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**Cinematography — Multichannel analogue  
and digital photographic sound and control  
records on 35 mm motion-picture prints  
and negatives, and digital sound-control  
records on 70 mm motion-picture prints  
and negatives — Position and width  
dimensions**

*Cinématographie — Enregistrements des commandes et du son  
photographiques analogiques et numériques multicanaux sur copies et  
négatifs cinématographiques 35 mm, et enregistrements des commandes  
sonores numériques sur copies et négatifs cinématographiques 70 mm —  
Position et dimensions en largeur*



Reference number  
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## Foreword

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ISO 17266 was prepared by Technical Committee ISO/TC 36, *Cinematography*.

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# Cinematography — Multichannel analogue and digital photographic sound and control records on 35 mm motion-picture prints and negatives, and digital sound-control records on 70 mm motion-picture prints and negatives — Position and width dimensions

## 1 Scope

This International Standard specifies the lateral, and vertical where applicable, positions and width dimensions of multichannel analogue and digital photographic sound records and control tracks on 35 mm and 70 mm motion-picture prints and negatives.

## 2 Positions and dimensions

**2.1** The general positions of analogue, control and digital tracks for 35 mm motion-picture film are shown in Figure 1.

**2.2** The positions and dimensions of the analogue area shall be as shown in Figure 2 and given in Table 1.

**2.3** The positions and dimensions of the type I digital sound records for positive print film shall be as shown in Figure 3 and given in Table 2.

**2.4** The positions and dimensions of the type I digital sound records for negative film shall be as shown in Figure 3 and given in Table 3.

**2.5** The positions and dimensions of the type II digital sound records for positive print film shall be as shown in Figure 4 and given in Table 4.

**2.6** The positions and dimensions of the type II digital sound records for negative film shall be as shown in Figure 4 and given in Table 5.

**2.7** The positions and dimensions of the type III digital control track for positive print film shall be as shown in Figure 5 and given in Table 6.

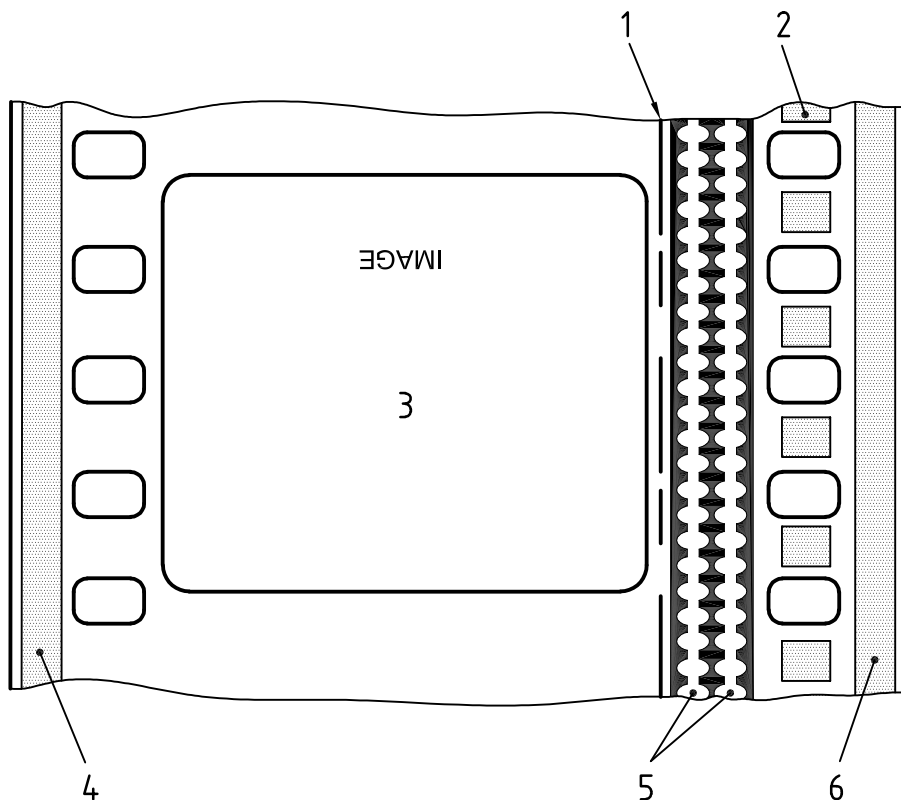
**2.8** The positions and dimensions of the type III digital control track for negative film shall be shown in Figure 5 and given in Table 7.

**2.9** The positions and dimensions of the type III digital control track for 70 mm positive print film shall be as shown in Figure 6 and given in Table 8.

**2.10** The positions and dimensions of the type III digital control track for 35 mm negative film for the printing of 70 mm positive print film shall be as shown in Figure 7 and given in Table 9.

### 3 Analogue sound records

- 3.1 Channel 1 and channel 2 (often known as left total and right total) shall be positioned in line at an angle of  $90^\circ \pm 5'$  to the reference edge of the film.
- 3.2 Channel 2 shall be recorded nearest the outer edge of the film, as shown in Figure 2.
- 3.3 The septum area between channels 1 and 2 shall be effectively opaque on prints.



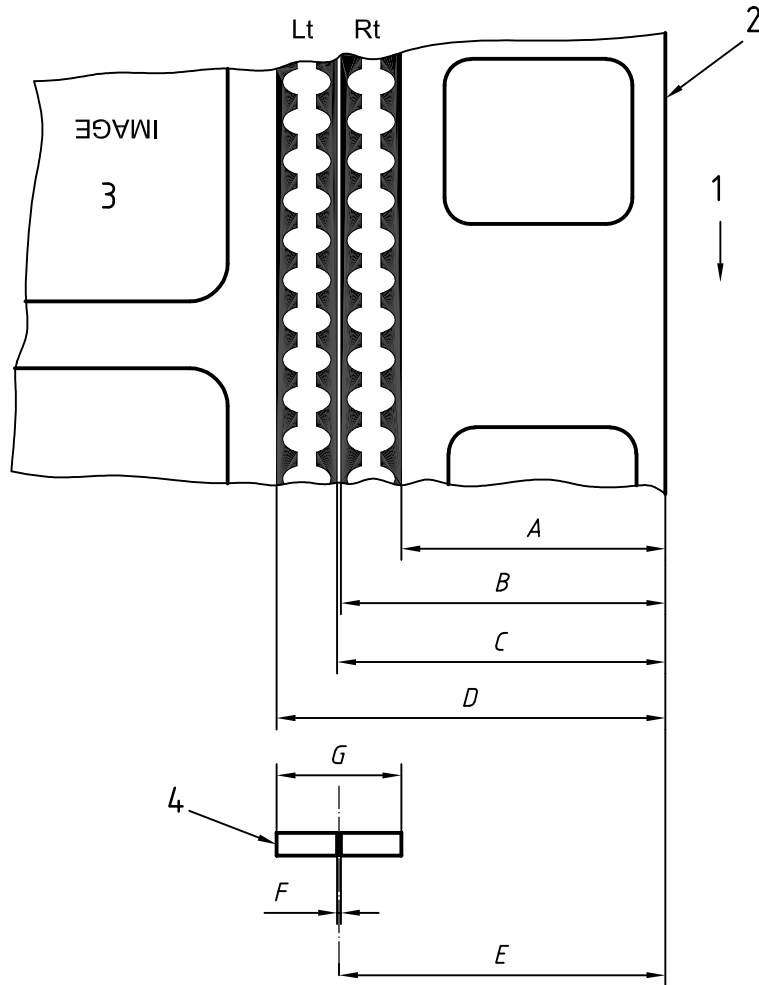
**Key**

- 1 Type III
- 2 Type I
- 3 Image
- 4 P track type II
- 5 Analogue sound records
- 6 S track type II

**NOTE**

- Type I: Interperforation — digital
- Type II: Outerperforation — digital
- Type III: Control track

**Figure 1 — Composite audio data track and control placement**



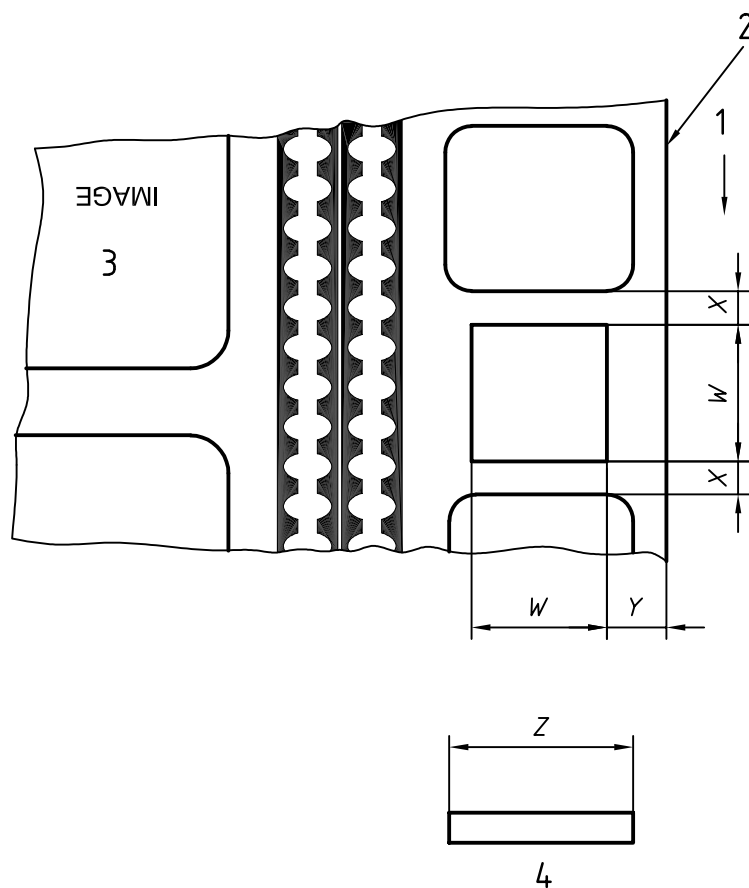
**Key**

- 1 Direction of travel
- 2 Reference edge
- 3 Image
- 4 Scanning area

**Figure 2 — Analogue area**

**Table 1 — SVA print dimensions**

Dimension	mm	in
$A_{ref}$	5,21	0,205
$B$	$6,05 \pm 0,05$	$0,238 \pm 0,002$
$C$	$6,30 \pm 0,05$	$0,248 \pm 0,002$
$D_{ref}$	7,14	0,281
$E_{ref}$	$6,18 \pm 0,03$	$0,243 \pm 0,001$
$F_{ref}$	0,05	0,002
$G_{max}$	2,13	0,084
Channel 1 Lt Track Centre: 0,264 5 in		
Channel 2 Rt Track Centre: 0,221 5 in		



- Key**
- 1 Direction of travel
  - 2 Reference edge
  - 3 Image
  - 4 Printer aperture

**Figure 3 — Type I digital sound records**

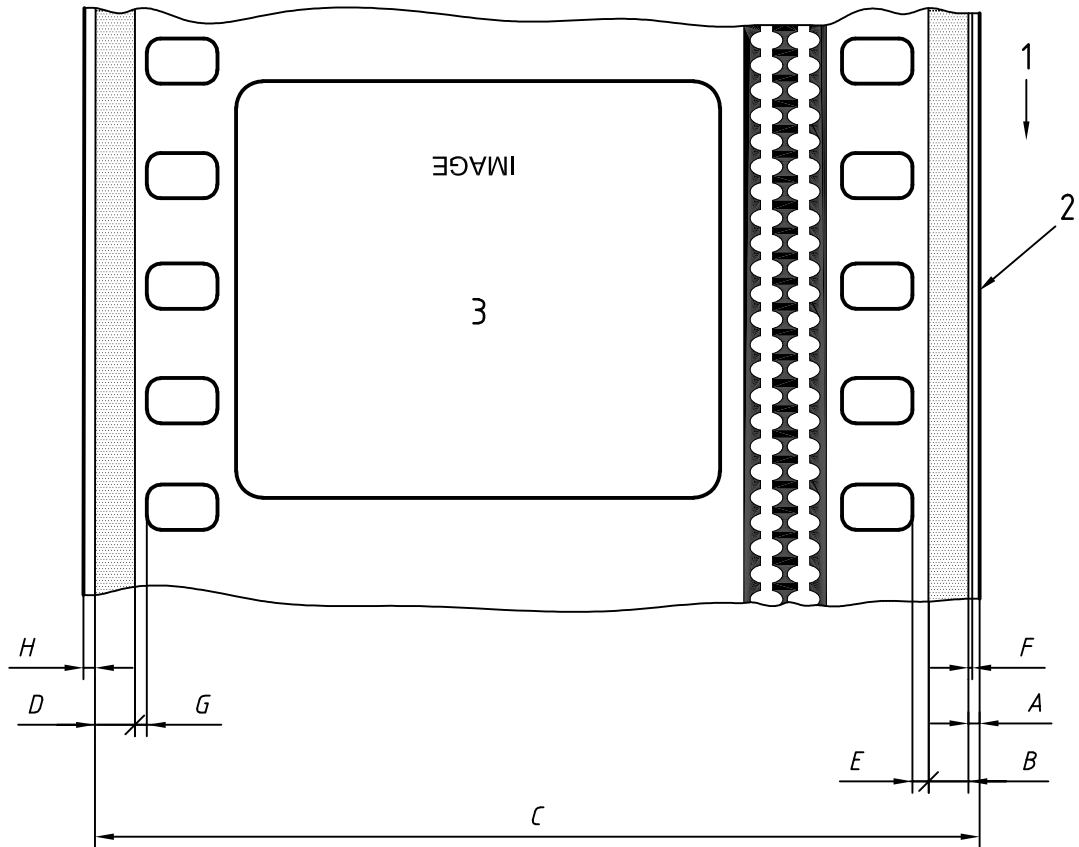
**Table 2 — Type I digital print dimensions**

Dimension	mm	in
<i>W</i>	2,41	0,095
<i>X</i>	0,160 ± 0,076 2	0,006 3 ± 0,003
<i>Y</i>	2,185 ± 0,076 2	0,086 0 ± 0,003
<i>Z</i>	2,77	0,109

**Table 3 — Type I digital negative dimensions**

Dimension	mm	in
<i>X</i>	0,160 ± 0,038 1	0,006 3 ± 0,001 5
<i>Y</i>	2,185 ± 0,038 1	0,086 0 ± 0,001 5





**Key**

- 1 Direction of travel
- 2 Reference edge
- 3 Image

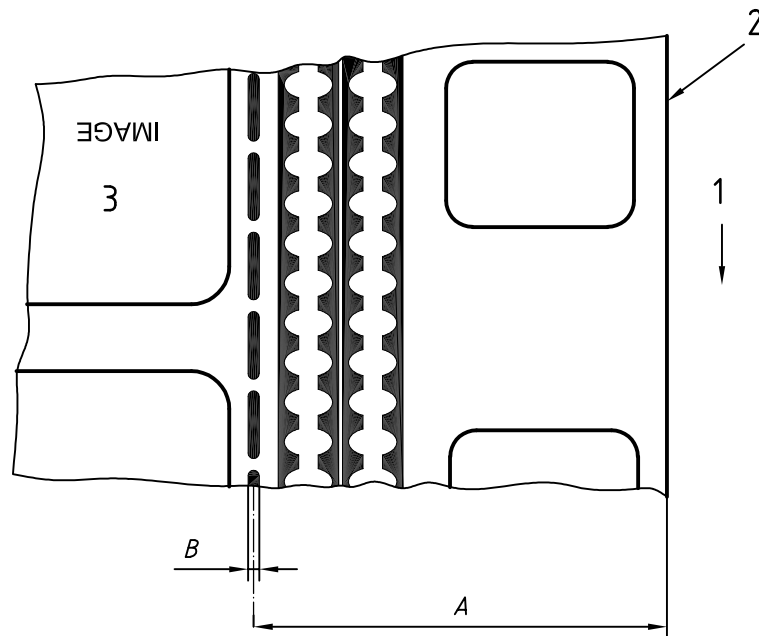
**Figure 4 — Type II digital sound records**

**Table 4 — Type II digital print dimensions**

Dimension	mm	in	Description
<i>A</i>	$0,295 \pm 0,05$	$0,011\ 61 \pm 0,002\ 0$	Reference film edge to leading edge of "white" tracking start (S)
<i>B</i>	$1,536 \pm 0,02$	$0,060\ 47 \pm 0,000\ 8$	Data and tracking area (64 spots $\times$ 24 $\mu$ m)
<i>C</i>	$34,681 \pm 0,07$	$1,365\ 39 \pm 0,002\ 8$	Reference film edge to leading edge of "white" tracking start (P)
<i>D</i>	$1,536 \pm 0,02$	$0,060\ 47 \pm 0,000\ 8$	Data and tracking area (64 spots $\times$ 24 $\mu$ m)
<i>E</i>	$0,175 \pm 0,05$	$0,006\ 89 \pm 0,002\ 0$	End of data to perforated edge margin (S)
<i>F</i>	$0,120^{+0,1}_0$	$0,004\ 72^{+0,0039}_0$	Edge margin area (S)
<i>G</i>	$0,175 \pm 0,05$	$0,006\ 89 \pm 0,002\ 0$	End of data to perforated edge margin (P)
<i>H</i>	$0,120^{+0,1}_0$	$0,004\ 72^{+0,0039}_0$	Edge margin area (P)

Table 5 — Type II digital negative dimensions

Dimension	mm	inch	Description
<i>A</i>	0,295 ± 0,02	0,011 61 ± 0,000 8	Reference film edge to leading edge of "white" tracking start (S)
<i>B</i>	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 μm)
<i>C</i>	34,681 ± 0,04	1,365 39 ± 0,001 6	Reference film edge to leading edge of "white" tracking start (P)
<i>D</i>	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 μm)
<i>E</i>	0,175 ± 0,02	0,006 89 ± 0,000 8	End of data to perforated edge margin (S)
<i>F</i>	0,120 <sup>+0,1</sup> <sub>0</sub>	0,004 72 <sup>+0,0039</sup> <sub>0</sub>	Edge margin area (S)
<i>G</i>	0,175 ± 0,02	0,006 89 ± 0,000 8	End of data to perforated edge margin (P)
<i>H</i>	0,120 <sup>+0,1</sup> <sub>0</sub>	0,004 72 <sup>+0,0039</sup> <sub>0</sub>	Edge margin area (P)



- Key**
- 1 Direction of travel
  - 2 Reference edge
  - 3 Image

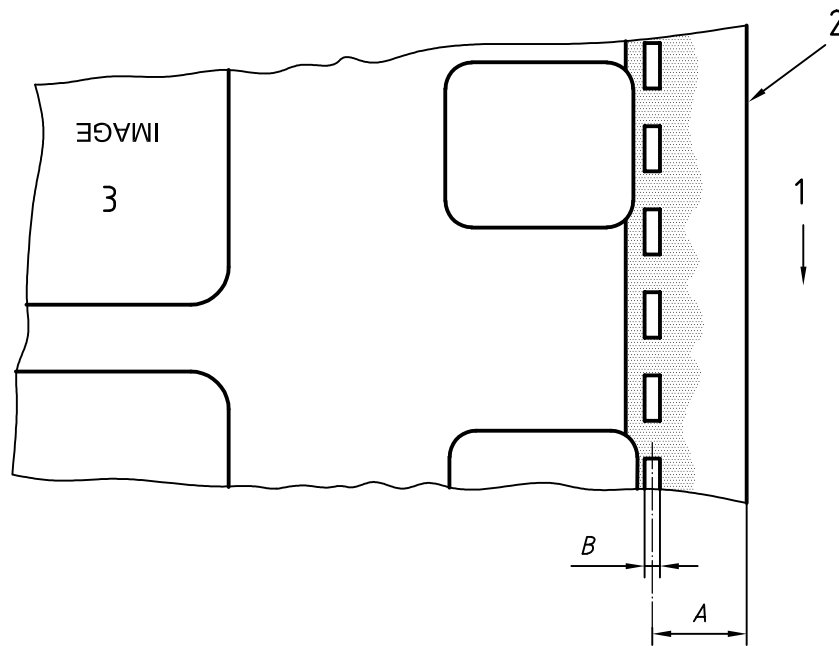
Figure 5 — Type III digital control track

Table 6 — Type III digital print dimensions

Dimension	mm	in
<i>A</i>	7,584 4 ± 0,05	0,298 6 ± 0,002
<i>B</i>	0,076 2 to 0,203 2	0,003 to 0,008

Table 7 — Type III digital negative dimensions, 35 mm

Dimension	mm	inch
<i>A</i>	$7,584\ 4 \pm 0,012\ 7$	$0,298\ 6 \pm 0,000\ 5$
<i>B</i>	0,076 2 to 0,203 2	0,003 to 0,008

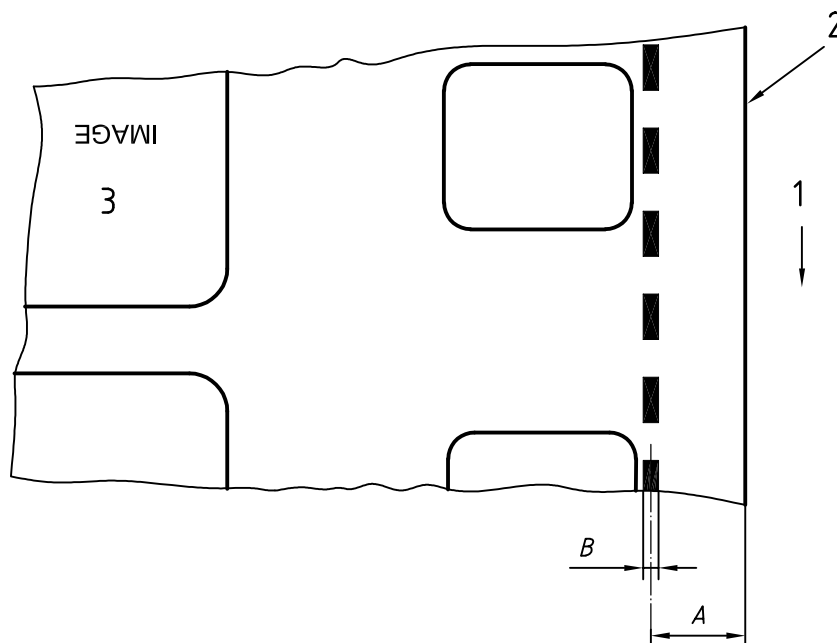
**Key**

- 1 Direction of travel
- 2 Reference edge
- 3 Image

Figure 6 — Type III 70 mm control track-print

Table 8 — Type III digital print dimensions, 70 mm

Dimension	mm	in
<i>A</i>	$4,953 \pm 0,05$	$0,195\ 0 \pm 0,002$
<i>B</i>	$0,762 \pm 0,13$	$0,030 \pm 0,005$



**Key**

- 1 Direction of travel
- 2 Reference edge
- 3 Image

**Figure 7 — Type III 35 mm control track for 70 mm printing**

**Table 9 — Type III digital negative dimensions**

Dimension	mm	in
<i>A</i>	1,498 6 ± 0,05	0,059 0 ± 0,002
<i>B</i>	0,762 ± 0,1	0,030 ± 0,004

## Bibliography

- [1] ISO 7343:1993, *Cinematography — Two-track photographic sound records on 35 mm motion-picture points — Positions and width dimensions*

**ISO 17266:2002(E)**

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