PROPOSED

SMPTE RECOMMENDED PRACTICE — RP 86

Video Record Parameters for 1-in Type C Helical-Scan Video Tape Recording

1. *Scope*

This practice specifies parameters of the recorded information essential to the interchange of 1-in Type C helical-scan video tape recordings of the 525/60 monochrome or NTSC color systems. The parameters include video pre-emphasis characteristics, recorded carrier frequencies and record-current frequency response.

2. *Signal Processing*

2.1 A signal processing system consisting of elements specified by this practice will contain, in order of signal flow, the following elements:

2.1.1 A means to modify the burst amplitude

2.1.2 A video pre-emphasis network

2.1.3 A linear frequency-modulator having constant deviation with respect to modulating frequencies

2.1.4 An amplifier of the frequency-modulated carrier to provide alternating current drive to the video and sync record heads

3. *Burst Amplitude*

A means shall be used to increase the burst amplitude of the signal to be recorded by 6.0 ± 0.1 dB with respect to the video and sync portion of the composite video waveform. Phase of the burst shall be maintained to within ± 1°.

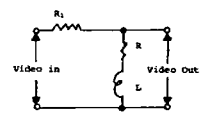
4. *Pre-emphasis*

4.1 Pre-emphasis is defined by the frequency and phase characteristics of a network such as shown in the figure. Accuracy of the pre-emphasis time constants shall be maintained by including source and load impedances (not shown) in calculation of circuit values.

4.2 Time-constant values specifying the pre-emphasis network are:

Time constant $t_1 = 240$ ns

Time constant $t_2 = 600$ ns



$$t_1 = \frac{L}{R_1 + R}$$

$$t_2 = \frac{L}{R}$$

$$\frac{V\,out}{V\,in} = \frac{j\omega t_2 + 1}{j\omega t_1 + 1}\,\frac{t_1}{t_2}$$

5. *Recorded Carrier Frequencies*

Carrier frequencies corresponding to reference video levels shall be:

Peak-white	10.00 ± 0.05 MHz
Blanking	7.90 ± 0.05 MHz
Sync-tip	7.06 MHz nom

6. *Record Head Current*

6.1 Amplitude of the record current shall be such that a maximum tape-flux level is produced when recording a signal with 50% average picture level.

6.2 The amplitude versus frequency characteristic of the current applied to the record head windings shall decrease with increasing frequency. The recorded tape-flux frequency characteristic shall be equivalent to recording a constant current versus frequency sine wave modified by one time-constant low-pass filter with a 6-MHz, 3-dB bandwidth driving a head with pole tips made of ferrite material.

NOTE: In addition to this practice, there is available Draft American National Standard Basic System and Transport Geometry Parameters for 1-in Type C Helical-Scan Video Tape Recording, C98.18.

PROPOSED

SMPTE ENGINEERING COMMITTEE RECOMMENDATION — ECR 2

Edge Identification of Motion-Picture Raw Stock Containers

Purpose

The purpose of this practice is to

(a) minimize the handling of raw stock containers during storage

(b) facilitate identification of raw stock containers when only the edges of containers are visible

(c) recommend a uniform practice in any future additions to container edge identification information when such a system is used by raw stock manufacturers

(d) ensure that container edge identification information conforms to labeling on the face of the container.

1. *Scope*

This practice specifies the system and items of raw stock identification to be used by the manufacturer when the edge of raw stock containers carries such identification. Recommendations for the physical size and location of identifying information are also specified.

2. *Identification*

2.1 System of Identification. The physical specification of the raw stock shall be given in terms of the code specified in American National Standard Motion-Picture Raw Stock Identification and Labeling, PH22.184-1973.

2.2 Items of Identification. In addition to the manufacturer's product code identification, a concise physical specification of the raw stock should appear. The amount of information given shall be at the option of the manufacturer and related to the practical considerations of space available. Advertising and/or all other nondescriptive items shall be excluded from the edge identification area but may be shown on the face of the container.

2.3 Manufacturer's Code. The manufacturer's product code identification shall precede the physical specification code. It shall include the film code number, emulsion number, roll number and cut identification.

3. *Characteristics and Location*

3.1 Characteristics of Container Edge Identification Information

3.1.1 The characters shall be of a suitable size so that they are legible to an average viewer at a distance of five feet with tungsten illumination (illuminance) at a level of 54 lux (50 foot-candles). Bold-face, lower-case characters 3.18 mm (0.125 in) in height and occupying an average linear spacing (including spaces) of 3.18 mm (0.125 in) shall be regarded as minimal, for example:

motion-picture raw stock identification and labeling

3.1.2 The characters shall have a color which is visible under the most commonly used spectrum colors of darkroom safelight illumination.

3.1.3 The characters shall be printed on a background which affords maximum contrast.

3.2 Location of Information. Identifying information may be printed on the adhesive tape commonly used to seal the edge of raw stock containers. Alternately, it may be shown on a separate label inserted into or attached to the edge of the container, or on the edge of the container itself.