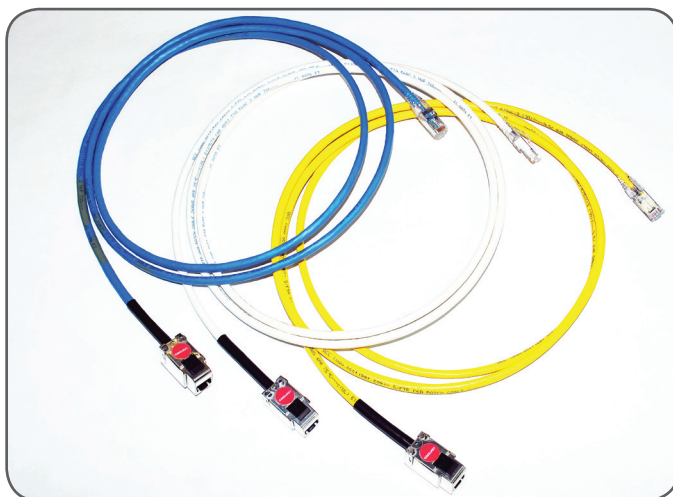Figure 1: Cat6A Modified Permanent Link with OCC Field Plug Test Adapter

Fluke DTX-1800 Settings:
Setup » Twisted Pair » Test Limit: TIA Cat6A Permanent Link
Cable Type » Cat6A UTP
Auto Test » Test » Message: "Cat6A/Class EA channel is not compatible with the slected test limit: TIA Cat6A Perm Link. Continue?
Press: Yes

Figure 2: OCC Field Plug Test Adapters

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