

Specifications for Safe Action and Safe Title Areas Test Pattern for Television Systems

1 Scope

This practice specifies the format, dimensions, and optical densities for a test pattern for safe action and safe title areas for television systems.

2 Purpose

This practice specifies a test pattern which indicates the safe action image area within which all significant action must take place and the safe title image area within which the more important information must be confined to ensure visibility of the information on the majority of home television receivers.

3 Format

3.1 Pattern

A reproduction of the test pattern is shown in figure 1.

3.2 Area limit markings

Dashed lines having the shape and dimensions shown in the figures and table shall be provided to indicate the boundaries of the safe action and title areas.

3.3 Arrows and border

The eight boundary arrows and border define the edge of the test pattern area and the scanned area.

3.4 Pattern identification

The identification number of this practice shall appear on the pattern as specified in the figures.

4 Dimensions

4.1 Test pattern

The dimensions of the test pattern shall be as shown in figure 2 and the table in percentage of frame height and reproduced with a tolerance of $\pm 2\%$ of the frame height.

4.1.1 The area identification marks shall be positioned symmetrically on the centerlines of the image area as specified in 4.4 within $\pm 2\%$ of the respective dimension.

4.2 Image size

The size of the scanned area, as indicated by the eight boundary arrows, shall be as follows:

4.2.1 2x2-in test slides shall have image dimensions in accordance with American National Standard for Television — Image Areas and Mounts for Slides and Opaques, ANSI/SMPTE 94-1985.

4.2.2 35-mm test films shall have image dimensions in accordance with American National Standard for Motion-Picture Film (35-mm) — Television Image Area, ANSI PH22.95-1984.

4.2.3 16-mm test films shall have image dimensions in accordance with American National Standard Dimensions for Television Image Area on 16-mm Motion-Picture Film, ANSI PH22.96-1982.

4.3 Black-and-white border

The dimensions of the black-and-white border shall be as given in table 1.



Figure 1 – Reproduction of test pattern

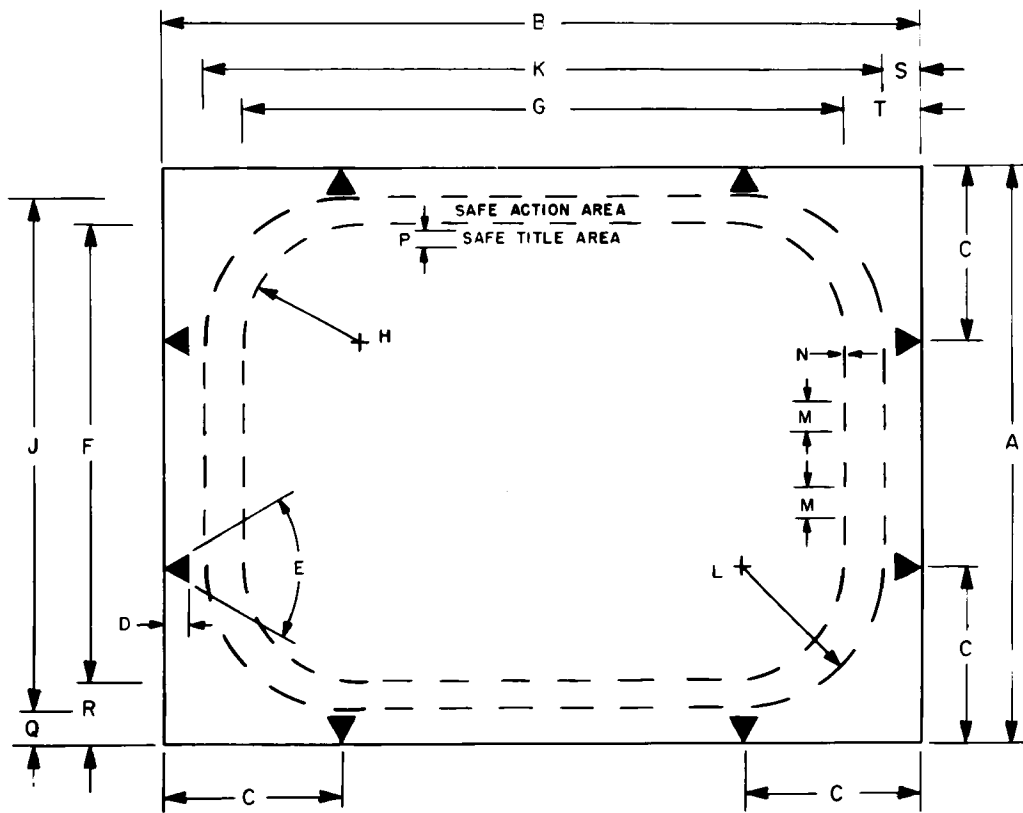


Figure 2 – Dimensional drawing of test pattern

Table 1 – Specifications

	Dimensions	Percent	Inches		
			2x2	35-mm	16-mm
A	Scanned image height	100.0	0.843	0.594	0.276
B	Scanned image width	133.3333	1.124	0.792	0.368
C	Position of arrow	30.0	0.253	0.178	0.083
D	Arrow length	4.0	0.034	0.024	0.011
E	Arrow shape in degrees		40.0	40.0	40.0
F	Height of safe title area	80.0	0.674	0.475	0.221
G	Width of safe title area	106.0	0.899	0.630	0.293
H	Corner radius, safe title area	21.0	0.177	0.125	0.058
J	Height of safe action area	90.0	0.759	0.535	0.248
K	Width of safe action area	120.0	1.012	0.713	0.331
L	Corner radius, safe action area	24.0	0.202	0.143	0.066
M	Length and spacing of lines	5.0	0.042	0.030	0.014
N	Width of line	0.5	0.004	0.003	0.0014
P	Height of letters	2.5	0.021	0.015	0.007
Q	Vertical position of action area	5.0	0.042	0.030	0.014
R	Vertical position of title area	10.0	0.084	0.059	0.028
S	Horizontal position of action area	6.67	0.056	0.040	0.018
T	Horizontal position of title area	13.33	0.112	0.079	0.037

4.3.1 Height and width dimensions of the black-and-white border for 2x2 in slides shall extend to the minimum dimensions specified in ANSI/SMPTE 94-1985.

4.3.2 For 35-mm motion-picture films, the black-and-white border shall extend to the dimensions specified by style A in American National Standard for Motion-Picture Film (35-mm) — Camera Aperture Images, ANSI/SMPTE 59-1989.

4.3.3 For 16-mm motion-picture films, the black-and-white border shall extend to the dimensions specified in American National Standard for Motion-Picture Film (16-mm) — Camera Aperture Image and Usage, ANSI/SMPTE 7-1988.

4.4 Line width

The line width of the area limit marks shall be $0.50 \pm 0.05\%$ of picture height.

4.5 Lettering

The lettering shall be bold and of a style and size shown in the figures.

4.6 Safe title

Dimensions F, G, H, R, and T shall not limit moving titles. Horizontally moving titles (crawls) and vertically

moving titles (rolls) are allowed to move to and between the extreme edges of the scanned image.

5 Optical densities

5.1 Optical densities

All optical densities shall be measured in accordance with American National Standard for Photography — Density Measurements — Geometric Conditions for Transmission Density, ANSI PH2.19-1986.

5.2 Background

The black background shall have a density greater than 1.9.

5.3 Density

The density of the dashes, arrows, and lettering shall be nominally clear.

NOTE 1: The emulsion position shall correspond to the one normally used for the specific format.

NOTE 2 Test material conforming to this practice is available from the Society of Motion Picture and Television Engineers.