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**Home Digital Network Interface Specification
with Copy Protection**

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1 INTRODUCTION

The need for interfaces between cable set top boxes and digital television (DTV) receivers is one element of a general movement to interconnect multiple audio/visual (A/V) devices on a common bus or network. The IEEE 1394 interface has emerged as the preferred tool to accomplish this goal. This specification contains requirements and options for an IEEE 1394 digital interface between a cable TV set top box (called a Host Device in this standard because it “hosts” a removable security module), and a DTV receiver.

IEEE 1394, which covers the physical interface, has been extended by CEA-775, CEA-931 and CEA-799 which cover the command language, remote control commands, and on-screen graphics display respectively. This standard extends these to cover the needs of cable set-top boxes. In addition, the Digital Transmission Content Protection specification governs copy protection of digital content on this interface.

A schematic of the typical architecture expected in the implementation of this specification is shown in Figure 1 below.

The functional partitioning defined in this standard locates the MPEG signal processing into the DTV receiver while service access and content descrambling occurs in the Host device.

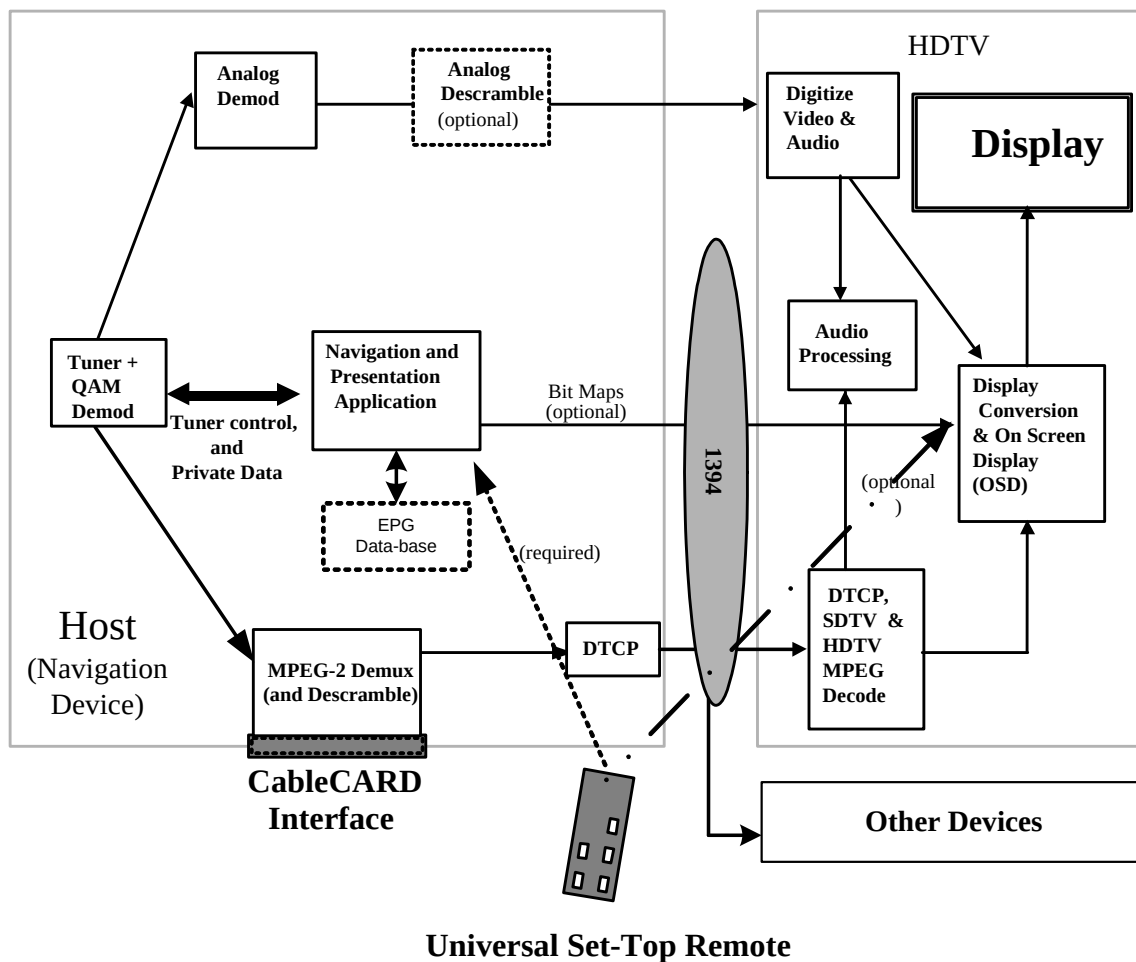


Figure 1. Interface Between a Host Device and a DTV Receiver

To be compatible with Host Devices that comply with this standard, a DTV receiver shall support one or more analog audio/video inputs, and allow an external device such as a set-top box the ability to select either a digital or an analog audio/video source for display.

An external device may optionally supply user interface screens in analog video format instead of bitmap OSD.