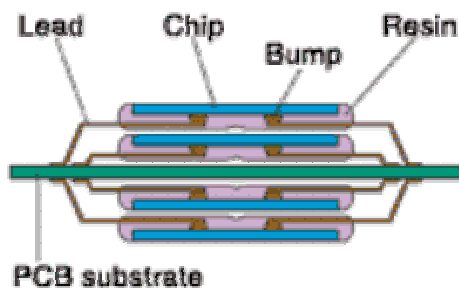


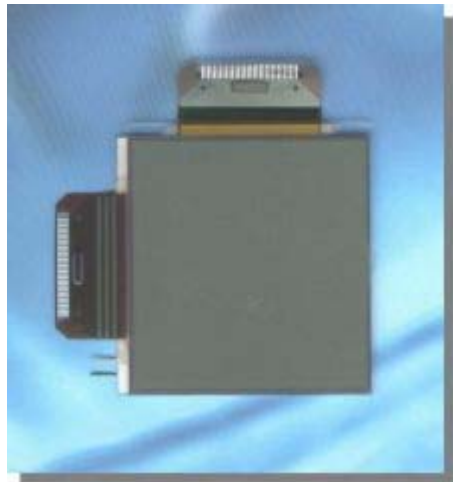


TAPE AUTOMATED BONDING (TAB)



Tape Automated Bonding (TAB) LCD driver or controller electronics are encapsulated in a thin, hard bubble package, of which the drive leads extend from the bubble package on a thin plastic substrate. The adhesive along the edges is used to attach the TAB to the LCD glass and/or PCB.

Tape Automated Bonding IC mounting method uses the same type of integrated circuits as Chip-On-Glass technology - Gold Bumped Flip Chips. After this type of IC chip has been produced, a gold bump is placed on the IC chip and then sealed onto the polyimide board. (This procedure is called ILB or Inner Lead Bonding) and is how the TCP IC is produced.



Advantages:

- Offers compactness (IC and its interfacing circuitry can be bent behind the LCD glass panel).
- Some times more cost-effective than Chip-On-Glass, if a designer has to integrate a keypad or indicator around the display.
- The active area is centred (differently from COG).
- Can provide interfacing at very fine pitches.

Disadvantages:

- The bonding area is weak. Less reliable than COG.
- More expensive than COG. Even though TAB LCD modules use the same type of IC as COG, tape automated bonding requires a package.

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