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ANSI X9.100-30–2011(R2017)

Formerly part of X9.7 - 1999 (R2007)

Optical Background Measurement for MICR Documents



Developed by
Accredited Standards Committee X9, Incorporated
Financial Industry Standards

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Foreword

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Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

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Introduction

NOTE: The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights.

By publication of this standard, no position is taken with respect to the validity of this claim or of any patent rights in connection therewith. The patent holder has, however, filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license. Details may be obtained from the standards developer.

It has been approximately eighteen years since the first publication of this standard as ANS X9.7 including its Annexes which provide for the optical measurement methodologies of reflectance and PCS. New commercial technologies for printing checks have emerged over that time period. In addition to the older technologies of letterpress, offset lithography and impact printing, newer technologies involving non-impact printing based on electro-photography, electron beam imaging printing, and thermal transfer printing are currently used to print checks or selected fields on checks.

Furthermore, a change is well underway to expand the use of an electronic check image in place of the paper check that then can be truncated as early as possible in the payment cycle. Electronic imaging of checks places new requirements on the design of checks and the measurement of reflectance, Print Contrast Signal (PCS), and Dynamic Contrast Ratio (DCR) so that they are readily legible when viewing the image of a document rather than the document itself. Checks properly designed for imaging assure that all vital information will be captured by the imaging process, that the images will be usable and legible, and that the file sizes of images will be low enough so that they can be stored and moved in a cost efficient manner._

This standard which separates the measurement methods from the actual specification values is the result of an extensive cooperative effort by representatives from financial institutions, check printers, business form manufacturers, software suppliers, and manufacturers of various types of processing and test equipment for the financial industry.

Suggestions for the improvement or revision of this Standard are welcome. They should be sent to the X9 Committee Secretariat, Accredited Standards Committee X9, Inc., Financial Industry Standards, 275 West Street, Suite 107 Annapolis, MD 21401 USA.

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Special recognition is given to Mr. Brian Salway, Symcor, for editing/updating of the technical illustrations throughout this document.

This document cancels and replaces ANS X9.7-1999 (R2007) in part. The optical specifications covered in this standard, X9.100-30, were carved out of the predecessor standard to allow pairing of this standard with documents other than Checks. ANSI X9.100-110 will cover specific check areas of interest and image compatibility.

This is a preview of "ANSI X9.100-30-2011 ...". [Click here](#) to purchase the full version from the ANSI store.

Optical Measurement Specifications for MICR Documents

1 Scope

The scope of the standard is the specification of the optical measurement methodology for the parameters of reflectance, PCS, DCR, Pixel Count, and opacity which are needed for MICR documents.

2 Purpose

The purpose of this standard is to provide a uniform measurement methodology for the several MICR application standards that incorporate optical measurements and specifications.

3 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the specific edition cited applies. For undated references, the most recent edition of the referenced document (including any amendments) applies.

ANSI INCITS 49:1975 (S2007), Character Set for Optical Character Recognition (OCR-B)

ANSI X9.100-10, Paper Specifications for MICR Documents

ANSI X9.100-20, Print and Test Specifications for Magnetic Ink Printing (MICR)

ANSI X9.100-110 (X9.7), Document Imaging Compatibility

ANSI X9.100-111, Physical Check Endorsements

ANSI X9.100-120, Bank Deposit Tickets

ANSI X9.100-130, Universal Interbank Batch/Bundle Tickets

ANSI X9.100-140, Specifications for an Image Replacement Document – IRD

ANSI X9.100-151, Check Correction Strips

ANSI X9.100-160-1, Magnetic Ink Printing (MICR), Part 1: Placement and Location

ANSI X9.100-160-2, Magnetic Ink Printing (MICR), Part 2: EPC Field Use

ASC X9 TR 2, Understanding, Designing and Producing Checks

ASC X9 TR 6, Guide to Quality MICR Printing and Evaluations

ASC X9 TR 8, Check Security

TAPPI T425, Opacity of Paper (15/d geometry, Illuminant A/2°, 89% Reflectance Backing and Paper Backing)

CIE 017.4–1987, *“International Lighting Vocabulary,”* Bureau Central, International Commission on Illumination, Vienna, Austria.