



December 9, 2009

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, D.C. 20554

Re: Opposition to Intel Corporation's Waiver Request
CS Docket No. 97-80, CSR-8229-Z

Dear Ms. Dortch:

The 1394 Trade Association (the "1394 TA") opposes the request by Intel Corporation ("Intel") for a waiver of Section 76.640(b)(4) of the Commission's rules for cable set-top boxes using Intel's system on a chip processor.¹ Intel's waiver request should be denied because: (1) Ethernet does not offer any advantage over IEEE 1394 ("1394") in carrying IP; (2) 1394 is great for home networking; (3) 1394 is widely deployed and accepted by consumers and is being continually improved through the efforts of the 1394 TA and its members; and (4) Intel's waiver request is too broad.

1. Ethernet does not offer any advantage over IEEE 1394.

Intel's request confuses Ethernet with IP. Intel requests a waiver for "cable STBs that incorporate a system-on-a-chip processor such as the CE3100 and CE4100, which support digital output using IP." Intel's waiver request argues that "IP technology . . . will reduce consumer costs and proliferate home networking and recording using the broad range of readily-available IP-based consumer electronics and information technology products."

Intel's waiver request is surprising because *IEEE 1394 already provides complete IP services* as specified by [IETF RFC 2734 (IPv4 for 1394), supported by RFC 2855 (DHCP for 1394) and RFC 3146 (IPv6 for 1394)]. Many personal computers and other devices sold today include support for IP on the IEEE 1394 interface. Source code for IP on 1394 is widely available. The IP service in 1394 has been adopted by television industry standards such as CEA-2027B to support rich home networking services. The 1394 Trade Association has recently completed an IPv4 over 1394 Test Specification (TS 2009007) to enable consistent Compliance and Interoperability testing of IPv4 over 1394 products.

¹ 47 C.F.R. § 76.640(b)(4). Pursuant to Section 76.640(b)(4), a cable operator is required to include a functional IEEE 1394 interface on high definition set-top boxes provided to consumers.

Intel's waiver request incorrectly states that DLNA "chose IP rather than 1394." In fact, DLNA chose Ethernet rather than 1394 to carry IP. Ethernet and IP are not the same; both 1394 and Ethernet are capable of carrying IP data.

2. 1394 is great for home networking.

1394 is highly capable of home networking, using the same Category 5 cables as Ethernet, and supporting many other cable options including shielded twisted-pair and optical fiber. 1394 can also be carried on residential-grade coaxial cable and splitters in full co-existence with established analog and digital cable TV systems, using standards recently completed by the 1394 Trade Association. Set-top boxes and HDTVs with IEEE 1394 employ DTCP content protection.

3. 1394 is widely deployed and accepted by consumers and is being continually improved through the efforts of the 1394 TA and its members.

In April 2008, the 1394 Trade Association celebrated the shipment of more than one billion 1394 ports to the consumer industry, of which 25 million are in STBs.² This fact stands in stark contrast to the unsubstantiated predictions on the future of 1394 sprinkled throughout the Intel waiver request.

1394 is continually improved through the efforts of the 1394 TA and its members. In support of STBs currently in use and being deployed in the U.S. market, the 1394 Trade Association is in the final stages of approving a USA Set Top Box Test Specification (TS2008003) to enable consistent Compliance and Interoperability testing of STB products. For consumer education, the 1394 TA has championed the availability of free Linux software that enables easy recording from the STB over 1394 (www.redbuttonsoftware.com).

4. Intel's waiver request is too broad.

Intel apparently intends its waiver request to apply very broadly, and not just to set-top boxes using the CE3100 and CE4100 integrated circuits. For that reason, it is inappropriate for the Commission to give any weight to its earlier decision, in very different factual circumstances, to grant a waiver of the IEEE 1394 output requirement for a small Tennessee cable operator serving 7000 homes. The Commission granted the waiver because it was so "limited in scope."³

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Accordingly, Intel's waiver request should be denied. The cable industry has widely deployed set-top boxes with 1394 to consumers, who will gain nothing from "starting over" with a different interconnect, such as Ethernet, that offers no fundamental technical advantages over 1394.

Respectfully submitted,

1394 TRADE ASSOCIATION

² See http://1394ta.org/press/TAPress/2008_0408.html.

³ See *Cable One, Inc.'s Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, Memorandum Opinion and Order, 24 FCC Rcd. 7882, 7888 (2009).

A photograph of a handwritten signature in cursive script, reading "David Thompson". The signature is written in dark ink on a light-colored, textured paper background.

David Thompson
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