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COMMITTEE
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(+Annexes I and II)
O. Eng.

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# CLASSIFICATION OF MULTIFUNCTIONAL DIGITAL COPIERS

(Item VIII.4 on Agenda)

Reference documents :

42.406 (RSC/18)
42.498 (RSC/18)
42.500, Annex B/19 (RSC/18 – Report)
42.750, Annex E (HSC/22 – Report)
NR0023E1 (RSC/19)
NR0037E1 (RSC/19)
NC0090E2, Annex IJ/26 (HSC/23 – Report)
NC0160E2, Annex H/14 (HSC/24 – Report)
NC0211E1 (HSC/25)
NC0250E2, Annex H/13 (HSC/25 – Report)
NC0300E1 (HSC/26)
NC0335E1 (HSC/26)

## I. BACKGROUND

1. On 4 April 2001, the Secretariat received the following note from the Japanese Administration on the classification of multifunctional digital copiers.

## II. NOTE FROM THE JAPANESE ADMINISTRATION

### Classification of Digital Multifunction Machines

2. Advances in digital and network technology have given birth to a global age in communications. The age of network communications requires development and sales of business machines that can operate in a network environment and interface with computers. Digital Multifunction (DMF) machines have been developed and marketed as products that respond to these market needs of networking requirements. DMF machines do have such a new concept quite different from traditional machines, known as photocopiers, creating a new market where manufacturers emphasize the marketability of their printer functions as part of PC output devices. Given this market background of the machines, DMF machines should be not classified under HS heading 90.09, but classified under heading 84.71 for the reasons explained below.

File No. 2755

DMF machines are not classified under heading 90.09.

3. The Explanatory Note to heading 90.09 reads as follows : “An optical system projects the optical image of an original document on to a light-sensitive surface.” That means the optical image of an original document is directly projected on the light-sensitive surface. In other words, this must be interpreted as meaning that it is projected as an optical image without being changed in any way.

4. A photocopying apparatus directly projects an optical analog image of an original document on the light-sensitive surface. In contrast, when limiting comments to the creation of copies, a DMF machine uses a CCD to read an optical image of an original document and converts the image into electrical signals, after which those electrical signals are reconverted into a laser digital image which differs substantially from an optical image of the document. (See Annex I).

5. Photographic cameras function like photocopiers in directly projecting an optical analog image of the object on a light-sensitive surface (film) and are thus classified under heading 90.06. In contrast, still image video cameras function like DMF machines in using a CCD to read an optical image of the object and convert it into electrical signals, after which the electrical signals are reconverted into a digital image which differs substantially from an original image of the object. For this reason it can be classified under subheading 8525.40.

6. A photocopying apparatus requires one scanning of the optical image of the original document for one copy. On the other hand, the DMF machine requires only a single scanning of the optical image of the original document, regardless the number of copies made. In other words, copies of an original document are produced from the digital data which have been electronically stored in the image data storage device in the controller by a single scanning of the optical image of the original document, thus eliminating the need to scan an optical image of the original document for each of the copy sheets made, which analog photocopying apparatus of heading 90.09 requires.

7. Therefore the DMF machine should not be classified in heading 90.09.

DMF machines should be classified in heading 84.71

8. DMF machines are developed using the basic design of printer as their principal function. Subsequently, other additional functions such as scanner, copier and fax are integrated with the printer that forms the nucleus of DMF machines.

9. Given the market requirements for printers to produce larger volume of output compared to traditional machines known as photocopiers, the typical model of DMF machines (40 ppm class) are designed as roughly 2.5 times as durable as photocopiers.

10. The machine is composed of three components: scanner, controller/printer and fax. Among them, the controller/printer is the main component. The cost breakdown ratio of the components of a typical DMF machine is, controller/printer (54 %), scanner (28 %), fax (18 %). This cost breakdown ratio of the components is very similar to those of the other DMF machines.

11. Of the three components, the controller/printer is always and commonly used in the output process of DMF machines (printing, copying and fax-receiving).

12. Sales brochures and materials also emphasize printer function as the main attractiveness.

13. Therefore the DMF machine should be classified in heading 84.71 as the output unit of the ADP machine.

## III. CONCLUSION

14. The Committee is invited to take into account the note from the Japanese Administration when it examines this agenda item.

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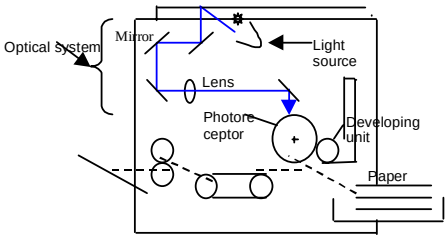
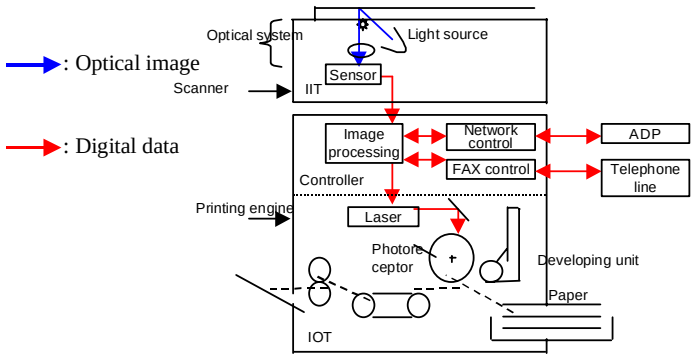
Material 1:Graphic representation of analog copier and the DMF machine

**Light-Lens Copier**




**Digital Multifunctional Machine**




| • **Copier of Heading 9009 Incorporating Optical System** | **Digital Multifunction Machines(DMF Machines)** |
|---|---|
| 1.The printed material is scanned to create an optical image. | 1. The printed material is scanned to create an optical image. |
| 2.The image is **directly** projected on to the photoreceptor. | 2.a) The DMF Machines' controller **converts** the optical image to **digital data**<br>b) The controller transmits the digital data to the printer engine to **recreate** the printed image on to the photoreceptor. |
| . | 3. a) The DMF Machines are connected with ADP Machines.<br>b) The DMF Machines are connected with Telephone Line. |
| 3. The image is developed on the photoreceptor and copied on the paper . | 4. The image is created point by point on the photoreceptor and printed on on the paper . |

Material 2:Graphic representation of the DMF machine according to modules

Printer module is the base of all the functions of DMF Machine