§ 11.32 EAS Encoder.

(a) EAS Encoders must at a minimum be capable of encoding the EAS protocol described in §11.31 and providing the EAS code transmission requirements described in §11.51. EAS encoders must additionally provide the following minimum specifications:

(1) Encoder programming. Access to encoder programming shall be protected by a lock or other security measures and be configured so that authorized personnel can readily select and program the EAS Encoder with Originator, Event and Location codes for either manual or automatic operation.

(2) Inputs. The encoder shall have two inputs, one for audio messages and one for data messages (RS–232C with standard protocol and 1200 baud rate).

(3) Outputs. The encoder shall have two outputs, one audio port and one data port (RS–232C with standard protocol and 1200 baud rate).

(4) Calibration. EAS Encoders must provide a means to comply with the modulation levels required in §11.51(f).

(5) Day-Hour-Minute and Identification Stamps. The encoder shall affix the JJHHMM and LLLLLLLL codes automatically to all initial messages.

(6) Program Data Retention. Program data and codes shall be retained even with the power removed.

(7) Indicator. An aural or visible means that it activated when the Pre-amble is sent and deactivated at the End of Message code.

(8) Spurious Response. All frequency components outside 200 to 4000 Hz shall be attenuated by 40 dB or more with respect to the output levels of the mark or space frequencies.

(9) Attention Signal generator. The encoder must provide an attention signal that complies with the following:

(i) Tone Frequencies. The audio tones shall have fundamental frequencies of 683 and 960 Hz and not vary over ±0.5 Hz.

(ii) Harmonic Distortion. The total harmonic distortion of each of the audio tones may not exceed 5% at the encoder output terminals.

(iii) Minimum Level of Output. The encoder shall have an output level capability of at least +2 dBm into a 600 Ohm load impedance at each audio

§ 11.33

EAS Decoder.

(a) An EAS Decoder must at a minimum be capable of decoding the EAS protocol described in §11.31, provide the EAS monitoring functions described in §11.52, and the following minimum specifications:

(1) Inputs. Decoders must have the capability to receive at least 2 audio inputs from EAS monitoring assignments, and one data input (RS-232C with standard protocol and 1200 baud rate). The data input may be used to monitor other communications modes such as Radio Broadcast Data System (RBDS), NWR, satellite, public switched telephone network, or any other source that uses the EAS protocol.

(2) Valid codes. There must be a means to determine if valid EAS header codes are received and to determine if preselected header codes are received.

(3) Storage. Decoders must provide the means to:

(i) Record and store, either internally or externally, at least two minutes of audio or text messages. A decoder manufactured without an internal means to record and store audio or text must be equipped with a means (such as an audio or digital jack connection) to couple to an external recording and storing device.

(ii) Store at least 10 preselected event and originator header codes, in addition to the seven mandatory event/originator codes for tests and national activations, and store any preselected location codes for comparison with incoming header codes. A non-preselected header code that is manually transmitted must be stored for comparison with later incoming header codes. The header codes of the last ten received valid messages which still have valid time periods must be stored for comparison with later incoming header codes. The last received header codes will be deleted from storage as their valid time periods expire.

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§ 11.33   EAS Decoder.

(a) An EAS Decoder must at a minimum be capable of decoding the EAS protocol described in §11.31, provide the EAS monitoring functions described in §11.52, and the following minimum specifications:

(1) Inputs. Decoders must have the capability to receive at least 2 audio inputs from EAS monitoring assignments, and one data input (RS-232C with standard protocol and 1200 baud rate). The data input may be used to monitor other communications modes such as Radio Broadcast Data System (RBDS), NWR, satellite, public switched telephone network, or any other source that uses the EAS protocol.

(2) Valid codes. There must be a means to determine if valid EAS header codes are received and to determine if preselected header codes are received.

(3) Storage. Decoders must provide the means to:

(i) Record and store, either internally or externally, at least two minutes of audio or text messages. A decoder manufactured without an internal means to record and store audio or text must be equipped with a means (such as an audio or digital jack connection) to couple to an external recording and storing device.

(ii) Store at least 10 preselected event and originator header codes, in addition to the seven mandatory event/originator codes for tests and national activations, and store any preselected location codes for comparison with incoming header codes. A non-preselected header code that is manually transmitted must be stored for comparison with later incoming header codes. The header codes of the last ten received valid messages which still have valid time periods must be stored for comparison with later incoming header codes. The last received header codes will be deleted from storage as their valid time periods expire.

(4) Display and logging. A visual message shall be developed from any valid header codes for tests and national activations and any preselected header codes received. The message shall include the Originator, Event, Location, the valid time period of the message and the local time the message was transmitted. The message shall be in the primary language of the EAS Participant and be fully displayed on the decoder and readable in normal light and darkness. All existing and new models of EAS decoders manufactured after August 1, 2003 must provide a means to permit the selective display and logging of EAS messages containing header codes for state and local EAS events. Effective May 16, 2002, analog radio and television broadcast stations, analog cable systems and wireless cable systems may upgrade their decoders on an optional basis to