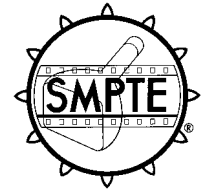


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SMPTE STANDARD

ANSI/SMPTE 222M-1994Revision of
ANSI/SMPTE 222M-1987

for Television — Control and Review Rooms — Monitor System Electroacoustic Response



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1 Scope

1.1 This standard specifies the method of measurement and characteristics for the monitor chain electroacoustic response of television control and review rooms with volumes of 150 m³ (5300 ft³) and smaller. It is intended to assist in standardization of reproduction of program sound in television control and review rooms.

1.2 It does not apply where the recorded sound is intended for reproduction under theater listening conditions; i.e., to motion-picture or public address systems. This standard does not cover equalization standards for other parts of the system, such as fixed or variable equalization applied for noise reduction around tape recorders, or the like.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

ANSI S1.13-1971 (R1986), Methods for the Measurement of Sound Pressure Levels

3 Definitions

3.1 complete sound reproduction system: Represented diagrammatically in figure 1 and used in television control and review rooms, consisting of a main chain and a monitor chain.

3.2 main chain: That part of the television audio system which includes input transducers, audio, and the audio portion of video tape and/or disk recorders, pretransmitter audio signal processing, and the aural transmitter.

3.3 monitor chain: That part of the television audio system which includes the monitor fader, monitor equalization, monitor loudspeaker, and room acoustics of the monitor environment.

3.4 electroacoustic response: The electroacoustic response of the monitor chain at a point is the sound pressure level expressed in decibels with respect to a reference level of 20 μPa at 1 kHz measured over the bandwidth of the measuring system in use (see annex A) over a given frequency range measured at a given position in the listening area when pink noise is applied to the input of the monitor system. The overall electroacoustic response is made by averaging points in the room by the method specified in 4.2.

3.5 pink noise: A continuous spectrum of random noise exceeding the bandwidth of the object under test having constant energy per constant percentage of bandwidth (equal energy per octave).

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