INTERNATIONAL STANDARD

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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

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.ch
Web www.iso.ch

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Foreword

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

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.

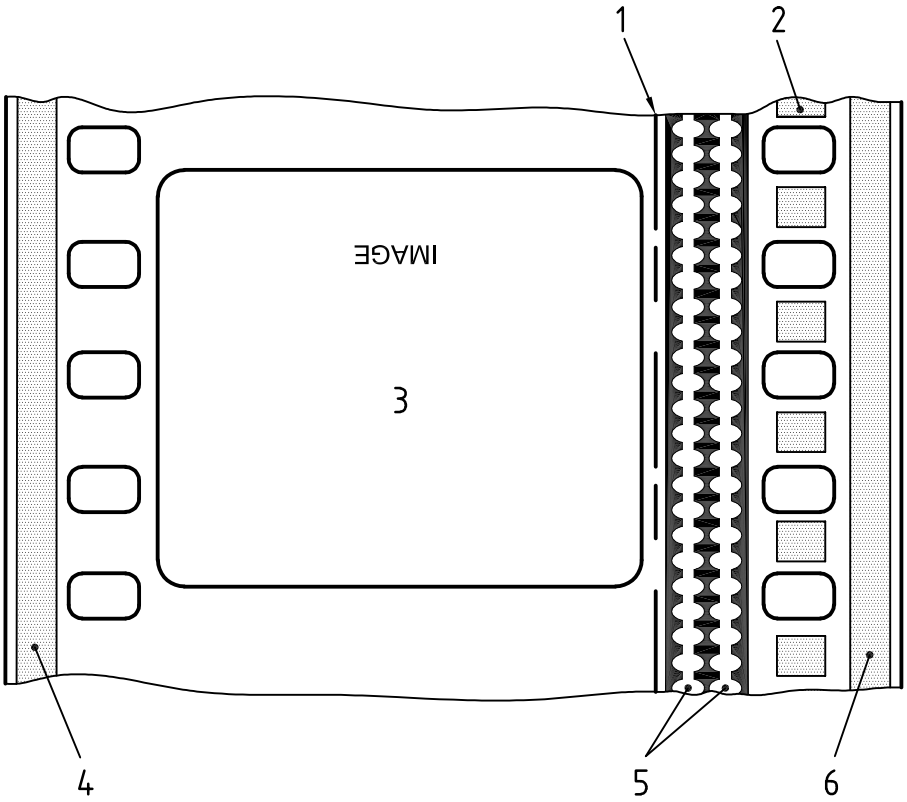
2.10 The positions and dimensions of the type III digital control track for 35 mm negative film for the printing of 70 mm positive print film shall be as shown in Figure 7 and given in Table 9.

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° ± 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

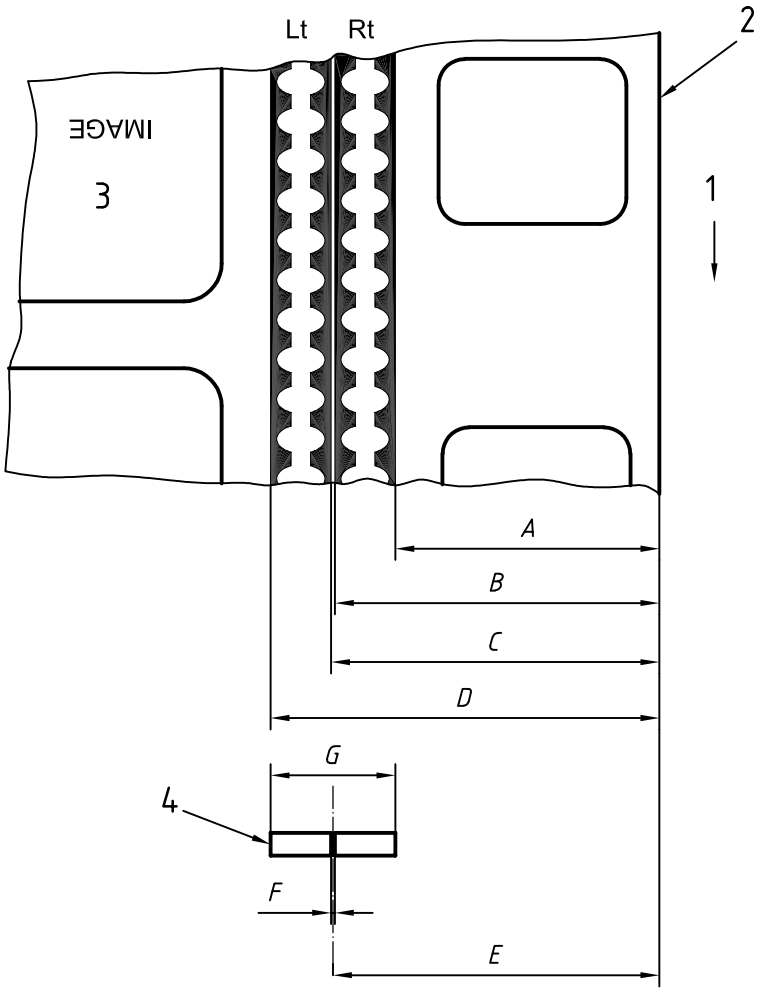
NOTE

Type I: Interperforation — digital

Type II: Outerperforation — digital

Type III: Control track

Figure 1 — Composite audio data track and control placement



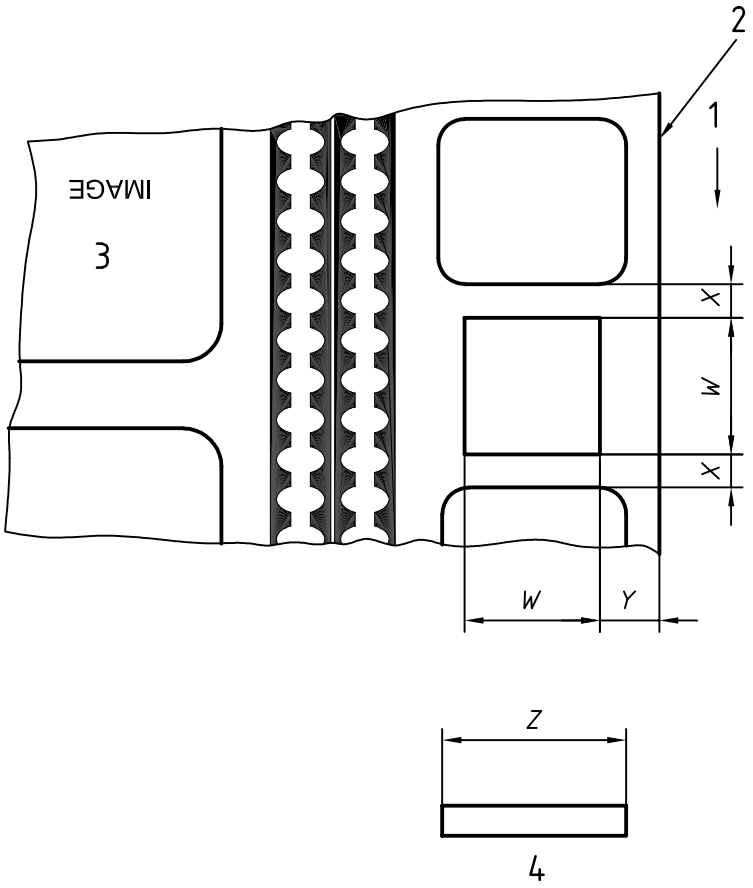
Key

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 ± 0,05	0,238 ± 0,002
C	6,30 ± 0,05	0,248 ± 0,002
D_{ref}	7,14	0,281
E_{ref}	6,18 ± 0,03	0,243 ± 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

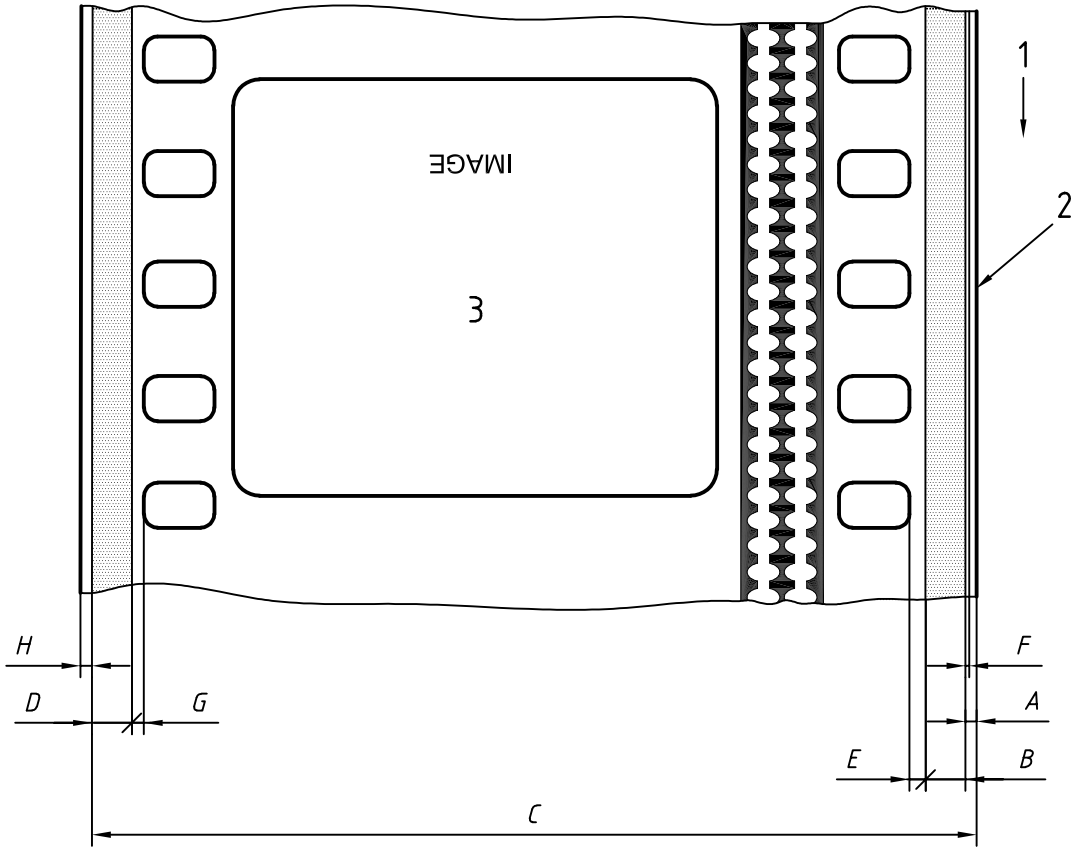
Figure 3 — Type I digital sound records

Table 2 — Type I digital print dimensions

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

Table 3 — Type I digital negative dimensions

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



Key

1 Direction of travel
2 Reference edge
3 Image

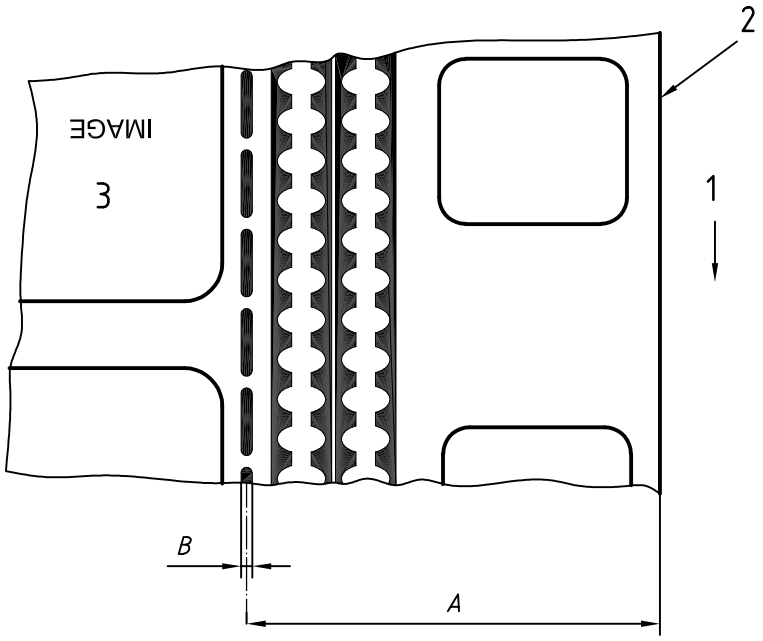
Figure 4 — Type II digital sound records

Table 4 — Type II digital print dimensions

Dimension	mm	in	Description
A	0,295 ± 0,05	0,011 61 ± 0,002 0	Reference film edge to leading edge of "white" tracking start (S)
B	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 µm)
C	34,681 ± 0,07	1,365 39 ± 0,002 8	Reference film edge to leading edge of "white" tracking start (P)
D	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 µm)
E	0,175 ± 0,05	0,006 89 ± 0,002 0	End of data to perforated edge margin (S)
F	$0{,}120\,^{+0,1}_{0}$	$0{,}004\,72\,^{+0{,}003\,9}_{0}$	Edge margin area (S)
G	0,175 ± 0,05	0,006 89 ± 0,002 0	End of data to perforated edge margin (P)
H	$0{,}120\,^{+0,1}_{0}$	$0{,}004\,72\,^{+0{,}003\,9}_{0}$	Edge margin area (P)

Table 5 — Type II digital negative dimensions

Dimension	mm	inch	Description
A	0,295 ± 0,02	0,011 61 ± 0,000 8	Reference film edge to leading edge of "white" tracking start (S)
B	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 µm)
C	34,681 ± 0,04	1,365 39 ± 0,001 6	Reference film edge to leading edge of "white" tracking start (P)
D	1,536 ± 0,02	0,060 47 ± 0,000 8	Data and tracking area (64 spots × 24 µm)
E	0,175 ± 0,02	0,006 89 ± 0,000 8	End of data to perforated edge margin (S)
F	$0{,}120\,^{+0{,}1}_{0}$	$0{,}004\,72\,^{+0{,}003\,9}_{0}$	Edge margin area (S)
G	0,175 ± 0,02	0,006 89 ± 0,000 8	End of data to perforated edge margin (P)
H	$0{,}120\,^{+0{,}1}_{0}$	$0{,}004\,72\,^{+0{,}003\,9}_{0}$	Edge margin area (P)



Key

1 Direction of travel
2 Reference edge
3 Image

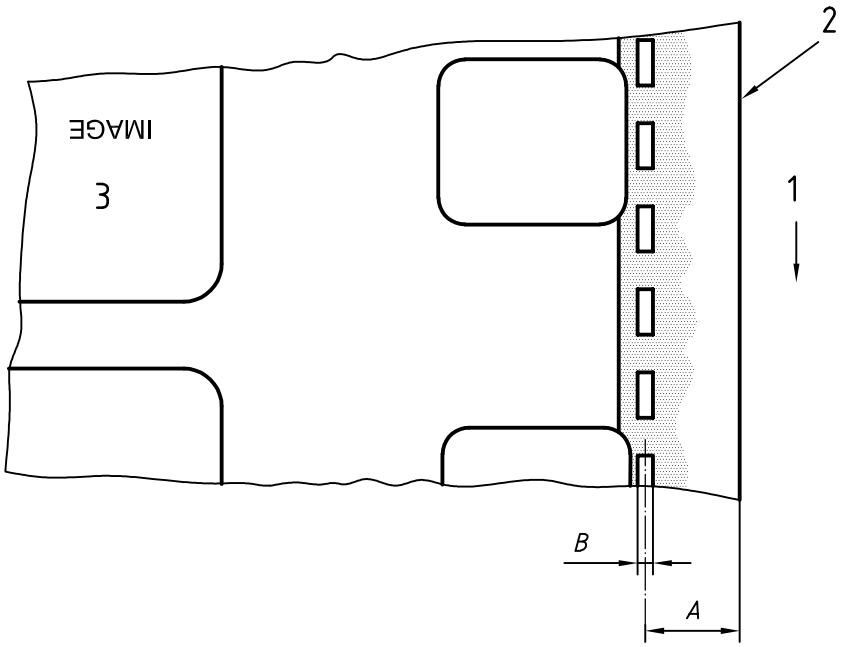
Figure 5 — Type III digital control track

Table 6 — Type III digital print dimensions

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

Table 7 — Type III digital negative dimensions, 35 mm

Dimension	mm	inch
A	7,584 4 ± 0,012 7	0,298 6 ± 0,000 5
B	0,076 2 to 0,203 2	0,003 to 0,008



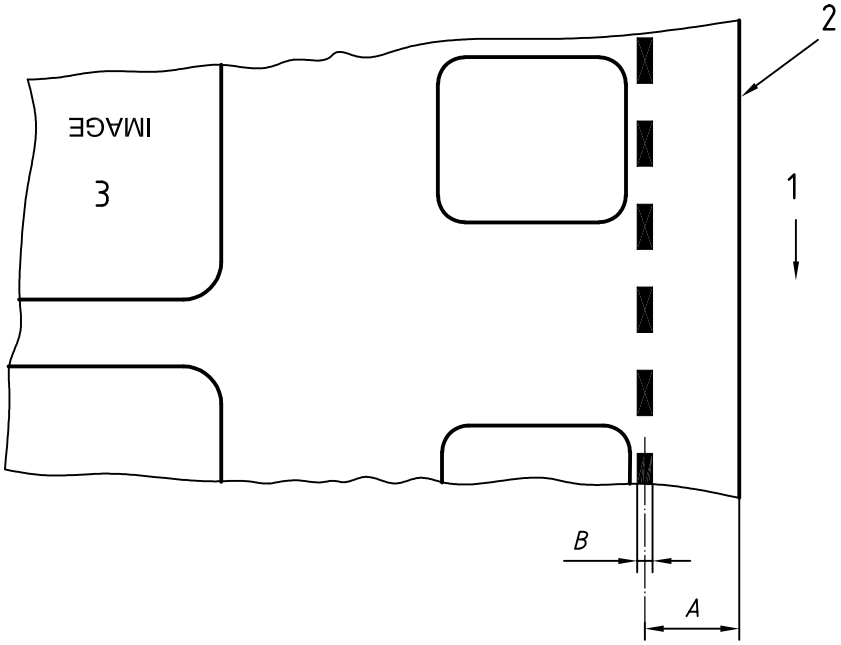
Key

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
A	4,953 ± 0,05	0,195 0 ± 0,002
B	0,762 ± 0,13	0,030 ± 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
A	1,498 6 ± 0,05	0,059 0 ± 0,002
B	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*

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