

Importance of a Fully Functional IEEE 1394 Interface in Cable Operator-Provided High-Definition Set-Top Boxes

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Section 629 of the Act directs the Commission to “adopt regulations to assure the commercial availability, to consumers of multichannel video programming systems, of ... interactive communications equipment, and other equipment ... from manufacturers, retailers and other vendors not affiliated with any multichannel video programming distributor.” Thus, pursuant to Section 629, the FCC must ensure that consumers can buy their own consumer electronic devices and hook them up to their multichannel video programming distributor. Consumers should not be dependent on MVPD-supplied CE devices.

Pursuant to Section 629, the FCC ordered in 2003 that “[e]ffective July 1, 2005, [cable operators shall] include both a DVI or HDMI interface and an IEEE 1394 interface on all high-definition set-top boxes acquired by a cable operator for distribution to customers.” Section 76.640(b)(4)(ii), adopted in *Cable Plug and Play, Second Report and Order (2003)*.

The 1394 Trade Association (1394 TA) is focused on the ability of MVPD consumers to record and playback video programming on retail-purchased digital video recording (DVR) devices. Absent an FCC mandate, MVPD providers have little, or no incentive to provide a standards-based recording interface, or any recording interface at all. Without such a mandate, consumers would be dependent on MVPD-provided digital recording devices.

In this document, 1394 TA will focus on cable providers (MSOs), since the current IEEE 1394 interface mandate set forth in Section 76.640(b)(4)(ii) applies specifically to MSOs.

At present, MSO-provided high-definition digital set-top boxes (STBs) do not fully enable IEEE 1394 interface capabilities, and as a result consumers cannot access program scheduling functions from a retail-purchased recording device. In addition, MSO-provided STBs do not integrate these functions with the MSO-provided graphical user interface (GUI), which would ensure a seamless user experience.

In the real world, here is what happens. A consumer purchases a DVR at retail. The consumer connects the IEEE 1394 port in the HD STB to the 1394 port in the DVR. However, the consumer is unable to access any of the control functions for the IEEE 1394 port from the STB. The STB is configured such that the GUI provided via the HDMI port to the TV is not also provided via the 1394 port to the DVR. As a result, the consumer cannot instruct the DVR as to what to record and when it should record. Although the software for the GUI resides in the STB, that software is not made accessible to the IEEE 1394 port.

Representatives of 1394 TA were only able to record from the 1394 port on an MSO-provided STB to a DVR by doing the following: (i) connect one 1394 port on the STB to the 1394 port on the DVR; (ii) connect second 1394 port on the STB to the 1394 port on a TV; (iii) turn on the TV and select a channel; (iv) use TV or DVR remote to instruct DVR to record what was being viewed on the TV screen. If the TV was turned off, it was not possible to record to the DVR. If the channel on the TV was changed, the new channel would be recorded on the DVR. It was not possible to set the DVR in advance, to record on the DVR if the TV was turned off, or to record a different channel on the DVR than the channel being viewed on the screen. Obviously, this is not consumer-friendly.

Even if the consumer were able to record content to their DVR, it would be impossible for such consumer to play back that content via their STB. At present, the FCC does not specifically require, and MSO-provided STBs do not allow, audio/video content to be received by (input into) the STB via the 1394 port.

In light of the above, 1394 TA urges the FCC to maintain the requirement that MSO-provided high-definition STBs include an IEEE 1394 interface for uni-directional digital cable services and clarify that the mandate applies to bi-directional (interactive) digital cable services. Further, 1394 TA urges the FCC to adopt appropriate regulations, which clearly define what a “functional” IEEE 1394 interface must provide.

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