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Telecommunications
Engineers**

**ENGINEERING COMMITTEE
Interface Practices Subcommittee**

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**Test Method for Axial Load Temperature
Cycling of Drop Cable/Connector Interface**

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1.0 SCOPE

- 1.1. This test procedure is intended to evaluate the connection between the connector and the coaxial drop cable when it is subjected to a continuously varying environmental cycle. The cable/connector assembly has an axial load of 15 pounds applied to them during the environmental cycling.

2.0 EQUIPMENT

- 2.2. An environmental chamber capable of providing continuously varying cycles from -40°F to $+140^{\circ}\text{F}$ (-40°C to $+60^{\circ}\text{C}$). Each cycle shall consist of 2 hours at 60°C and 2 hours -40°C ($+140^{\circ}\text{F}$ and -40°F). There is a 1 hour transition time between the high and the low temperatures.
- 2.3. A test stand to support the samples under test. See Figure 1.
- 2.4. Fifteen (15) pound (6.8 kilogram) $\pm 2\%$ weights.
- 2.5. F-81 Ports.

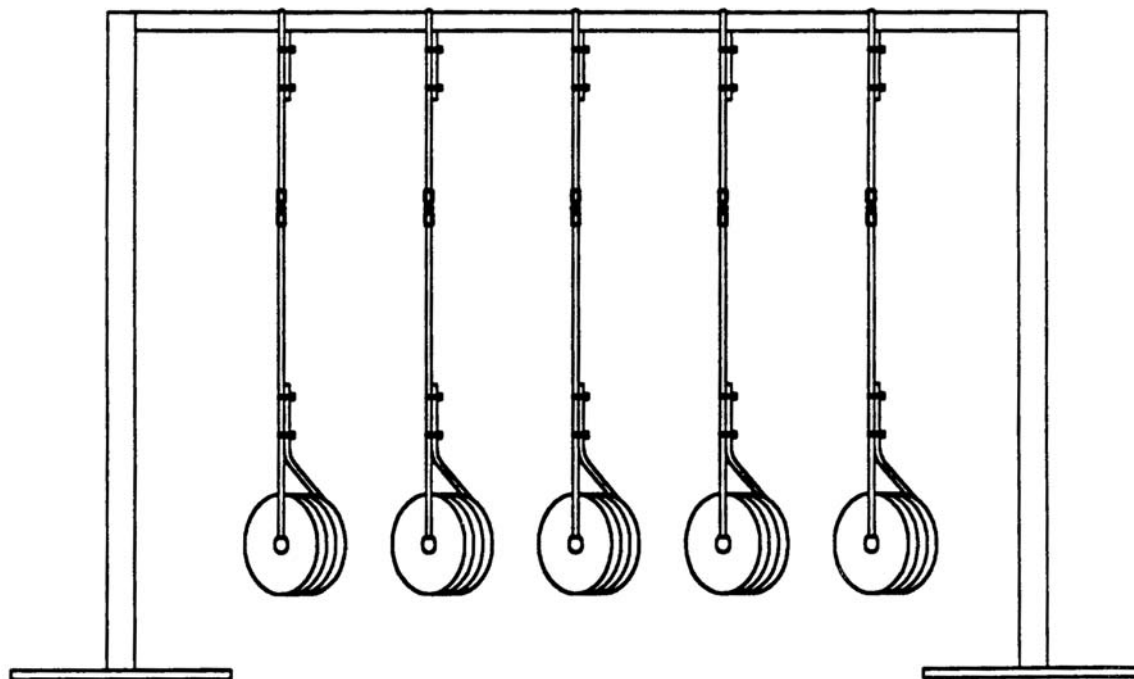


Figure 1 – Typical Support Fixture

3.0 TEST SAMPLES

- 3.1 Prepare 10 samples of a length convenient for the test facility being utilized.
- 3.2 One end of each cable sample should be prepared in accordance with the connector manufacturer's specification. This should be accomplished with the use of the proper cable preparation tool(s). Do not use a knife to prepare the cable samples.
- 3.3 Install the connectors on the prepared cable per the connector manufacturer's installation instructions.

4.0 PROCEDURE

- 4.1 Tighten the installed connectors onto both sides of an F-81 port to the connector manufacturer's recommended torque.
- 4.2 Loop the free end of one of the cables twice through the hole in the center of the weights and secure the free end with two tie wraps.
- 4.3 Loop the other free end of the sample around the horizontal bar of the test stand twice and secure the free end with two tie wraps so that the weights are above the floor. Use care not to jerk or lift the sample in a rapid manner as this rapid movement can result in interface forces that are several times the 15 pound load.
- 4.4 The duration of the test is four (4) days.

5.0 INSPECTION

- 5.1 At the conclusion of the test, inspect the samples for any failure, which is the separation of the connector from the cable.