CTA Bulletin

Recommended Practice for DTV Receiver "Monitor" Mode Capability

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(Formulated under the cognizance of the CTA **R4.8 DTV Interface Subcommittee**.)

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Foreword

This bulletin was developed under the auspices of the CEA R4.8 DTV Interface Subcommittee.

Recommended Practice for DTV Receiver "Monitor" Mode Capability

1 Scope

CEA-CEB5-B provides recommendations to digital television (DTV) designers and manufacturers concerning a "monitor" mode capability. CEA-762-A provides minimum specifications for a DTV remodulator.

2 Background

In the ATSC system, the DTV receiver[1] tunes according to the Program and System Information Protocol (PSIP) tables present in the ATSC transport stream. The PSIP tables contain the virtual channel identification information (the major and minor channel number) and actual frequency on which the digital signal is transmitted, as well as other data such as time and programming information. In some situations, a "monitor" mode may be needed in DTV receivers. CEA-CEB5-B provides information concerning one approach: a remodulator system.

In a remodulator system, a source unit produces a transport stream that is intended to be sent to the terrestrial RF input of the DTV receiver via an RF cable. The manufacturer may choose a separate RF input for the monitor mode, however the separate RF input should have the same characteristics as the terrestrial RF input to the DTV. Since the remodulator outputs on the frequency of the selected RF channel, any frequency related PSIP data within the transport stream should be ignored, if present. A source unit may already be performing some modification of the transport stream prior to output, but a source unit such as a digital VCR (DVCR) may simply record the entire transport stream of a particular input program and replay it at a later time through the remodulator. The remodulator system should accommodate both types of source units. A remodulator system permits proper display of a program without a specific change to the PSIP content of the transport stream, thus enabling an extremely simple and low complexity source unit using a remodulator to properly interface with a DTV.

3 Informative References

3.1 Informative Reference List

ATSC A/65C, Program and System Information Protocol for Terrestrial Broadcast and Cable, with Amendment No. 1, May 9, 2006

CEA-762-A, DTV Remodulator Specification, October 2002

3.2 Informative Reference Acquisition

ATSC Standards:

- Advanced Television Systems Committee, 1750 K Street N.W., Suite 1200, Washington, DC 20006; Phone 202-872-9160; Fax 202-828-3131; Internet http://www.atsc.org/.

CEA Standards and Bulletins:

- Techstreet, 3916 Ranchero Drive, Ann Arbor, MI USA 48108; Phone 800-699-9277; Fax 734-780-2046; Internet http://www.techstreet.com; Email techstreet.service@thomsonreuters.com

[1] For CEA-CEB5-B purposes, a DTV receiver is defined as an ATSC compliant receiving device.