ANSI/CEA Standard

Emergency Alert Messaging for Cable

J-STD-042-A
(CEA-814-A)

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Approved American National Standard
ANSI

CEA
Consumer Electronics Association
www.CE.org

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(Formulated under the cognizance of the CEA's **R8 Cable Compatability Committee**.)

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FOREWORD

This standard was originally developed under the auspices of the NCTA/CEA Digital Standards Subcommittee.

J-STD-042-A supersedes J-STD-042.

NOTE—This standard was processed within SCTE as SCTE 18. This standard was processed within CEA as CEA-814-A.

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Emergency Alert Messaging for Cable

1 Scope

This standard defines an Emergency Alert signaling method for use by cable TV systems to signal emergencies to digital receiving devices that are offered for retail sale. Such devices include digital set-top boxes that are sold to consumers at retail, digital TV receivers, and digital video recorders.
The Emergency Alert signaling (EAS) scheme defined in this standard allows a cable operator to disseminate emergency alert information related to state and local-level emergencies and warnings in an efficient way, while minimizing disruption to programming. While it is possible for a cable operator to comply with EAS requirements by simply replacing the source signal for all programs with an emergency information channel, such switching is disruptive to viewing, is overly intrusive for many kinds of local warnings and is overly-complex for the cable operator to implement in a digital cable environment where each transport stream may carry many programs that would have to be individually interrupted. Based on the priority level of the alert, the Emergency Alert message may instruct the receiving device to force-tune to a designated emergency broadcast channel.

Section 5 of this standard defines the syntax of the Emergency Alert message and related descriptors. This message is in the form of a standard MPEG-2 table and, when necessary, is delivered in-band on cable transport streams that carry one or more programs in-the-clear. Receiving devices without Point Of Deployment (POD)[1] modules in place process such messages in accordance with requirements described in Section 7 of this standard. For programs that are scrambled on a cable system, the Emergency Alert message is delivered to the POD module using the cable system's forward data channel. The POD module processes the message as necessary and delivers it to the receiving device out-of-band. As used in this standard, "out-of-band" refers to the Extended Channel interface defined in ANSI/SCTE 28 2004 [5]. As delivered to the receiving device by the POD module, the Emergency Alert message is in the form of an MPEG-2 table as defined in Section 5 of this standard. The receiving device then processes the message in accordance with Section 7 of this standard.

The behavior of receiving devices in response to user actions, such as channel changes or accessing on-screen displays, where such user actions relate to acquisition and processing of Emergency Alert messages, is out of scope of this standard.

2 Overview

Emergency message support for receiving devices involves the following elements:

a) A signaling scheme to identify the presence of an Emergency Alert.
b) The start time and expected duration of the alert event.[2]
c) A textual description of the emergency alert.
d) An indication of the availability and location of the "details" channel, an audio/video service pertaining to the alert.
e) An indication whether the event is of sufficient importance that tuning to the details channel shall be done unconditionally.
f) A pointer to an optional audio channel that can be used to replace the audio of the current service for the duration of the Emergency Alert message.

This standard defines a **cable_emergency_alert()** message in the form of an MPEG-2 **private_section()** (per MPEG-2 Systems [2] Table 2-30), compatible with MPEG-2 transport.

[1] The Point Of Deployment module is also known as a CableCARD™ device.

[2] For example, a flood warning might start at 4pm and last for 8 hours.