
**Information technology — Office
equipment — Method for measuring
digital copying productivity for a
single one-sided original**

*Technologies de l'information — Équipement de bureau — Méthode
de mesure de la productivité du copiage numérique d'un simple
original une face*

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 28, *Office equipment*.

This second edition cancels and replaces the first edition (ISO/IEC 29183:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- “Terms and definitions” clause has been modified to add new definitions and removed definitions of terms not used in the text;
- annex structure was changed to be consistent with other productivity standards;
- added “ready delay time” requirement to “test measurement” procedures;
- added [Annex D](#) for the procedure to determine the “ready delay time”;
- added *sFCOT* from sleep, *sFCOT* from sleep after 15 min, and *sFCOT* from off tests and reporting;
- added minimum declaration examples to [Annex A](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

Many digital copying devices produce copied pages at a different rate than their nominal speed when running with different quality modes, different substrate grammage, different job content and job lengths. The degree to which a change in productivity is experienced depends significantly on other parameters of the job stream. The most dominant of the parameters of the job stream are: (image quality modes selected, job content, B&W and colour reproduction job stream, run length). The existing International Standard (ISO/IEC 24735) only addresses the productivity issues for digital copying devices when using both collation and an ADF (automatic document feeder) and cannot be used for a single one sided original.

This document provides a general method for measuring productivity when the above-mentioned job stream parameters for digital copying devices are taken into consideration. This document also includes instructions for the creation of test charts. It allows manufacturers and buyers of digital copying devices to describe the productivity of various digital copying devices with respect to representative office usage.

Information technology — Office equipment — Method for measuring digital copying productivity for a single one-sided original

1 Scope

This document specifies a method for measuring productivity of digital copying devices and multifunctional devices with various copying modes and a single one-sided original. The document is applicable to digital copying devices and multifunctional devices. The document is intended to be used for black and white (B&W) as well as colour digital copying devices and multifunctional devices of any underlying marking technology. This document includes instructions for the creation of test charts, test setup procedure, test procedure, and the reporting requirements for the digital copying productivity measurements.

This document is not intended to replace manufacturer's rated speeds.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 536, *Paper and board — Determination of grammage*

ISO 2470-1, *Paper, board and pulps — Measurement of diffuse blue reflectance factor — Part 1: Indoor daylight conditions (ISO brightness)*

ISO/IEC 24734, *Information technology — Office equipment — Method for measuring digital printing productivity*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 24734 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

sEFTP

effective throughput

rate at which a device produces pages measured from the initiation of the job through the complete exit of the last *test set* (3.11)

Note 1 to entry: "s" denotes that a single one sided original is used for the measurement.

Note 2 to entry: *sEFTP* is expressed in images per minute (ipm). *sEFTP* can be affected by scan time, digital processing time, and maintenance as well as the run time of the test.

[SOURCE: ISO/IEC 24734:2021, 3.6, modified — The term "EFTP" has been replaced by "sEFTP" and Note 1 to entry has been added.]