Tohoku Univ. Technology

Method of manufacturing semiconductor package and its package

It provide a manufacturing method that can suppress die shift

Overview

The Fan-out Wafer Level Package (FOWLP) method, which is the mainstream method for semiconductor packages, especially for mobile applications, has a problem of "die shift" in which mounted components shift by flow of sealing resin and wiring defects occurred. Further, even in a device such as a flexible display, there is a problem that a mounted component on the device is shifted when the device is bent.
In order to solve the above problems, the invention is a method of manufacturing a semiconductor package without die shift by incorporating a special anchor layer under a mounting component and adopting a special manufacturing process, and the semiconductor package.
The invention is expected to produce a highly integrated semiconductor package without a die shift, and to be applied to a flexible display and a wearable device.

Product Application

- μ-LED Flexible Display
- Semiconductor package for flexible wearable device

IP Data

IP No. : WO/2022/025214
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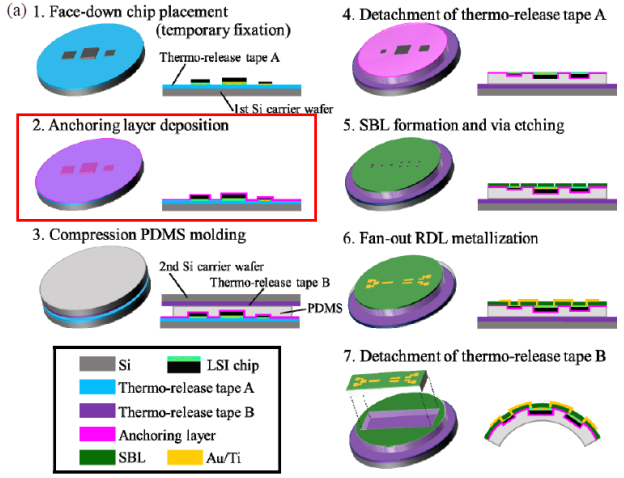
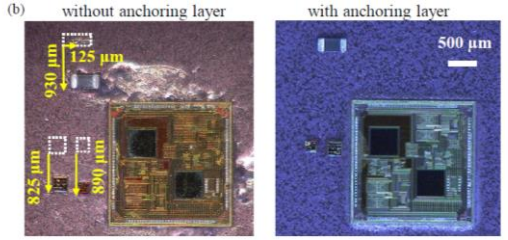
Admin No : T20-454

Features・Outstandings



Introduction of an anchor layer formation process in the manufacturing process



The left figure shows no anchor layer, and the right figure shows with an anchor layer. => suppressing die shift is succeed!!

Related Works

[1] T. Fukushima et al., IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. 10, no. 8, pp. 1419-1422, Aug. 2020

Contact

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