

SMPTE STANDARD

SMPTE 163-1998Revision of
ANSI/SMPTE 163-1992

for Motion-Picture Film (8-mm Type S) — 35-mm Film Perforated 8-mm Type S, 5R — Magnetic Striping



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1 Scope

This standard specifies the location and dimensions of the magnetic recording stripes and the balance stripes applied to 35-mm motion-picture film with four rows of 8-mm type S perforations and one row of special perforations.

2 Normative references

The following standards contain provision which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below.

ANSI/SMPTE 165-1994, Motion-Picture Film (35-mm) — Perforated 8-mm Type S, 5R (1-3-5-7-0)

SMPTE 161-1998, Motion-Picture Film (8-mm Type S) — Magnetic Striping

3 Dimensions

3.1 The location and dimensions of the magnetic recording stripes and balance stripes shall be as given in figure 1 and table 1.

3.2 The magnetic striping material shall be applied to the surface of the film away from a camera or projector lens, for example, toward the light source of a projector arranged for direct front projection on a reflection-type screen.

3.3 The stripes designated as "recording" are made of a magnetic material and are intended for the audio record. The balance stripes may be stripes of magnetic or nonmagnetic material of such thickness that the balance and recording stripes project above the surface of the film to substantially the same degree.

4 Film stock

The film stock used shall be safety type, cut and perforated in accordance with ANSI/SMPTE 165.

NOTES

1 The width and edge-to-perforation distance of the 8-mm slit strip shall be in accordance with ANSI/SMPTE 165. The location of the magnetic recording and balance stripes shall be in accordance with SMPTE 161. Consequently, it is not possible to take full advantage of the tolerance of both the slit width and the location of the magnetic recording and balance stripes.

2 Tolerances for the recording stripes and balance stripes are specified to permit usage of a single wide stripe or two separate stripes where they are adjacent. If two stripes are used, the amount of separation between the stripes should be sufficient to permit slitting within the requisites of the standard without obtaining undesirable feather edges of magnetic material. The separation required is determined by laboratory practice.

3 Notwithstanding the tolerance on dimensions M_1 , N_1 , M_2 , N_2 , M_3 , N_3 , M_4 , and N_4 , the width of the stripe, dimension N minus M , shall be 0.0250 in (0.635 mm) minimum.

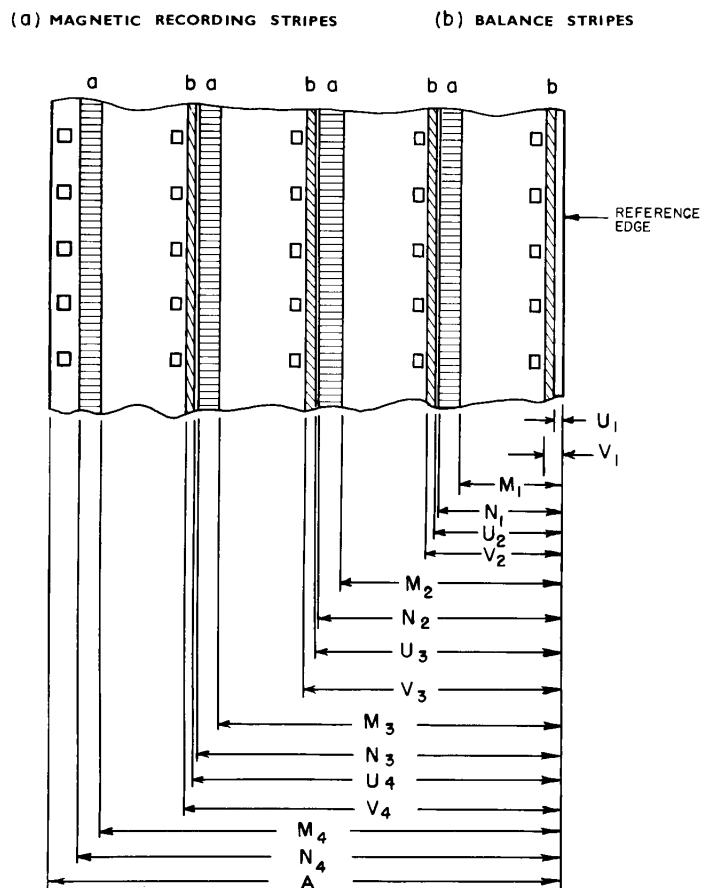


Figure 1 – Dimensions

Table 1 – Specifications

Dimensions	Inches	Millimeters
A	1.377 nom	34.98 nom
M ₁ ¹⁾	0.315 ± 0.002	8.00 ± 0.05
M ₂ ¹⁾	0.629 ± 0.002	15.98 ± 0.05
M ₃ ¹⁾	0.943 ± 0.002	23.95 ± 0.05
M ₄ ¹⁾	1.257 ± 0.002	31.93 ± 0.05
N ₁ ¹⁾	0.342 ± 0.002	8.69 ± 0.05
N ₂ ¹⁾	0.656 ± 0.002	16.66 ± 0.05
N ₃ ¹⁾	0.970 ± 0.002	24.64 ± 0.05
N ₄ ¹⁾	1.284 ± 0.002	32.61 ± 0.05
U ₁	0.033 ± 0.003	0.84 ± 0.08
U ₂	0.347 ± 0.003	8.81 ± 0.08
U ₃	0.661 ± 0.003	16.79 ± 0.08
U ₄	0.975 ± 0.003	24.76 ± 0.08
V ₁	0.045 ± 0.003	1.14 ± 0.08
V ₂	0.359 ± 0.003	9.12 ± 0.08
V ₃	0.673 ± 0.003	17.09 ± 0.08
V ₄	0.987 ± 0.003	25.07 ± 0.08

¹⁾See note 3.