

INVENTION DISCLOSURE

1. **Invention Title.**

DOCSIS Timing Interface (DTI) Test Dongle

2. **Invention Summary.**

This device allows a user to connect an oscilloscope to an M-CMTS core device without using scope probes.

3. **Invention Description.**

- a. **Describe the invention in detail and/or attach a description, drawing(s) and/or diagram(s), if available. Please include flow charts for descriptions of software processes, and block diagrams for descriptions of hardware systems. Include the description/attachments in electronic form if possible.**

In order to verify an M-CMTS cores compliance with the DOCSIS Timing Interface (DTI) Specification, a test technician must connect an oscilloscope to the 7 pin S-ata cable provided by the vendor. The DTI test dongle is a 7 Pin serial ATA cable with the appropriate pins connected to an output BNC port that can in turn be connected to an oscilloscope via a 50Ohm cable.

A drawing of the prototype has been included.

- b. **Why was the invention developed? What problem(s) does the invention solve? How is it better?**

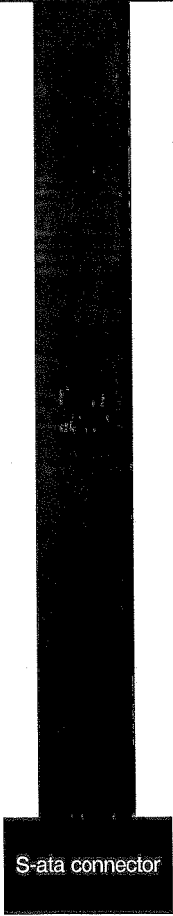
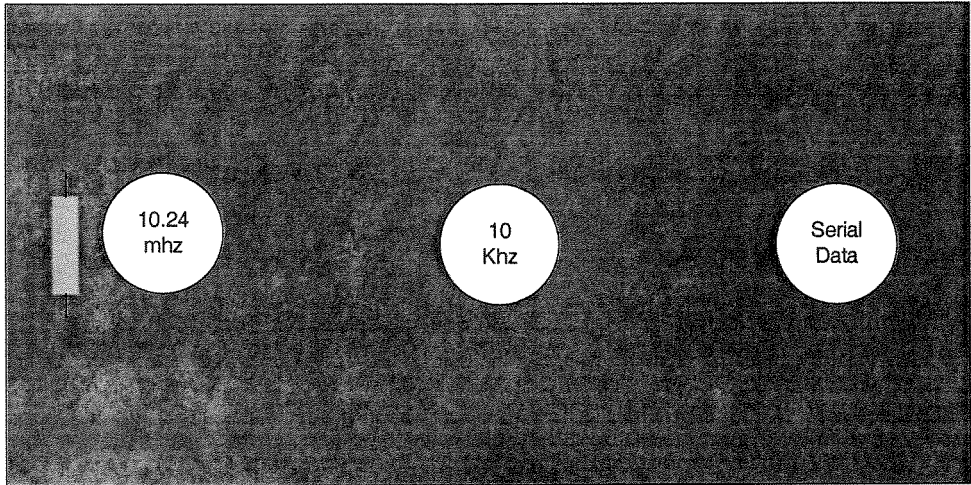
This device was developed in order to eliminate the use of scope probes during DTI testing and thereby reduce the amount of noise and risk of short circuits. The DTI test dongle also provides a labeled interface for the user to connect to and eliminates the need to cut, identify and connect to each pin in the S-ATA cable before use.

- c. **Briefly outline the potential commercial value and customers of the invention.**

This device would be of value to technical staff of any company that needed to verify M-CMTS core compliance with the DTI spec.

4. **How is your invention different from existing products, processes, systems? Please list the closest publication(s), product(s), method(s), patent(s), etc. to your invention. For each item, how is your invention different?**

None known. I do not know of a device that provides this specific interface.



S-ata connector