



Tape and Reel Packaging

As a valued-added service, Actel offers tape-and-reel capabilities for several types of packages. With these options, customers can use tape and reel when operating pick-and-place equipment for volume production. Tape and reel offered by Actel is fully compliant to EIA-481 (Electronic Industries Association) standard.

Devices are programmed, baked, and lead-scanned before being placed in a pocket, where the device sits on a pedestal that protects the leads from mechanical damage. The pockets are then sealed with a protective cover. As part of the process post-programming tests, in-line mark inspection and package orientation inspection are used to ensure the highest possible quality level.

Benefits

- Industry standard-size reels are used to enable equipment flexibility.
- Reel is constructed of anti-static material that provides ESD protection.
- Carrier tape is made of conductive polystyrene material, or equivalent to protect devices from ESD damage.
- Shipments include desiccant pouches and humidity indicators to protect products from moisture.
- To assist with automated inventory control and component traceability, bar code labels are located on each reel.

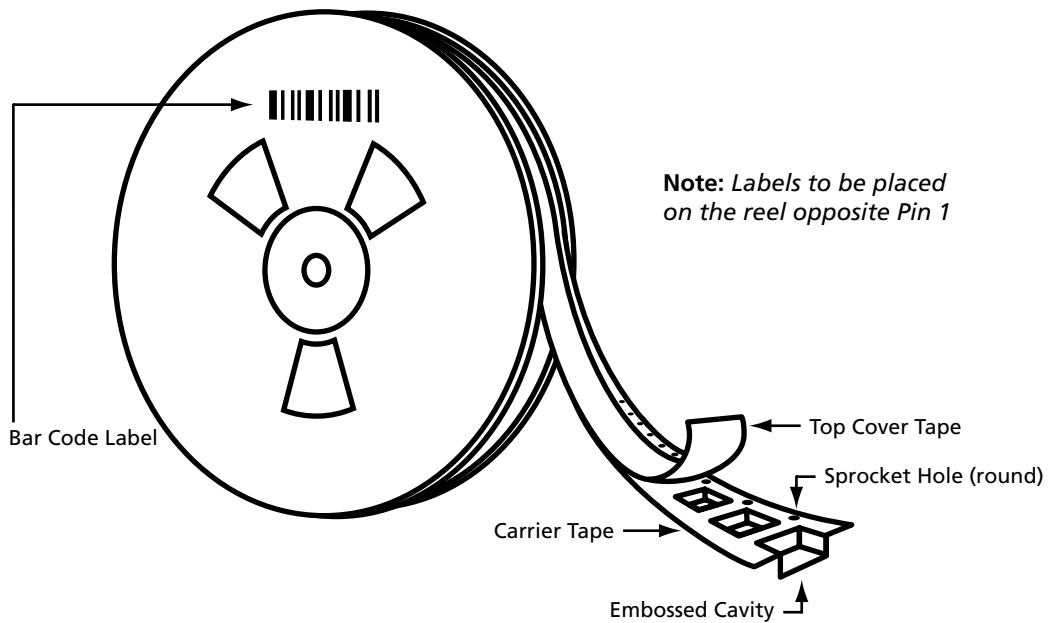
Attributes

- Carrier tape is made of conductive polystyrene material or equivalent, with a surface resistivity level of less than 1.0×10^6 ohms per square inch.
- Cover tape characteristics include anti-static, transparency, and heat-activated adhesive coating.
- Cover tape has surface resistivity on both sides of 1.0×10^7 ohms per square inch minimum, to 1.0×10^{11} ohms per square inch maximum.
- Surface resistivity for the reel is less than 1.0×10^{11} ohms per square inch.
- Bar code label print quality is compliant with [ANSI X3.182-1990 Bar Code Print Quality Guidelines](#). Presentation of data on labels is EIA-556-A compliant.
- The bar code label is an alphanumeric, medium-density Code 39 label.
- The bar code label on each reel provides the customer name, device part number, product date code, and quantity in the reel.
- The shipping containers for the reels are in a 13" x 13" x 3" C-flute, corrugated, #3 white "pizza" box, rated to 200 lbs. test.

Table 1: Tape and Reel Information

Package Code	Qty. per Reel	Reel Size (inches)	Carrier Width (mm)	Cover Width (mm)	Pitch (mm)
PL44	500	12	32	25.5	14
PL68	250	13	44	37.5	32
PL84	250	13	44	37.5	36
PQ100	250	13	44	37.5	32
PQ144	200	13	44	37.5	40
PQ160	200	13	44	37.5	40
PQ208	200	13	44	37.5	40
TQ64	2000	13	24	21.0	16
TQ100	1000	13	24	21.0	32
TQ144	750	13	44	37.5	24
VQ80	1000	13	24	21.0	32
VQ100	1000	13 <td 24	21.0	32	
FG676	500	13	44	37.5	32

Bar Code Label Location



For more information, visit our website at <http://www.actel.com>



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