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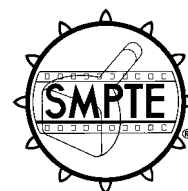
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SMPTE RECOMMENDED PRACTICE

RP 6-1994

Revision of RP 6-1985

Recorded Carrier Frequencies and Preemphasis Characteristics for 2-in Quadruplex Video Magnetic Tape Recording for 525-Line/60-Field Television Systems



Page 1 of 3 pages

1 Scope

1.1 This practice specifies parameters of the recorded information essential to the interchange of 2-in quadruplex video magnetic tape recording of monochrome and NTSC color signals for 525-line/60-field television systems. The parameters include video preemphasis characteristics and recorded carrier frequencies for all recording practices and video pilot specifications for practice SHBP.

1.2 Practices defined are:

1.2.1 practice SHBP: This practice is suitable for color and monochrome signals. A video pilot signal is added to the recorded information to be used as a playback reference.

1.2.2 practice HB: This practice is suitable for color and monochrome signals.

1.2.3 practice LBM: This practice is suitable only for monochrome signals. (It is considered to be obsolescent and is included for reference purposes only.)

1.2.4 practice LBC: This practice is suitable for color and monochrome signals. (It is considered to be obsolescent and is included for reference purposes only.)

2 Recording chain

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

2.1.1 Video processing and signal generating circuits used only for practice SHBP;

2.1.2 A video preemphasis network;

2.1.3 A linear frequency modulator having constant deviation with respect to the modulating video frequencies;

2.1.4 An amplifier of the frequency-modulated carrier to provide alternating-current drive to the pole tips.

3 Preemphasis

3.1 Preemphasis is defined by the frequency and phase characteristics of a network as shown in figure 1. Accuracy of preemphasis time constants shall be maintained by including source and load impedances (not shown) in the calculation of circuit values.

3.2 Time constant values specifying the preemphasis network for each practice are listed in the table below:

	SHBP	HB	LBM	LBC
Time constant τ_1 (ns)	333.3	240	26.4	31.7
Time constant τ_2 (ns)	2500	600	132	240
Tolerance	$\pm 0.25\%$	Not specified	Not specified	Not specified