Module 2

Lesson 3

Three Types of Packaging

* Wire Bond Packaging

In this we have a substrate and then a die on top with connections using a wire.

* 1. First by looking at the wafer map we will choose a good die and out it on the substrate.
     1. Dispense the epoxy where you want the chip to be.
     2. Pick the chip
     3. Place on the Die Attach Film (DAF)

<https://drive.google.com/file/d/1lQt5tAbdytzSCV7Ls-7ih0lsNYACvA3Z/view?usp=sharing>

* Then we need to do the process of curing (heating) to give it mechanical strength.
* First using the dispenser we create a free air ball.
* You can use temperature, pressure or vibration to attach the ball to the die and make a bond.
* The dispenser moves up and makes a loop before reaching the pad’s surface.
* Then we make a crescent bond which is cutting of the excess wire using force and we are left with a wire tail.
* Finally reheat the wire tail to make a free air ball and begin the process again.

<https://drive.google.com/file/d/1eW2A9F1qK5IBJgx6QgzEml_viaRvwKIO/view?usp=sharing>

* Using the transfer method we now pass the molding compound on the chip.
* Then the marking of the packages happens through lasers and this helps to identify the package.
* Then we have the process of singulation where we bring back the blade and dice the package.