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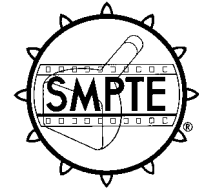
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SMPTE RECOMMENDED PRACTICE

RP 121-1997

Revision of RP 121-1993

Tape Dropout Specifications for 1-in Types B and C Video Tape Recorders/Reproducers



Page 1 of 2 pages

1 Scope

1.1 This practice defines the parameters for tape dropouts encountered in the reproduced FM signal of 1-in types B and C video magnetic recorders/reproducers.

1.2 This practice is intended as an aid in the evaluation of dropout characteristics of magnetic tape, not as a specification for recorder/reproducer setup.

2 Basic parameters

Basic parameters of the recorder/reproducer are defined in the following documents:

Type B recorder/reproducer

Basic parameters:	ANSI/SMPTE 15M
Carrier frequencies and preemphasis:	SMPTE RP 84
Audio frequency response and operating level:	ANSI/SMPTE 17M
Record dimensions:	ANSI/SMPTE 16M

Tracking-control record: SMPTE RP 83

Type C recorder/reproducer

Basic parameters:	ANSI/SMPTE 18M
Audio frequency response and operating level:	ANSI/SMPTE 20M
Record dimensions:	ANSI/SMPTE 19M

Video record parameters:	SMPTE RP 86
Tracking-control record:	SMPTE RP 85

3 Definition

For the purpose of this practice, a dropout is a momentary random reduction of the recovered frequency modulated rf playback signal that is sufficient to cause a substantial impairment in the video output signal of a 1-in type B or type C tape recorder/reproducer.

4 Specifications

The signal level reduction to be classified as a dropout must be at least 5 μ s in duration and have an rf level reduction of 16 dB or more.

5 Measurement conditions

When dropout measurements are conducted, the pole tip protrusion and tape tension of the video recorder/reproducer shall be as follows:

Pole tip protrusion:	Type B	30 μ m $\pm$ 5 μ m
	Type C	60 μ m $\pm$ 10 μ m

Tape tension: Tape tension for the recorder/reproducer shall be in accordance with the manufacturer's published specifications.