

# Use of Unembossed Carrier Tape as Leader and Trailer

An ECIA Knowledge Document

Volume 1, Number 8

October 2018

Reaffirmed: June 2023



## NOTICE

ECIA Knowledge Documents are designed to serve the public interest through eliminating misunderstandings between manufacturers and purchasers, facilitating interchangeability and improvement of products, and assisting the purchaser in selecting and obtaining with minimum delay the proper product for his particular need. Existence of such documents shall not in any respect preclude any member or nonmember of ECIA from manufacturing or selling products not conforming to the documents, nor shall the existence of such documents preclude their voluntary use by those other than ECIA members, whether the document is to be used either domestically or internationally.

ECIA does not assume any liability to any patent owner, nor does it assume any obligation whatever to parties adopting the Document.

This Document does not purport to address all safety problems associated with its use or all applicable regulatory requirements. It is the responsibility of the user of this Document to establish appropriate safety and health practices and to determine the applicability of regulatory limitations before its use.

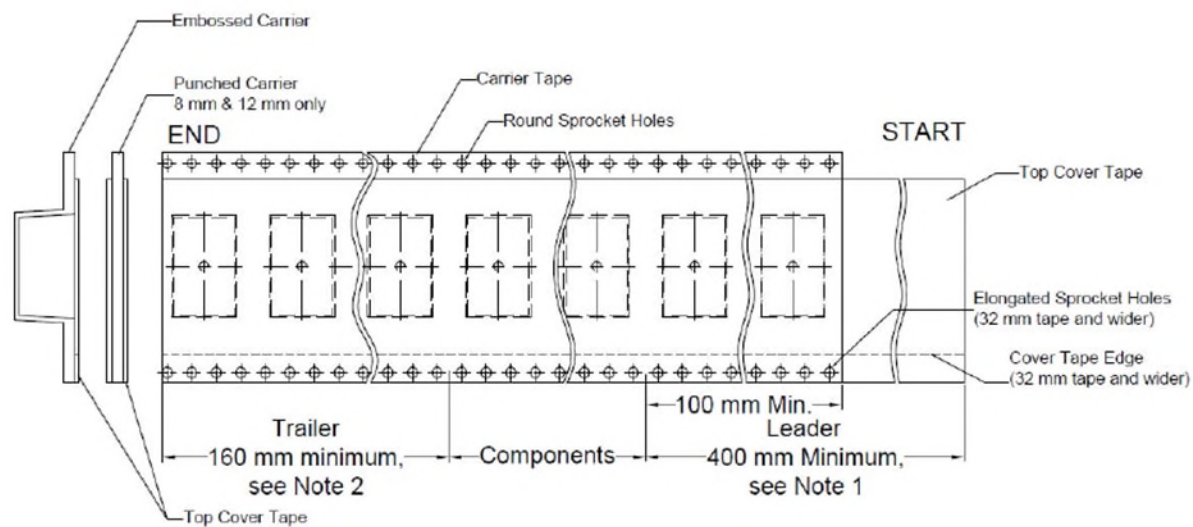
This ECIA Knowledge Document was formulated under the cognizance of the Automated Component Handling Committee.

Published by

©2023 Electronic Components Industry Association  
EIA Standards & Technology Department  
13873 Park Center Road, Suite 315  
Herndon, VA 20171

## Use of Unembossed Carrier Tape for Leader and Trailer

The leader and trailer in tape and reel packaging are the starting and ending portions of the reel that do not contain components and are used for the initial feeding of the tape into the assembly operation and to ensure that the final loaded pockets are safely transported to the assembly operation. See below for current EIA-481 Rev E standards regarding leader and trailer.



### NOTES

1. There shall be a leader of 400 mm minimum of cover tape, which includes at least 100 mm of carrier tape with empty compartments and sealed by the cover tape. All of the leader may consist of the carrier tape with empty compartments sealed by cover tape.
2. There shall be a trailer of 160 mm minimum of empty carrier tape sealed with cover tape. The entire carrier tape must release from the reel hub as the last portion of the tape unwinds from the reel without damage to the carrier tape and the remaining components in the cavities.

As order volumes have changed and cost cutting measures have been introduced over recent years, the leader and trailer has come to be seen as extra expense or as an inconvenience when users are looking to utilize tape and reel assembly systems when an entire reel of product is not required.

Some companies within the tape and reel industry have begun using unformed carrier tape in place of the traditional leader and trailer. The unformed carrier tape still complies with the dimensional requirements within the EIA-481 standard. This operation requires that the unformed carrier tape be spliced together with the standard embossed carrier tape in such a way that the sprocket hole spacing remains within the requirements of the EIA-481 standard.

Please note that splicing of any kind is not endorsed by the Electronic Components Industry Association (ECIA). Any splicing activities or use of spliced carrier tapes is done at one's own risk.

The EIA-481 standard explicitly states that the leader and trailer shall consist of empty compartments. However, at the time of inception of this document, the inclusion of unformed carrier tape was not considered. It is the opinion of this committee that the use of unembossed carrier tape can meet the initial intent of the EIA-481 standard relative to leader and trailer under the assumption that all dimensional requirements of sprocket hole alignment and spacing are still met.