

PROPOSED SMPTE RECOMMENDED PRACTICE

Audio Levels for Digital Audio Records on Digital Television Tape Recorders

1 Scope

This practice specifies a reference amplitude to be used for the calibration of audio level indicators and to be recorded on the digital audio records of reference tapes intended for digital television tape recorders to facilitate the interchange of digital television tape recordings.

maximum in which the positive peak attains the value 7FFF (hex) and the negative peak attains the value 8000 (hex).

2.2 Where present in a system in analog form, the reference signal shall be a 1000-Hz sine wave with an amplitude such that the system analog-to-digital converter generates a digital representation as in 2.1.

2 Specifications

2.1 The reference signal shall be the digital representation, in two's complement format, of a 1000-Hz sine wave whose positive peaks attain the value 0CCD (hex) and whose negative peaks attain F333 (hex), considering only the 16 most significant bits. This is 20 dB below the system

2.3 Level monitoring meters shall be calibrated such that the steady-state reference signal (-20 dB FS) corresponds to the normal operating level of program audio signals.

2.4 Preemphasis shall not be used when recording the reference signal.

Annex A (informative) Adjustable levels

A single reference level on tape is required for reliable interchange of tapes. Because there are a variety of applications that utilize different operating levels external to the DITR, gain translations between the on-tape reference and

the external system is required. Product designers are encouraged to provide input and output digital audio gain adjustments with a default position corresponding to transparent, nonprocess unity gain.