



Funai Corporation, Inc.
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November 17, 2006

Mr. Milton Brown
Office of the Chief Counsel
National Telecommunications and Information Administration
1401 Constitution Avenue, Room 4713
Washington, DC 20230

Re: Notice of *Ex Parte* Communication Regarding *Request for Comment and Notice of Proposed Rulemaking to Implement and Administer a Coupon Program for Digital-to-Analog Converter Boxes* (the “NPRM”), NTIA Docket No. 060512129-6129-01.

Dear Sir:

In regards to the above-mentioned proceeding, Funai Corporation (“Funai,” or “we”) submits this letter to report that, on November 15, 2006, Aldo Cugnini of AGC Systems LLC, consultant to Funai, met with NTIA staff and their representatives, on behalf of Funai.

At the meeting, the following issues were discussed:

1. **Smart antenna.** Funai believes that the CEA-909 interface should be among the digital-to-analog converter (“DTA”) functions that are included, but not required, for coupon eligibility. Funai also believes that the so-called “smart antenna,” when bundled optionally with a DTA at the point of sale, should retain coupon eligibility for the bundled package.

Funai also noted that there appears to be substantial industry consensus regarding the utility of a smart antenna and the inclusion of this function for coupon eligibility. We understand that at least one company that formerly questioned the value of this feature is currently evaluating the technology, in order to understand how it may affect tuner design.

2. **Undue RF performance excessively beyond ATSC A/74.** Funai stated its opinion that any requirement for increased RF performance over and above that recommended by MSTV, CEA, and NAB would be counterproductive to a timely rollout of DTA devices. Funai stated its opinion that the widespread need for such increased performance has not been demonstrated sufficiently to warrant the commensurate increase in cost and complexity. It was also noted that no such requirement has been imposed on integrated DTV receivers. Funai also noted that it is not currently known whether existing DTV silicon can meet such increased technical requirements, and therefore such a requirement could pose a significant risk of delay to the Coupon Program.

3. **BTSC stereo / SAP encoding.** Funai stated its opinion that requiring either BTSC encoding and/or SAP encoding would be detrimental to the requirement for low-cost high-quality DTA converters. It is well known that including such functions requires the addition of integrated circuits – some of which carry licensing fees – that ultimately would increase the cost to consumers. In addition, the typical stereo separation afforded by such a device is only about 21dB at midband frequencies.¹ By comparison, the alternative baseband audio output requires insignificant hardware and provides a typical channel separation of more than 60dB.²

Funai stated its opinion that requiring SAP encoding would similarly add cost (as it requires a BTSC encoder), complexity, and confusion to the consumer. An ATSC transmission is inherently capable of transmitting multiple channels and services of audio; SAP re-encoding would require the user to first select the desired channels on his DTA, and then appropriately set up his analog TV to re-process the desired SAP channels. We believe that this extra confusion is not in keeping with the design of an easy-to-use device.

4. **RF A/B switch / analog RF passthrough.** Funai stated its opinion that the inclusion of these functions would be detrimental to the requirement for low-cost high-quality DTA converters. An A/B switch, while useful in some applications, is not universally needed, and therefore would create an unnecessary expenditure for many consumers. An analog passthrough, while conveniently retaining legacy analog TV support, would degrade the RF noise performance of all so-equipped DTA tuners by 3dB – a penalty that could not be recovered by any consumer with such a unit, even if they were situated in an area that required the extra front end sensitivity. Any user who needs either of these functions can obtain it by purchasing a separate switch and/or external splitter.

We appreciate this opportunity to meet with NTIA officials in connection with the NTIA NPRM. Funai is pleased to continue to assist in the development and rollout of this important program.

Respectfully,



Akira Hayashi
Vice President
Funai Corporation

cc: Aldo Cugini, AGC Systems LLC

¹ Analog Devices AD1970 BTSC Encoder, measured over 500Hz – 5kHz.

² Dolby Laboratories has performance-related requirements for the applications of Dolby Digital (AC-3) decoders supporting DTV reception. While specific requirements are detailed in confidential agreements with licensees, licensed equipment generally exhibits a channel separation of greater than 60dB.