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Electronics Materials Solutions Division

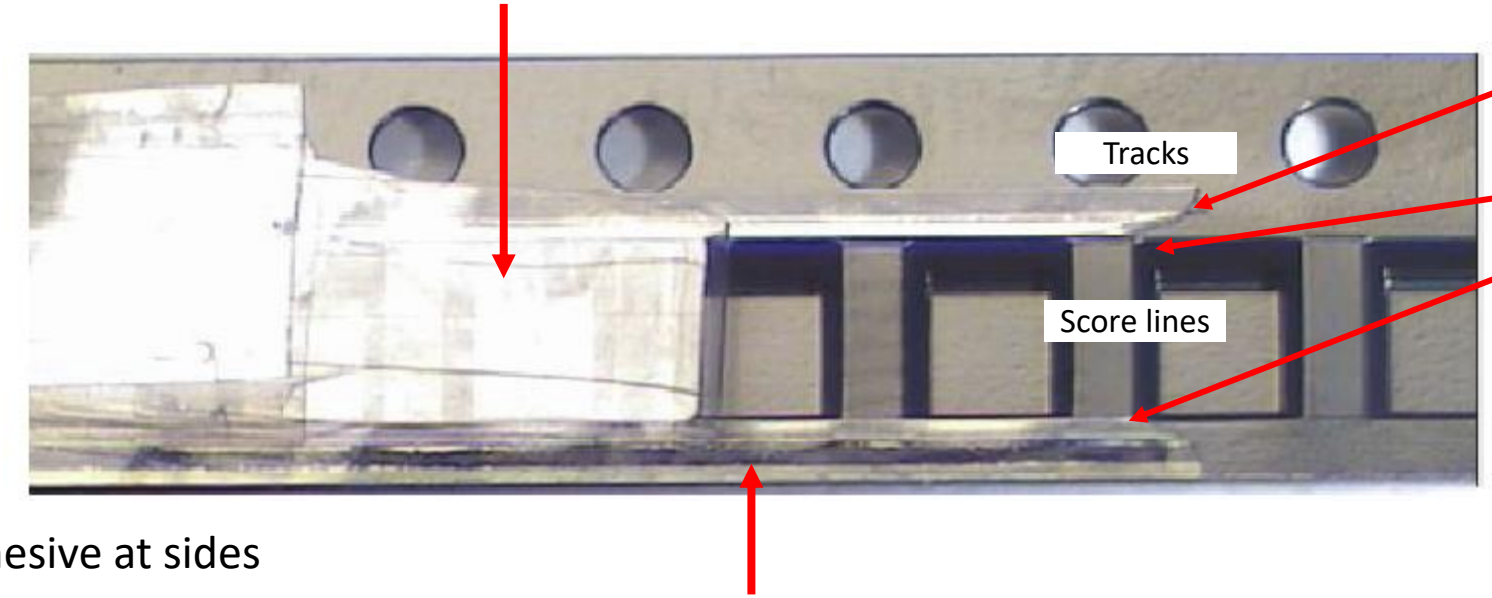
3M™ Universal Cover Tape (UCT) 2688A application procedure

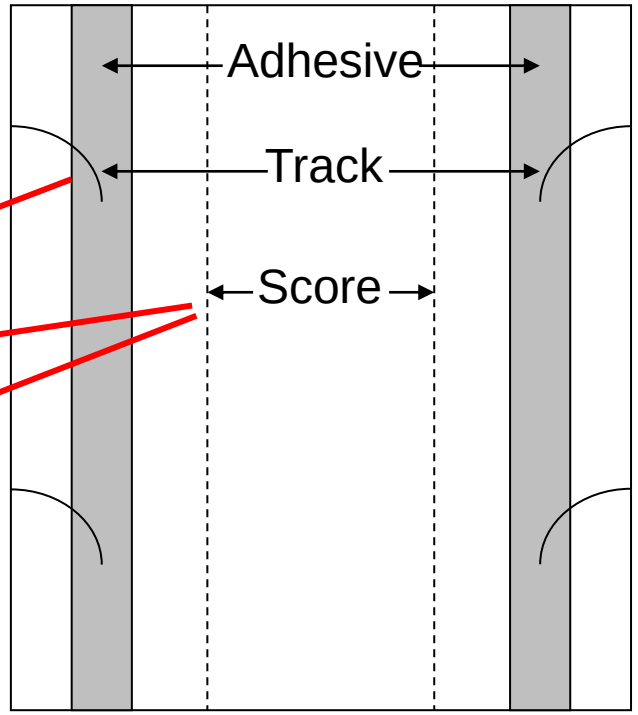
January 2019 (updated)

Peeling design and mechanism of UCT

Unique peeling design

- Only the middle portion of the tape will be peeled off along the score lines at sides
- Create a very uniform peeling with narrow peel range

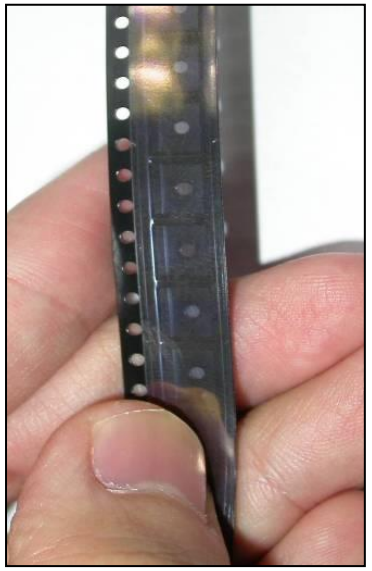




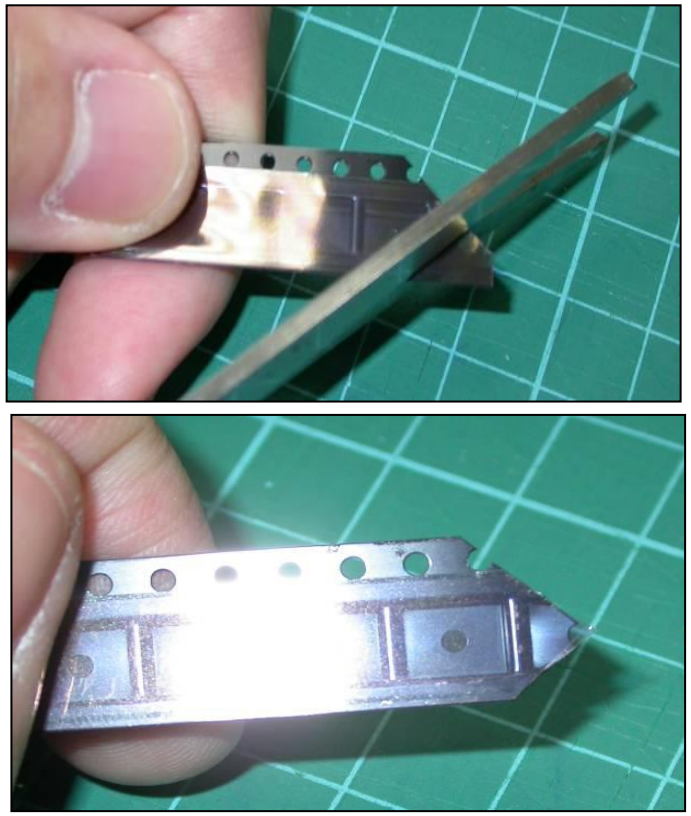
Adhesive at sides

- Adhesive edges remain adhere to the carrier tape, only the middle part will be removed
- Adhesive free at middle portion, helps reduce risk of adhesive contact or contamination to die surface

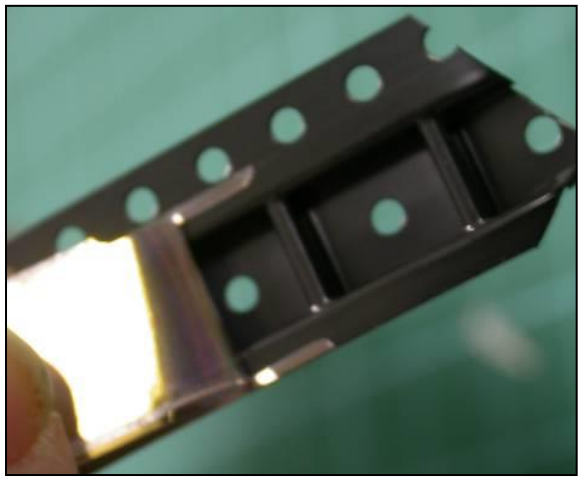
Recommended UCT initiation and peel direction



1. Hold the carrier tape with sprocket holes on the left hand side.



2. To assist initiation, cut a V-shape on the carrier tape.

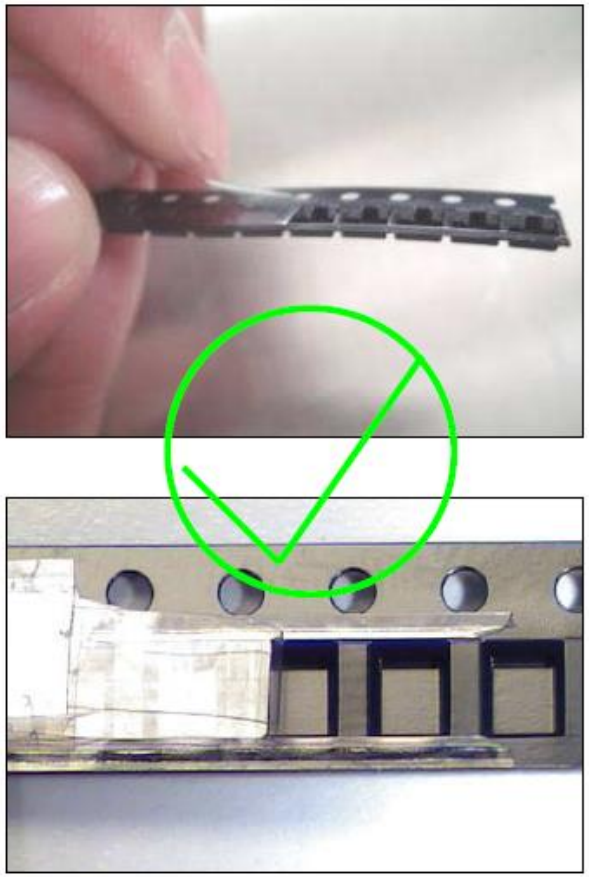


3. Peel off the UCT at 180º angle until the tracks are fully initiated and cut into the center part.

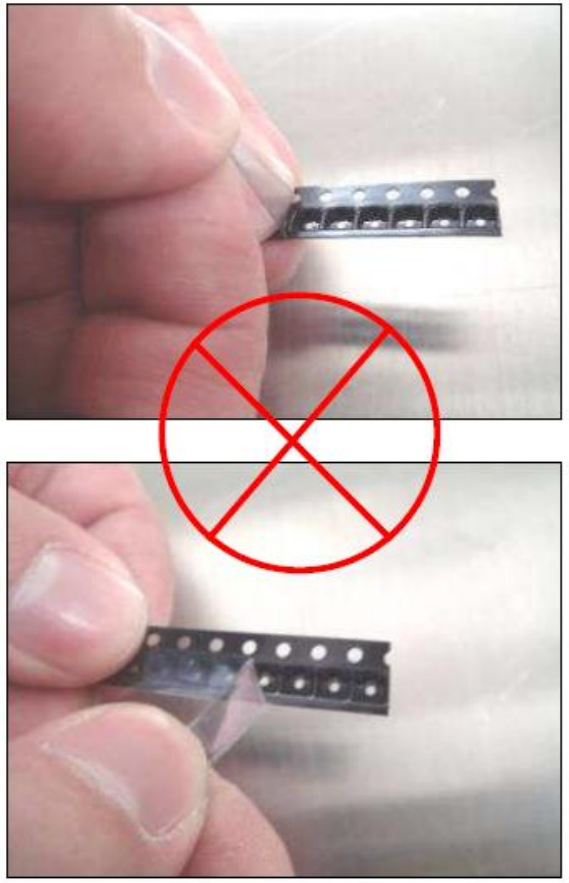
Recommended UCT peel angle

Keep UCT peel off angle close to 180^{o}, ensure the middle portion start up prior to setup on feeders.

Correct peeling method

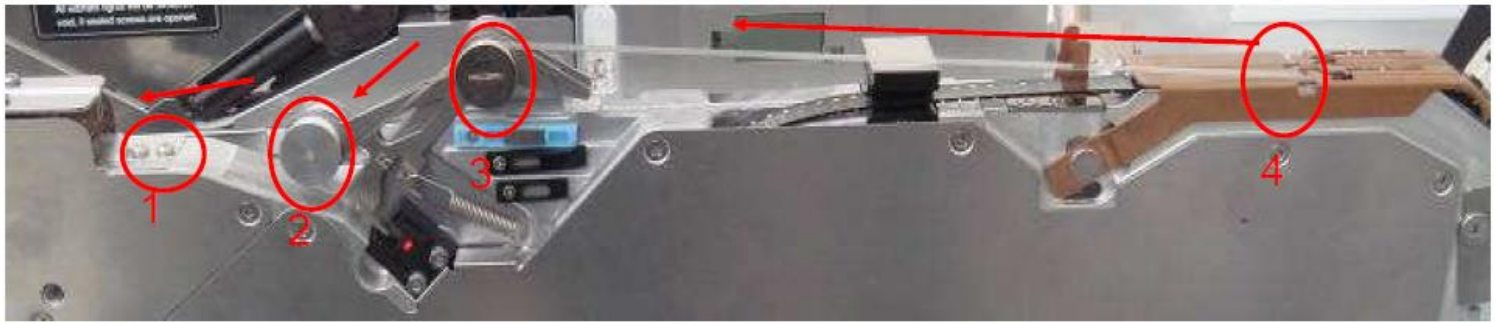


Incorrect peeling method

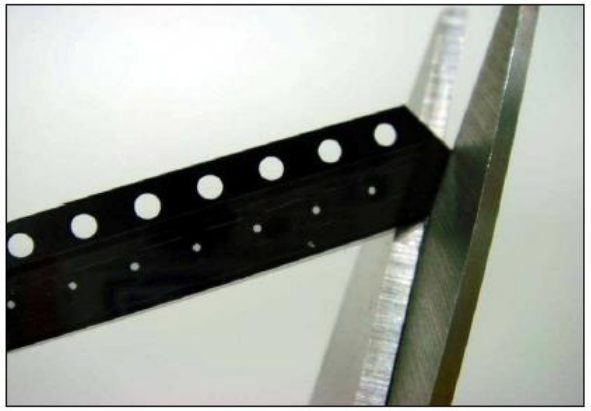


Recommended process for UCT taped reel feeder loading

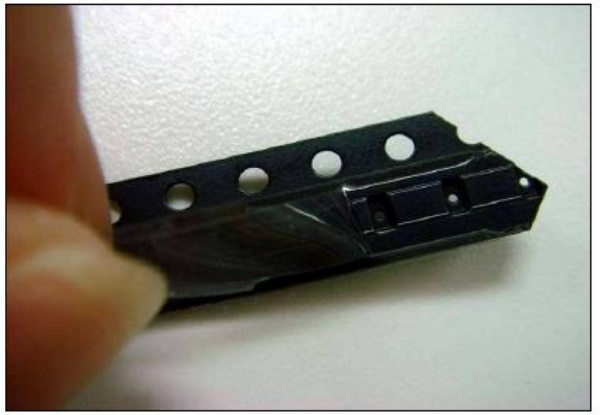
1. Clean every possible position that might have adhesive remaining on the feeder, rollers and gears, etc. Empty the cover tape recycle bin. Clean the feeder tracks.



2. Use a scissor to cut the leader of UCT taped reel into a ‘V’ shape



3. Peel off the UCT. The middle portion initiates through the tracks and along the score line

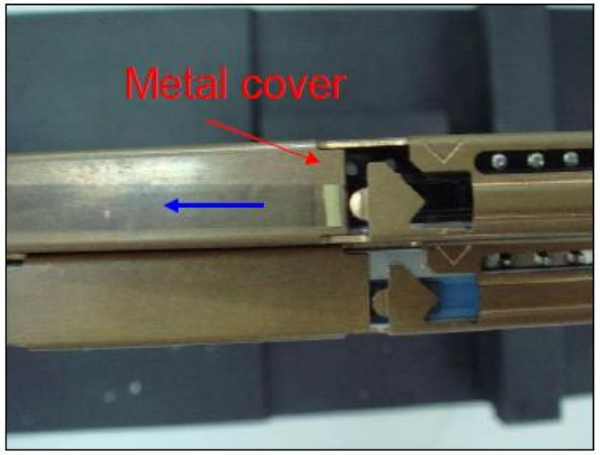


Recommended process for UCT taped reel feeder loading (continued)

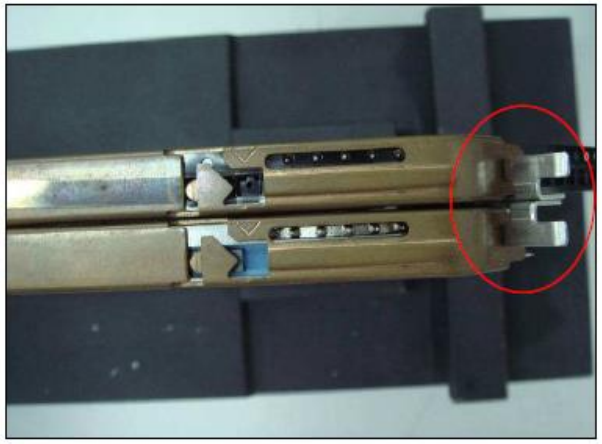
4. Insert the tape into the feeder track.

5. Set the carrier tape to the feeder sprocket gear (index gear).

6. Pull back the cover tape through the feeder metal cover.

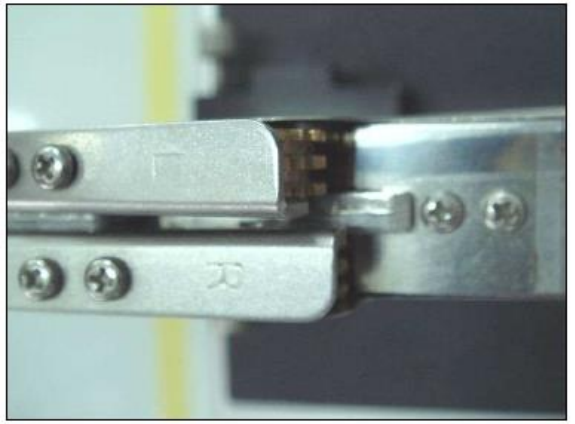


7. Lock the metal cover

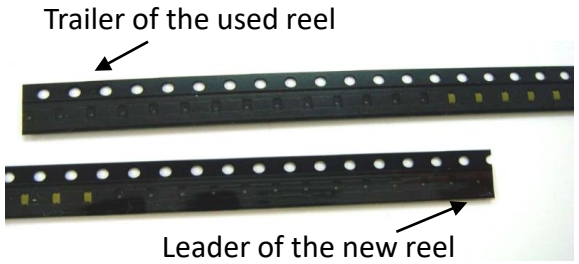


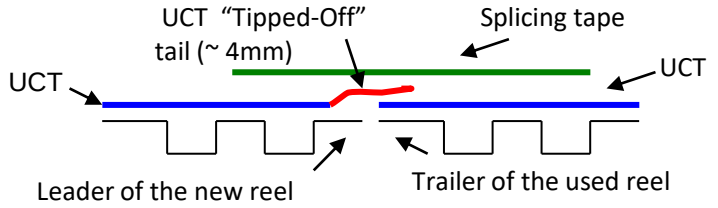
8. Index the feeder, leave enough cover tape length to the cover tape gears

9. Insert cover tape into the cover tape gears. Ensure the cover tape locked by the gears & no defects during indexing

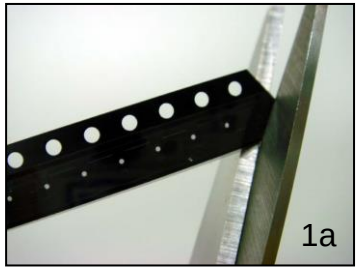


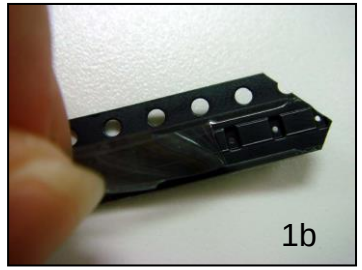
Recommended procedure: New reel start up for reel to reel splicing at SMT machine



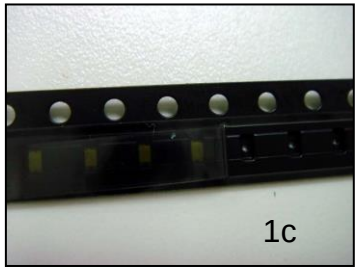


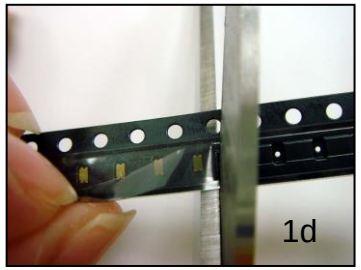
1. Start –up procedure for leader of the new reel

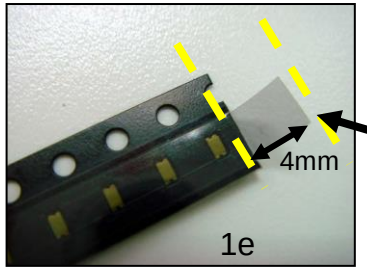




Use a scissor to cut the leader of UCT taped carrier into a "V" shaped as shown in the photographs above in Fig 1a & 1b

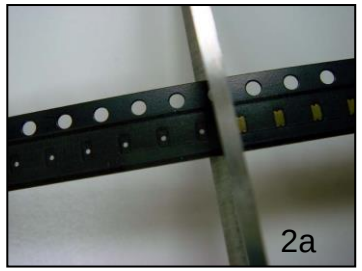


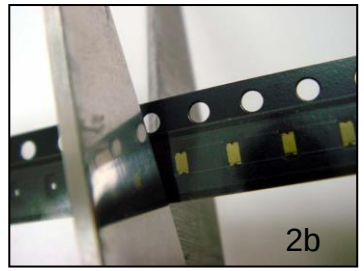




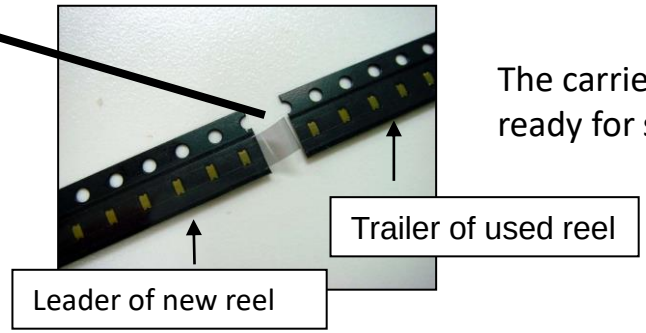
Peel off the UCT to the first component exposed on the leader of the new reel.
Cut away the excess carrier tape and leave a UCT "Tipped-Off" (approximately 4mm) as shown in Fig 1e

2. Start –up procedure for trailer of the used reel



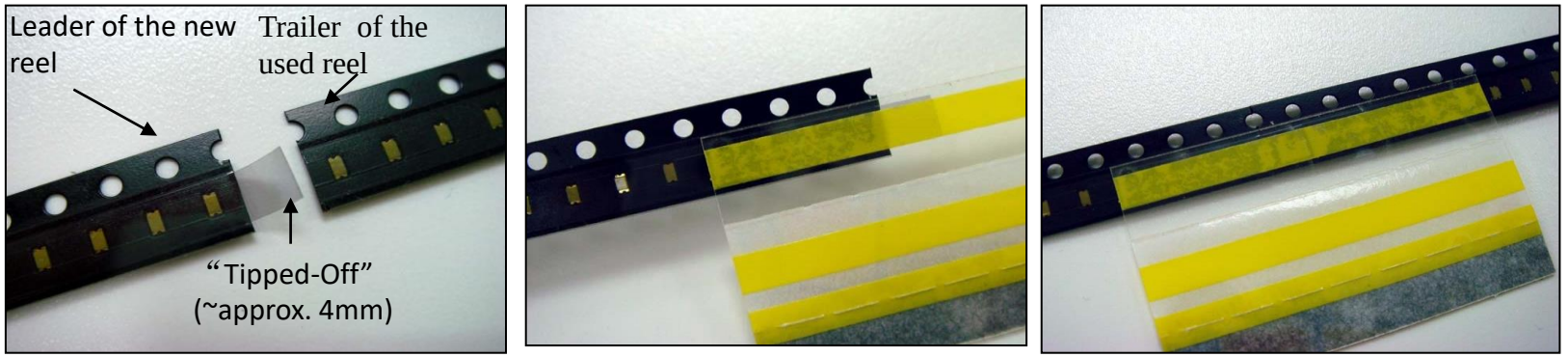


Use a scissor to cut off the empty pocket in the trailer of the used reel to the nearest filled pocket as shown in Fig 2a & 2b

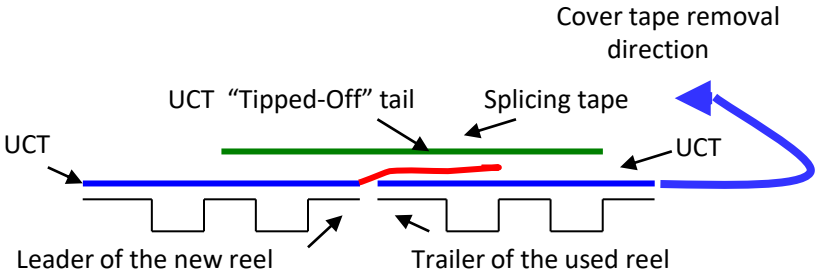


The carrier tape is now ready for splicing

Recommended procedure: Reel to reel splicing at SMT machine

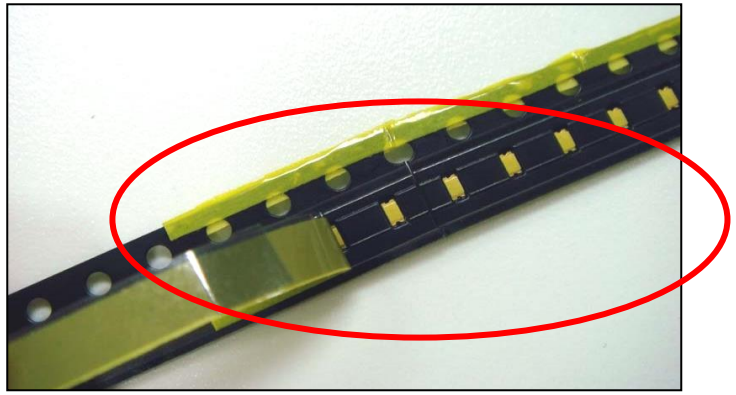


Joint the leader of the new reel to the trailer of the used reel using a splicing tape as shown in the photographs



Feeders used on SMT machines

Wrap the splicing tape over the UCT taped carrier. The splicing tape will hold the 2 strips of taped carrier firmly through the top, back and sprocket support.



Peel the UCT from the taped carrier, the splicing tape is able to hold on firmly without delamination.

3M contacts for information

For any questions:

1. Please feel free to contact 3M local team in your area
2. Or visit 3M website: www.3M.com/electronics (Product for business → Electronics → Semiconductor → Tape and Reel) for more 3M carrier and cover tape product information

IMPORTANCE **NOTICE**

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Thank you