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Edition 1.0 2021-10

TECHNICAL REPORT

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Packaging of components for automatic handling – Part 3-3: Packaging of surface mount components on continuous paper tapes for Auto Loading Feeder



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING –

Part 3-3: Packaging of surface mount components on continuous paper tapes for Auto Loading Feeder

FOREWORD

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IEC TR 60286-3-3 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is a Technical Report.

The text of this Technical Report is based on the following documents:

Draft	Report on voting
40/2843/DTR	40/2865/RVDTR

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Report is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available

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at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60286 series, published under the general title *Packaging of components for automatic handling*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This Technical Report was developed by the technical committee 40 working group 36 on components packaging, in which the members, such as mounter manufacturers, component manufacturers and packaging material manufacturers, had proposed, considered and discussed the possible standardization of the application of Auto Loading Feeder to enable automatically exchange SMD continuous tapes, using paper carrier tape during mounter operation, aiming to support IEC 60286-3, Edition 6, issued in 2019.

This document includes data expressed in the form of provisions, such as requirements or recommendations. These data, however, do not claim to be provisions and are just suggested as the results of the discussion.

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of a trademark concerning Auto Loading Feeder given in 3.1.1.

- Trademark ... AUTO LOADING FEEDER™
- Trademark registration number ... No.5983611 (Japan)

IEC takes no position concerning the evidence, validity and scope of this trademark right.

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PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING –

Part 3-3: Packaging of surface mount components on continuous paper tapes for Auto Loading Feeder

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1 Scope

This part of IEC 60286 describes the possible requirements for paper taping for the Auto Loading Feeder mechanism to mount electronic components without leads or with stump type leads used for electric circuits. This document is applicable to the punched carrier tape with the bottom cover tape (nominal tape width: 8 mm only) among the tapes of Type 1a, and the pressed carrier tape (nominal tape width: 8 mm) of Type 1b in IEC 60286-3.

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.

IEC 60286-3:2019, *Packaging of components for automatic handling – Part 3: Packaging of surface mount components on continuous tapes*

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

NOTE Annex D features a Glossary of mounter and feeder related terms.

3.1.1
Auto Loading Feeder
AUTO LOADING FEEDER™
tape feeder that can keep supplying components by automatically carrying a tape of re-supplied SMD at the filling-in position into the components supply position, just after the components in the tape of previously supplied SMD are fed up during the assembly production

Note 1 to entry: Auto Loading Feeder has the mechanism that the cover tape of a SMD tape is automatically cut or peeled off to expose the pockets during the operation to supply components.

3.1.2
seal
bonding of a part of the top cover tape and a part of the carrier tape

Note 1 to entry: The top cover tapes are classified as heat welding type and adhesive type by the way to bond itself on the carrier tape.