ANSI MH10.8.12:2011
(a revision of CEA/EIA-706)

American National Standard for Material Handling - Component marking

Scope:

This standard specifies a transfer structure, syntax, and coding of messages and data formats when using high capacity ADC media between trading partners, specifically between suppliers and recipients, and where applicable, in support of carrier applications, such as bills of lading and carrier sortation and tracking.

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American National Standard

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American National Standard for Material Handling - Component marking

Material Handling Industry (MHI)

Approved December 14, 2011
American National Standards Institute, Inc.

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Foreword

This standard preserves the work of earlier standards development, while at the same time provides valuable insight and guidance on the direct marking of electronic components.

The original work was designated EIA-706, from the Electronics Industry Association PEPS (Packaging of Electronic Products for Shipment) R9 Bar Code Subcommittee who began working on this standard in 1993. The first edition was published 1997-06-30.

In a reorganization of EIA in 2000, the work of PEPS R9 was transferred to the Consumer Electronics Association (CEA).

Under an agreement between CEA and MH10/SC8 in April 2006, CEA-706A was transferred from CEA to MH 10/SC 8. The content of CEA 706A is incorporated into this standard.

This American National Standard now serves as the re-designation of CEA-706-A to ANSI MH10.8.12.

Introduction

The purpose of this standard is to establish a common structure for encoding data to be marked on electronic components to facilitate automation. This standard provides a means for components to be marked and read in a fixtured environment at any manufacturer's facility and be read by customers purchasing components for subsequent manufacturing operations. Intended applications include, but are not limited to:

- component traceability
- component tracking
- automated manufacturing process control
- logistics
- inventory management
- robotic assembly
- configuration management
- automated inspection and quality control
- Computer-Aided Design (CAD) engineering and automated revision control
- anti-counterfeiting systems
- automated testing

American National Standard for Material Handling - Component marking

1 Scope

This standard describes the requirements for using formatted two-dimensional machine-readable symbols for the marking of electronic components of first level assemblies.

Note: Marking of reels, tubes, and trays containing components is subject to Product Package marking. (See MH10.8.6 and ISO 22742)

2 Normative references

The following referenced documents are indispensable for the application 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.

ANSI MH10.8.2, Data Identifier and Application Identifier Standard

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions -- Part 1: Country codes*

ISO/IEC 15415, *Information technology -- Automatic identification and data capture techniques -- Bar code print quality test specification -- Two-dimensional symbols*

ISO/IEC 15434, Information technology – Automatic identification and data capture techniques – Syntax for high capacity ADC media

ISO/IEC 19762 (all parts), *Information technology -- Automatic identification and data capture (AIDC) techniques -- Harmonized vocabulary*

ISO 21067, *Packaging – Vocabulary*

ISO/IEC 16022, Information technology -- Automatic identification and data capture techniques -- Data Matrix bar code symbology specification

3 Terms and definitions

For the purposes of this document, the terms and definitions contained in ISO/IEC 19762 (all parts) and ISO 21067 apply.

4 Data content

4.1 Field length

Field length is the number of data characters in a data field. The character count of data characters is exclusive of overhead characters.