

AT&T TESTING REQUIREMENT CHANGE NOTIFICATION - ATT-TP-76900-001

TO: ALL AT&T INSTALLATION SUPPLIERS

Date: 06-08-06

EFFECTIVE DATE: 5 days from posted date

Submitter's Name: Mike Yeilding

TP: TP76900 Subject: Fiber Interface Cabling Action: _ Add X Modification _ Delete

**Section: T Section Title: TRANSMISSION EQUIPMENT
Section: 2 Section Title: Test Requirements
Subsection: 2.7 Subsection Title: Fiber Interface Cabling**

Prior to Change:

- 2.7.2 If one end of the fiber jumper is terminated on the optics card, then the light/power from that card can shall be read with a power meter at the other end of the fiber jumper. The manufacturer of that equipment will specify what the light/power level should be. This test will check the card and the cable.
- 2.7.3 If the fiber jumper is not terminated on the optics card, then a light/power source is required to send a pre-determined light/power level at one end of the fiber jumper. A power meter is required to read that light/power level on the other end of that fiber jumper.

Post Change:

- 2.7.2 The following procedures shall be used to test, measure and record loss on newly installed cables, jumpers and patch cords. This shall apply to factory formed as well as field formed connectorized cables, jumpers and patch cords. The light source for this testing shall be 1550nm source. A light source of any other frequency will result in inaccurate readings. If the application for the tested cable, jumper or patchcord is either 1310nm or 1550nm, the 1550 source shall be used. The power meter shall be set at 1550nm.

Procedure A) This procedure shall be used when:

The connector on the light source is any type and one end of the test cable, jumper or patch cord has the same connector.

The connector on the power meter is an SC connector.

Note: Refer to Sketch – 1 and Sketch – 2 in Figure T-2.

1. Connect the Test Jumper between the light source and optical power meter.
2. Record the optical power (P1) on the Optical Data Sheet.
3. Disconnect the Test Jumper from the optical power meter.
4. Connect one end of the newly constructed jumper to the end of the Test Jumper using an adapter.
5. Connect the other end of the newly constructed jumper to the optical power meter.
6. Record the optical power (P2) on the Optical Data Sheet.
7. Subtract P1 from P2 and record the result (loss) on the Optical Data Sheet.

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8. If jumper loss reading is greater than 0.80dB, the installation supplier shall follow cleaning procedures in ATT-TP76461 and retest.

a. If the loss is greater than 0.80dB, the jumper is not acceptable and shall be replaced.

b. If testing is done between two FOT panels, 0.75 dB is added to the maximum allowable loss the 0.75dB takes into account the loss in the (2) bulk head connectors. In this case the loss should be less than 1.55 dB.

Reference ANSI/TIA/EIA 568-B.3 -Optical Fiber Cabling Components Standards

The maximum loss allowed on a fiber cable (inside only) is calculated as follows :

0.75 dB (2) Connectors (Mated Pair) + 1.0 dB/Km of fiber cable + 0.3 dB per fusion or mechanical splice

9. A copy of the Optical Data Sheet shall be placed in the yellow wallet.

Procedure B) This procedure shall be used when:

The connector on the light source is not an SC connector.

The connector on the power meter is not an SC connector.

Note: Refer to Sketch – 3 and Sketch – 4 in Figure T-3.

1. Connect one Test Jumper to the light source.

2. Connect one Test Jumper to the optical power meter.

3. Connect two Test Jumpers together with an adapter.

4. Record the optical power (P1) on the Optical Data Sheet.

5. Connect one end of the newly constructed jumper between the two test jumpers with adapters.

6. Record the optical power (P2) on the Optical Data Sheet.

7. Subtract P1 from P2 and record the result (loss) on the Optical Data Sheet.

8. If jumper loss reading is greater than 0.80dB, the installation supplier shall follow cleaning procedures in ATT-TP76461 and retest.

a. If the loss is greater than 0.80dB, the jumper is not acceptable and shall be replaced.

b. If testing is done between two FOT panels, 0.75 dB is added to the maximum allowable loss the 0.75dB takes into account the loss in the (2) bulk head connectors. In this case the loss should be less than 1.55 dB.

Reference ANSI/TIA/EIA 568-B.3 -Optical Fiber Cabling Components Standards

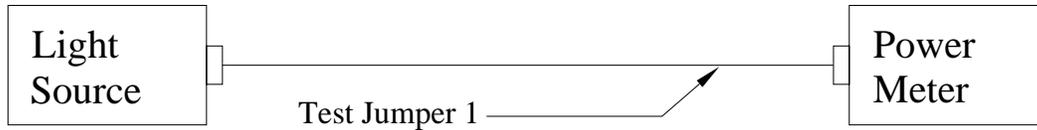
The maximum loss allowed on a fiber cable (inside only) is calculated as follows :

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0.75 dB (2) Connectors (Mated Pair) + 1.0 dB/Km of fiber cable + 0.3 dB per fusion or mechanical splice

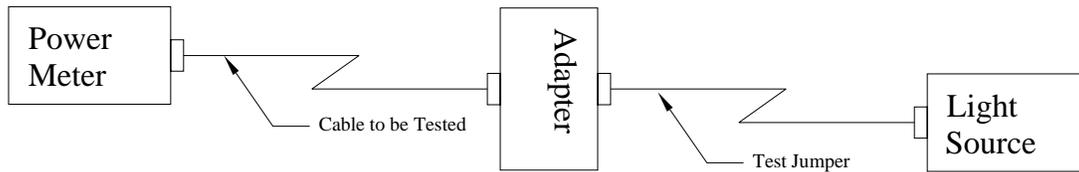
9. A copy of the Optical Data Sheet shall be placed in the yellow wallet.

FIGURE T-2 (new drawings for Procedure A)



Sketch - 1

P1 = Power Measurement of the Test Jumper(s).

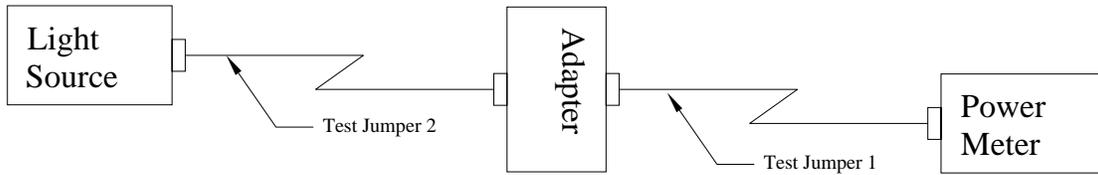


Sketch - 2

P2 = Power Measurement of the Test Jumper(s) and the Newly constructed Fiber Jumper.

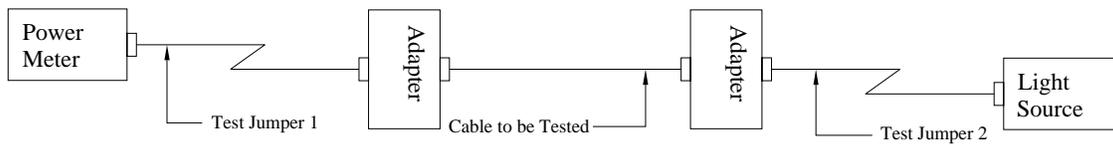
Loss P2 Less P1 - Losses Greater Than 0.80dB are not Acceptable (Assumes a 50m Cable).

FIGURE T-3 (new drawings for Procedure B)



Sketch - 3

P1 = Power Measurement of the Test Jumper(s).



Sketch - 4

P2 = Power Measurement of the Test Jumper(s) and the Newly constructed Fiber Jumper.
Loss P2 Less P1 - Losses Greater Than 0.80dB are not Acceptable (Assumes a 50m Cable).

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Questions relative to this TRCN should be addressed to Laurie Gustin at 310-640-4220

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