

Dimensions of Magnetic Control and Data Record on 8-mm Type S Motion-Picture Film

Appendix

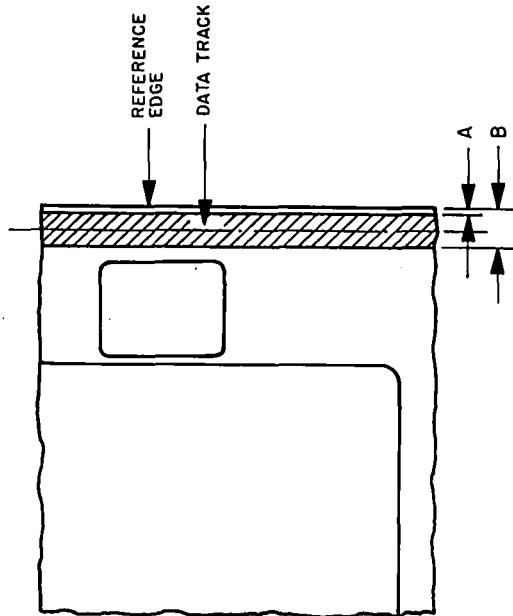
(The Appendix is not a part of this SMPTE Recommended Practice, but is included for information purposes only.)

A1. Balance Stripe Composition
The data track recording specified in this practice is on the balance stripe of magnetically striped 8-mm Type S motion-picture film. Such film is striped in accordance with American National Standard Dimensions of Magnetic Striping of 8-mm Type S Motion-Picture Film, ANSI PH22.161.1980. That standard states that the balance stripe may be made of either magnetic or non-magnetic material. Thus, the user of this practice should be aware that film may exist which has a balance stripe which is suitable to fulfill its intended purpose of facilitating winding, but which is not suitable for magnetic data recording.

A2. Reproducing Head Gap Width
It will normally be good practice to make the reproducing head as wide as possible in order to be tolerant to film wear and misplacement of the recorded track. A restriction to this is the possibility of grooving of a reproducing head wider than the balance stripe, which grooving damages the head and eventually the film.

Page 1 of 2 pages

- 1. *Scope*
This practice specifies the lateral location and dimensions of a magnetic control and data record on 8-mm Type S motion-picture film.
- 2. *Data Record*
2.1 The dimensions and lateral location of the control and data record shall be as specified in the figure and table.
2.2 The recording shall be made so that the azimuth of the record is at an angle of $90^\circ \pm 1^\circ$ to the reference edge of the film.
2.3 The recording is on the balance stripe of the film.



Dimensions	Inches	Millimeters
A	0.006 max	0.15 max
B	0.012 min	0.30 min

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SMPTE RECOMMENDED PRACTICE

Dimensions of Photographic Control and Data Record on 8-mm Type S Motion-Picture Prints

3. *Reproducer Spectral Sensitivity*

The peak or maximum response of the combination of the control and data track reproducer, light source, filter, and receptor shall be at 550 +

130 — 0 nanometers. The integrated response of this combination to all wavelengths greater than 800 nm shall be less than 5 percent of the total integrated response measured from 400 to 800 nm.

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The spectral response specified in Section 3 is intended to ensure that the control and data track will be adequately reproduced whether the track image is formed of dyes, silver, or dyes and silver. Restriction of the infrared response is necessary because the dyes used in conventional color motion-picture films do not absorb infrared light effectively. Since dirt and scratches on the film will absorb

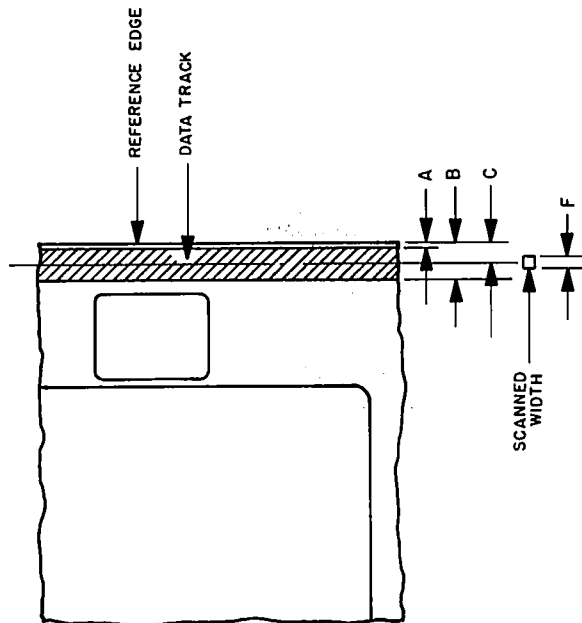
infrared light, restriction of the infrared response will improve the signal-to-noise ratio of the system.

It should be noted that, in some cases, edge printing may interfere with the data track; for example, some prints use the data track area for printing the second language track.

2. *Data Record*

- 2.1 The dimensions and lateral location of the control and data record shall be as specified in the figure and table.
- 2.2 The recording and reproducing slit images shall be positioned at an angle of $90^\circ \pm 1^\circ$ to the reference edge of the film.

This practice specifies the lateral location and dimensions of a photographic control and data record on 8-mm Type S motion-picture prints, the width scanned by the control and data reproducer, and the reproducer spectral sensitivity.



Dimensions	Inches	Millimeters
A	0.005 ± 0.002	0.08 ± 0.05
B	0.017 ± 0.002	0.43 ± 0.05
C	0.010 ± 0.001	0.25 ± 0.03
F	0.005 ± 0.001	0.13 ± 0.03

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