



## STANDARD ST.7/A

### 8-UP APERTURE CARD MICROFORM

*Editorial Note by the International Bureau*

The microform technology covered by the series of WIPO Standards [ST.7](#), ST.7/A, [ST.7/B](#), [ST.7/C](#), [ST.7/D](#), [ST.7/E](#), and [ST.7/F](#) has been replaced with new IT products (e.g., CD-ROM, DVD, etc.) since these Standards were first adopted during the 1980's. Therefore, due to the very limited use of this media by industrial property offices, no further review of these Standards has been carried out since the year 2000 (e.g., according to the decisions by the SCIT Standards and Documentation Working Group, at its second session, on December 6, 2002, Standard ST.7/A was not updated to incorporate revision to Standard [ST.6](#); according to the decisions by the SCIT Standards and Documentation Working Group, at its fourth session, on January 30, 2004, Standards ST.7/A and [ST.7/E](#) were not updated to incorporate revision to Standard [ST.8](#)). It is not expected that any additional offices will be providing data on this media in the future. (See paragraph 51 of document SCIT/SDWG/8/14.)



## STANDARD ST.7/A

### 8-UP APERTURE CARD MICROFORM

*Revision adopted by the PCIPI Executive Coordination Committee  
at its twenty-second session on May 28, 1998*

#### PHYSICAL REQUIREMENTS

1. A unit document record microform for exchange between Patent Offices shall be a punched card of 80-column size having an aperture containing a space for eight images (8-up aperture card).
2. For documents of more than eight pages, trailer cards in the form of 8-up aperture cards shall be used.
3. The dimensions of the punched card shall be according to the Appendix and correspond to the normally available tabulating cards, i.e., 82.55 x 187.33 mm (3.250" x 7.375").
4. The rectangular hole in the card (aperture) shall include the image area rectangle and be within the build-up area rectangle as shown in the Appendix.
5. The build-up area rectangle shall be positioned with reference to the locating edges of the card as follows:
  - (i) from the face upper edge of the card to the upper edge of the build-up area rectangle: 14.35 mm (0.565");
  - (ii) from the face lower edge of the card to the lower edge of the build-up area rectangle: 14.35 mm (0.565");
  - (iii) from the face right-hand edge of the card to the right-hand edge of the build-up area rectangle: 11.53 mm (0.454");
  - (iv) from the face right-hand edge of the card to the left-hand edge of the build-up area rectangle: 67.46 mm (2.656").
6. The image area rectangle shall be positioned with reference to the locating edges of the card as follows:
  - (i) from the face upper edge of the card to the upper edge of the image area rectangle: 26.06 mm (1.026");
  - (ii) from the face upper edge of the card to the lower edge of the image area rectangle: 56.46 mm (2.223");
  - (iii) from the face right-hand edge of the card to the right-hand edge of the image area rectangle: 19.53 mm (0.769");
  - (iv) from the face right-hand edge of the card to the left-hand edge of the image area rectangle: 60.55 mm (2.384").
7. The image area shall be subdivided into eight image zones which are defined with relationship to the center lines of the image area, the resultant eight image zones each measuring 15.19 mm (0.598") by 10.13 mm (0.399") (see the Appendix).
8. Each image shall be positioned within a zone, as defined above, so that the point of the intersection of the diagonals of the image overlays the center of the image zone; the center of the image zone is the point defined by the intersection of the diagonals of the image zone.
9. The photographic reduction ratio shall be such as to reasonably fill the image zone space as defined above.
10. The numbering to be used for the eight image zones in the aperture card shall be in Roman numerals, in two horizontal rows of four images numbered from left to right, the upper row from I to IV and the lower row from V to VIII.



## PUNCH FIELDS

11. This part of the recommendation is subdivided into three subheadings, namely:

- punch fields reserved for obligatory punching;
- punch fields reserved for optional punching;
- punch fields reserved for free punching.

For the purposes of this recommendation, the following definitions are given:

- *Obligatory punching* means that the *issuing Office* must record on the aperture card (first card and trailer cards) by punching the data specified in paragraphs 12 and 13.
- *Optional punching* means that either the issuing Office or the receiving Office may optionally punch the data specified in paragraph 15.
- *Free punching* means that the *receiving Office* only is allowed to punch data, the nature of which being left to its discretion.

### *Punch fields reserved for obligatory punching*

12. The following punch fields are reserved for obligatory punching of the data to be recorded on the aperture cards:

(a) *Columns 1 to 10, 22 and 23 for document identification data:*

- Columns 1 and 2, kind of document (Recommended Standard Code for the Identification of Different Kinds of Patent Documents, WIPO Standard [ST.16](#));
- Column 3, reserved;
- Columns 4 to 10, number of document (unit digit to be recorded in column 10);
- Columns 22 and 23, identification of country of issue or publication of document (Two-letter Country Code, WIPO Standard [ST.3](#)).

(b) *Columns 11 to 14 for identification of a card or cards:*

- Columns 11 and 12, identification of the number of the card in a series of cards referring to one document;
- Columns 13 and 14, identification of the total number of cards in the series.

Unit digits to be recorded in columns 12 and 14, respectively.

13. The following punch fields are reserved for *obligatory punching of the Int. Cl. Symbols*:

- Columns 24 to 35, Int. Cl. symbols in accordance with the standard recording of the symbols of the International Patent Classification on machine-readable records (WIPO Standard [ST.8](#)).

14. It is impossible to reserve sufficient punch fields to indicate both the national and international classifications with respect to a document. The International Patent Classification should be given to the extent that it is used by the issuing Offices, that is, to the extent that the elaboration of the Int. Cl. is applied by that Office to the document. Within these limits, the punching of this information is obligatory.

### *Punch fields reserved for optional punching*

15. The following punch fields are reserved for optional punching of the data defined as follows:

(a) Column 15, indication of the number of images in the image zone;

(b) Columns 16 to 21, date of publication of the document. Within these limits, columns 16 and 17 are reserved for the day, columns 18 and 19 for the month and columns 20 and 21 for the year (unit digit of day, month and year to be recorded in columns 17, 19 and 21, respectively);



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(c) Columns 78, 79 and 80 are reserved for recording additional information, e.g., for distribution of cards. For facilitating searching with aperture cards, columns 79 and 80 shall be left blank by the issuing Office upon express request by a receiving Office.

### *Punch fields reserved for free punching*

16. Columns 36 to 52 shall be left blank by the issuing Office for free punching by the receiving Office, except upon express request by a receiving Office.

17. Columns 53 to 77 (image area) shall be left free from any punching.

### *Alternative set of punch fields*

18. The distribution of the punch fields (digits) provided for in previous paragraphs of this Standard reflects the aperture card production up to the adoption of the revised Standard. In the view of the revisions of WIPO Standards [ST.2](#), [ST.6](#), [ST.8](#) and [ST.13](#), the following distribution of digits is recommended for a continued production of aperture cards:

Column(s)	
1–2	Kind-of-document code according to WIPO Standard <a href="#">ST.16</a>
3	Reserved
4–15	document number according to WIPO Standard <a href="#">ST.6</a> (or <a href="#">ST.13</a> if application numbers are used as publication numbers)
16–17	number of the card in series
18–19	total number of cards in the series
20	number of images in the image zone
21–28	publication date according to WIPO Standard <a href="#">ST.2</a>
29–30	country of issue (two-letter code according to WIPO Standard <a href="#">ST.3</a> )
31–48	IPC main class symbol according to WIPO Standard <a href="#">ST.8</a>
49–52	free punching

19. As a consequence of amending the punch fields to indicate the document number, the publication date and the symbols of the International Patent Classification, columns 36 to 52 of the punch fields reserved for free punching by the receiving office will be reduced to columns 49 to 52.

20. Offices issuing 8-up aperture cards should inform their exchange partners well in advance of any changes in the use of punch fields for the recording of certain data.

### IDENTIFICATION OF DATA IN PRINT ON APERTURE CARDS

21. All data punched into a first card and all obligatory data of the trailer cards shall be identified in print on the card. Such interpretation must follow the same sequence as the punched columns.

### IMAGE RESOLUTION

22. The image quality for dissemination of 8-up aperture cards shall be at least a “q” value of 8.

23. The resolution required to copy type depends upon the size of type, the reduction ratio, and the quality of reproduction required. For most practical purposes: “R”, the resolving power in lines per millimeter; “e”, the height in millimeters of the lower case “e” in the type to be copied; “r”, the reduction ratio; and “q”, an arbitrary “quality index,” are related by the following equation:

$$R = \frac{qr}{e}$$



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For excellent copy, in which the details of type are clearly defined, *q* must be 8 or more. If *q* is assigned a value of 5, the copy may be read without difficulty although serifs and fine details of type are not clear. If *q* is 3, the copy may be read with difficulty, the letters "e", "c" and "o" being partly closed.

*Note:* It is recognized that the recommendation may not be valid for oriental characters and that the special problems presented by such characters are best dealt with by the Offices filming such characters.

### IMAGE DENSITY

24. The microfilm in exchange aperture cards shall have a contrast in *density* between the text material and the background greater than 1.0 density units and the minimum density should be no greater than 0.15 density units above the ultimate minimum density possible for the particular film used.

*Notes:* A practical means of obtaining a value commensurate with the contrast referred to above is to measure the diffuse transmission density (using a green Wratten filter No. 93 in the case of diazo film) of images of 90% and 6% reflectance targets in the film to be used and to determine the difference between their values in density units.

A practical means of obtaining a value of the ultimate minimum density referred to is to overexpose the film to be used and to measure the resulting density.

A practical means of determining, for film copying equipment, the range of exposure times which will result in values of minimum density within the recommendation is to expose the film successively with diminishing exposure times.

Within the range of exposure times, thus determined, only such times should be used as a result in contrast values greater than 1.0 density units.

### PARITY

25. (i) Off generation aperture cards should be identified by a left-corner cut;
- (ii) Even generation aperture cards should be identified by a right-corner cut;
- (iii) Image orientation in the aperture card should be such that the image should be right-reading when viewing the face of the card.

[Appendix follows]

