

Foxconn LIF 223 Socket User Guide

P/N: PL223*3-164*-01F

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Application

Introduction

- Name : LIF 223 Socket
- Pin count : 223 Positions
- Socket envelop: 50.34mmx21.94mmx2.24mm
- Interface:



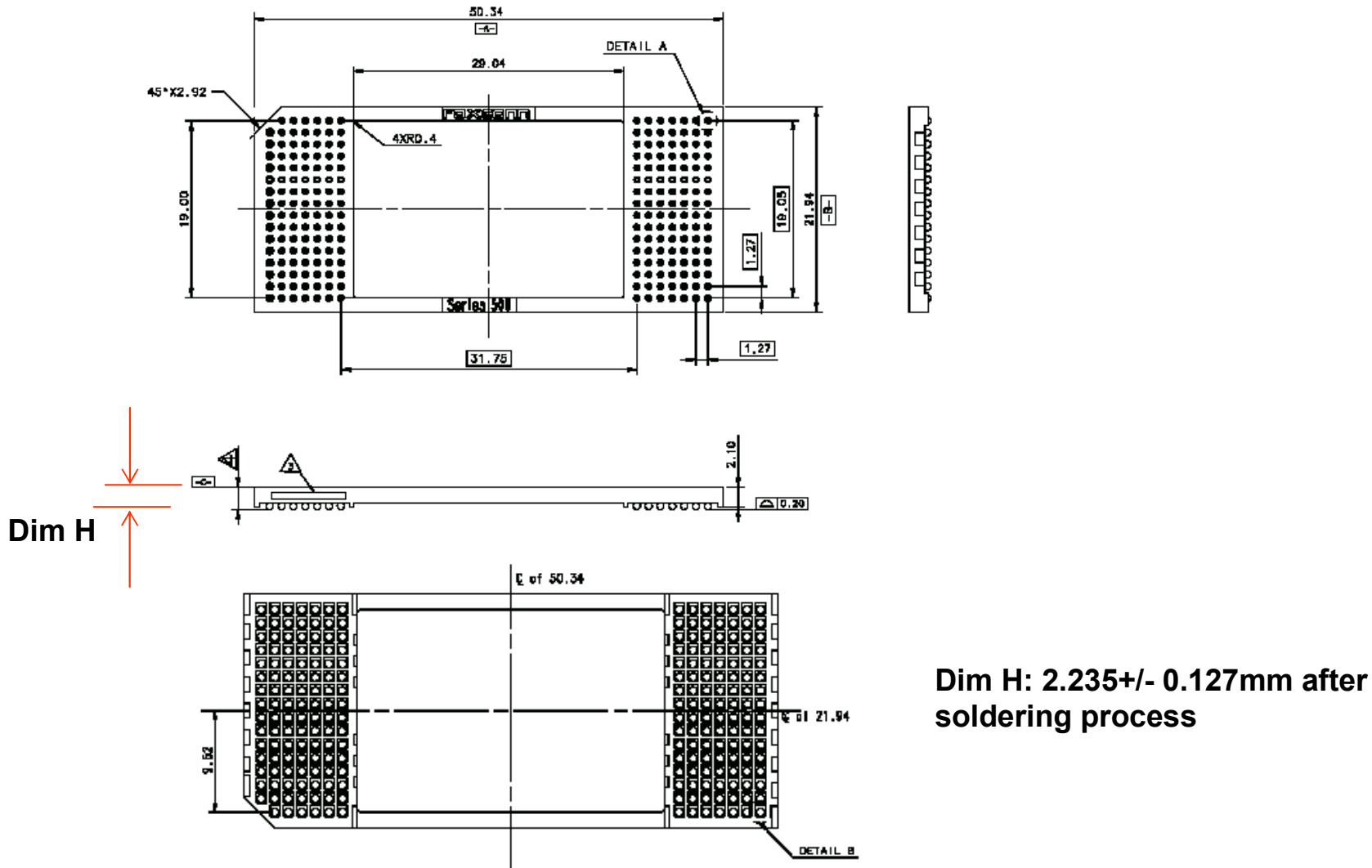
Carrier side : Low insertion force with 2 point contact for
m PGA pin on the package

PCB side : $\varnothing 0.76\text{mm}$ solder ball

Solder ball coplanarity 0.20mm max

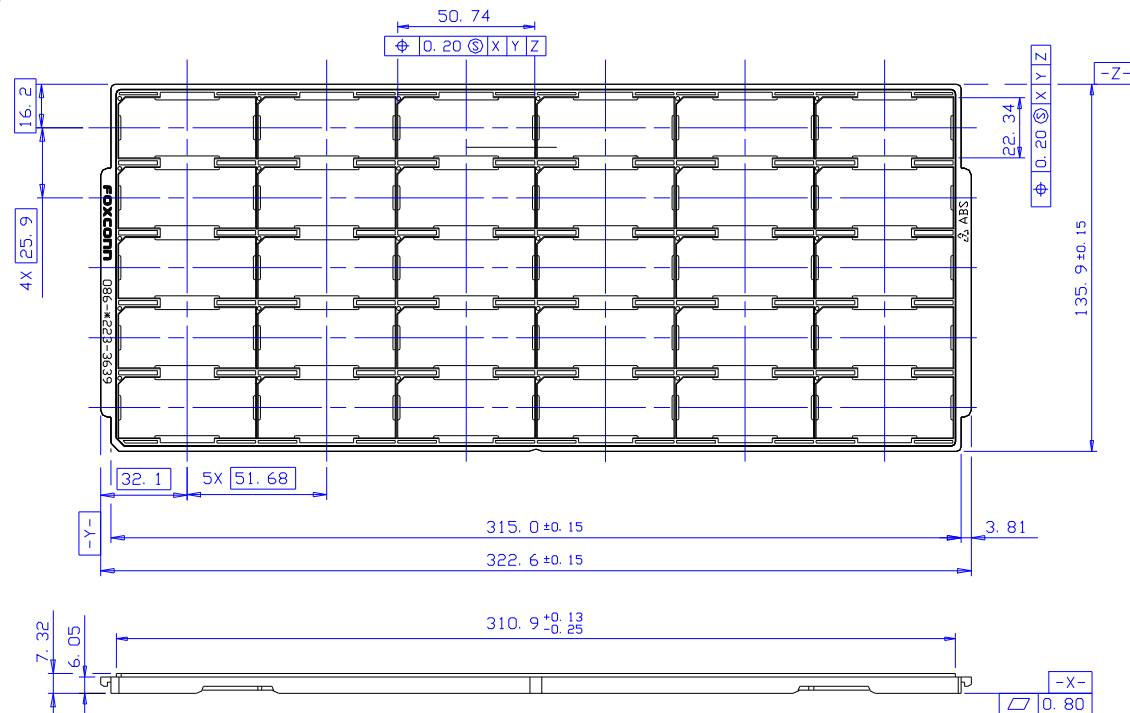
Socket outline dimension

The outline dimensions of LIF223 socket are shown as below.

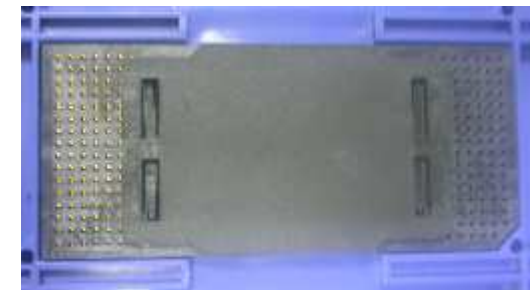
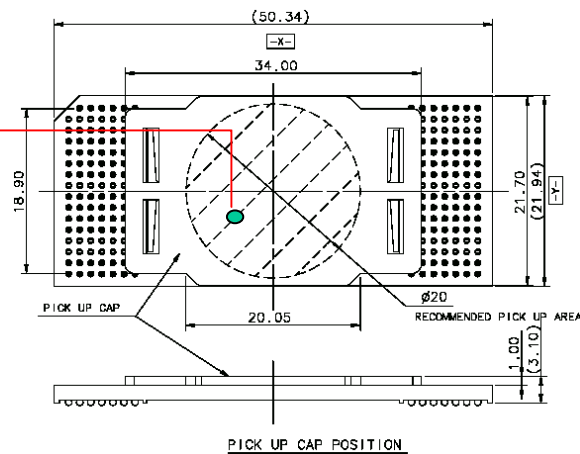


Socket Pick & Place Design

Foxconn's packaging tray dimension:



Center of Gravity
(Recommended Pick-up Location)



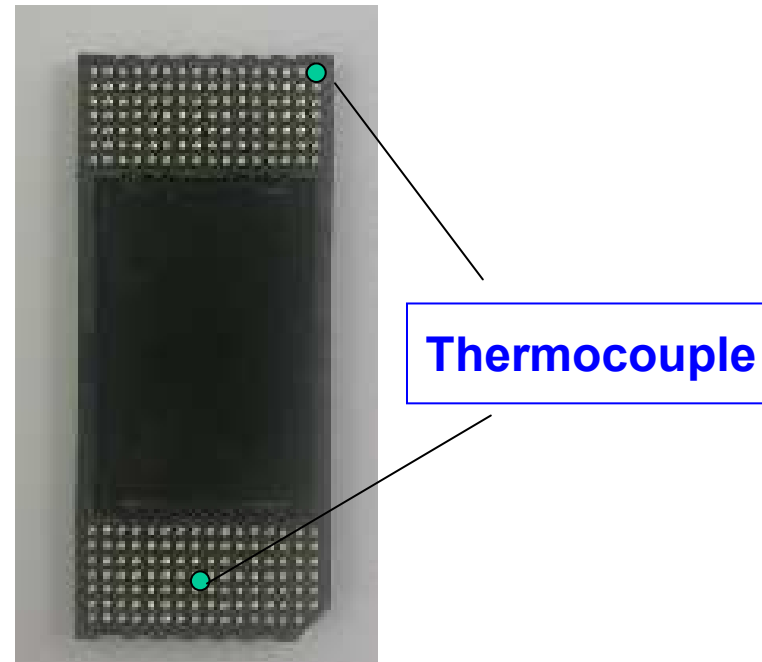
Relation between socket and tray pocket

Recommended Soldering Condition

Defining the location of tested point

In order to ensure the quality of all the solder balls after reflow process, the profile of the point at lowest temperature and highest temperature must be controlled. The point at lowest temperature and highest temperature were defined as the following figure.

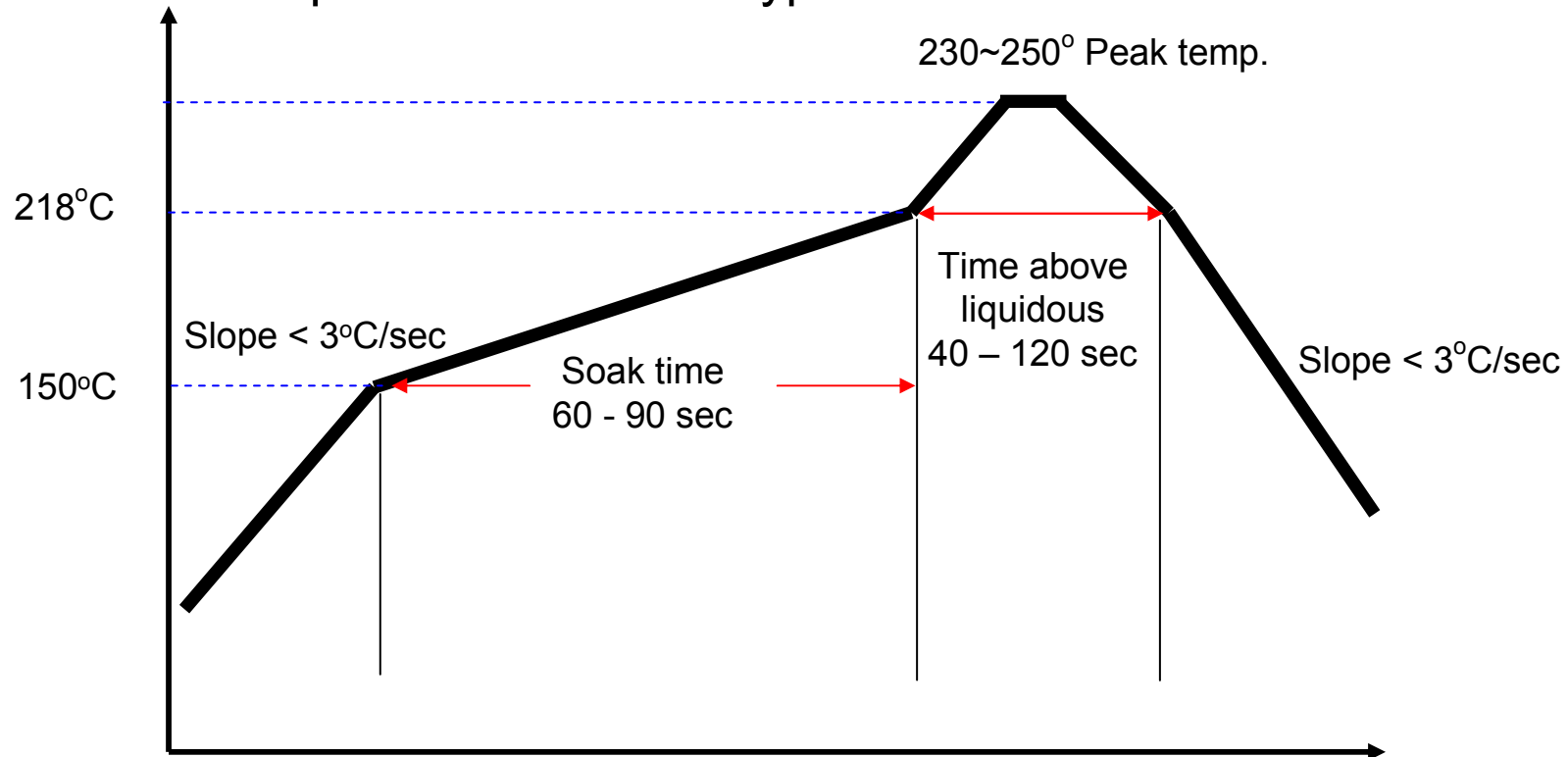
The test point of solder ball



Recommended Soldering Condition_continued

Solder Ball Temperature Profile

Recommend profile of lead-free type is showed as below.



Solder paste: Tamura (lead free type)

Stencil thickness: 0.14~0.15mm

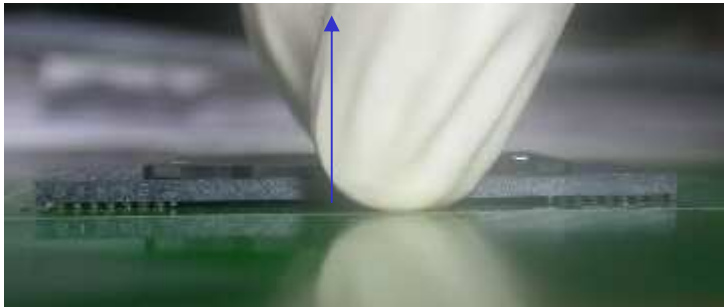
Stencil diameter: 0.55~0.65mm

Socket actuation Introduce

Insert Carrier on Socket

1.Remove the cap with two fingers by vertical force.

vertical removal force

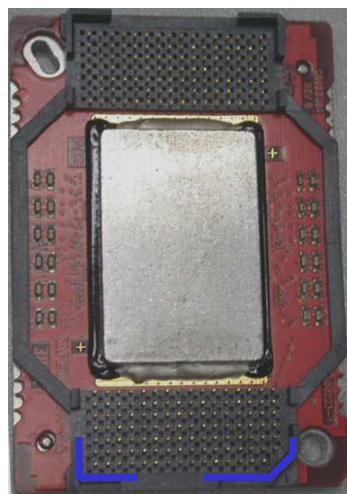


Socket actuation Introduce_continued

- 2.1 Make sure pin 1 indicator is on your bottom-left side.
- 2.2 Aim at the socket and place the carrier carefully into the socket by purely vertical motion, Press the Carrier lightly by fingers to make sure there is no gap between Carrier and socket.
- 2.3 Visually inspect if the Carrier is seated well into the socket. If not, take out the CPU with purely vertical motion and repeat the step to re-load the CPU.

Note :a. The red mark on Carrier should be match with the mark on socket before carrier insertion as below figure.

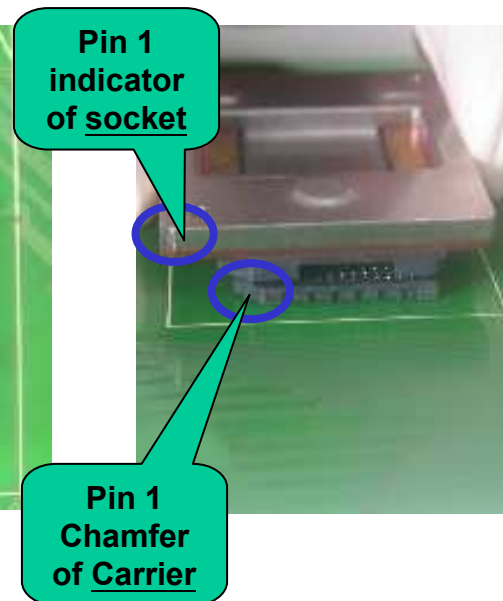
b. The alignment wall of Carrier should be match with the alignment hole of socket before carrier insertion as below figure.



Alignment wall
of Carrier



Alignment edge
of socket



Socket actuation Introduce_continued

3. Push down the carrier with two hands by vertical down force.



vertical down force

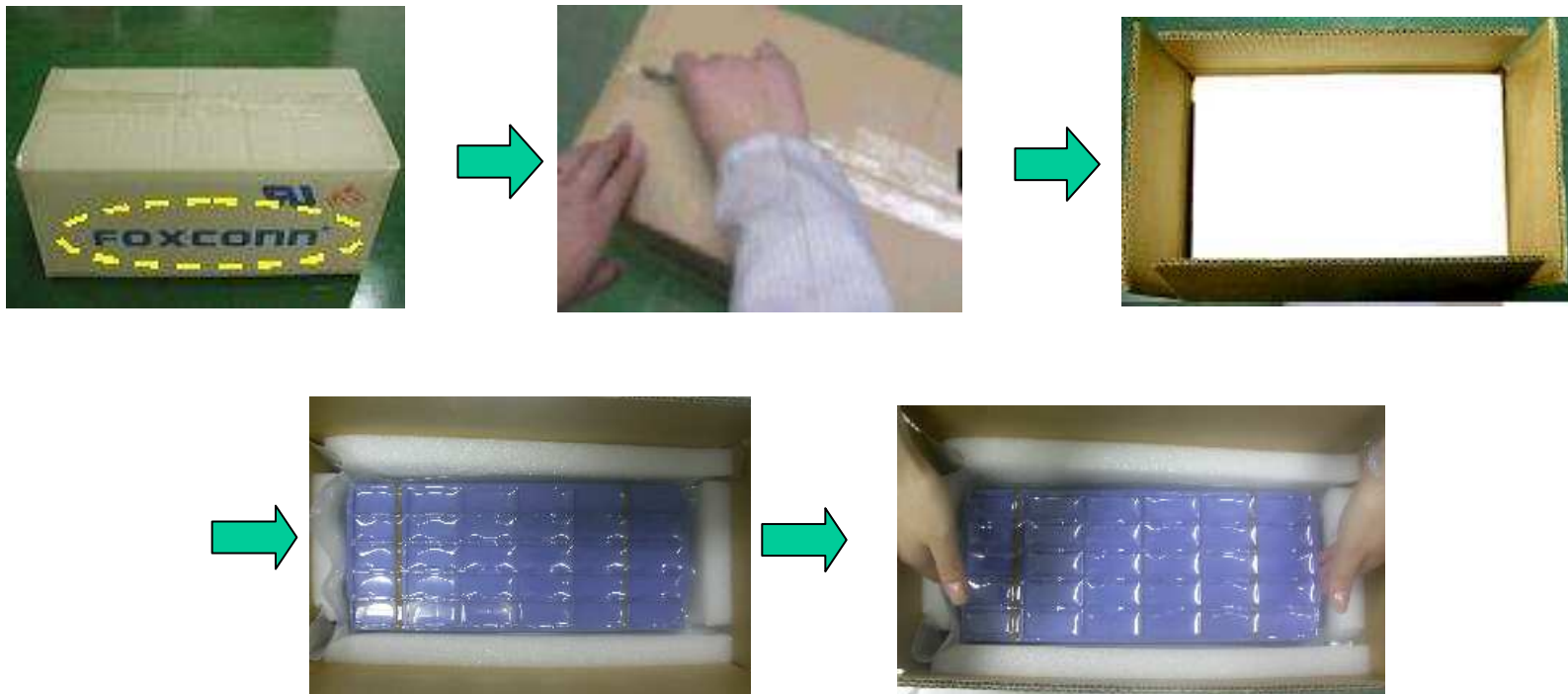
Remove Carrier from Socket

1. Hold the four corners of the carrier with two hands. Remove the Carrier by vertical up force.



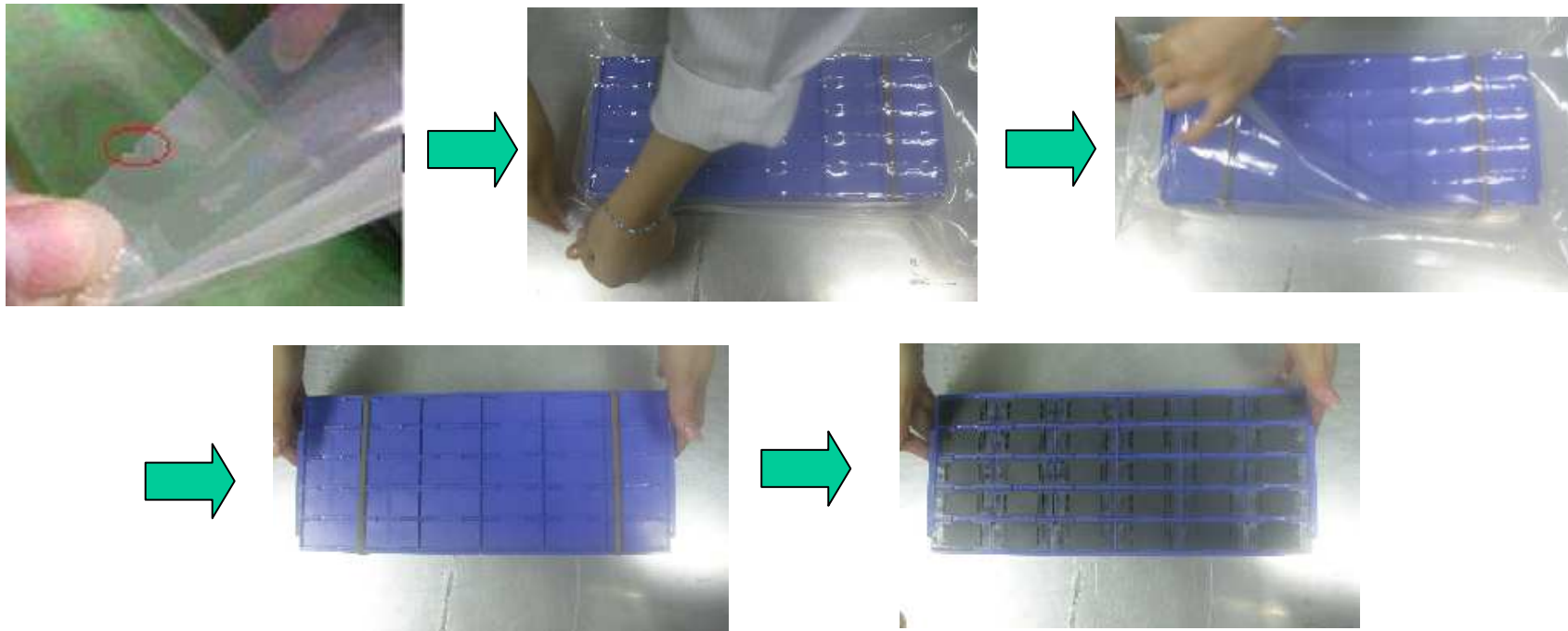
Unpacking Guide

1. Place the box and make sure the logo 'Foxconn' is in the right direction.
2. Use a knife to open the box.
3. Take out the packing foams.
4. Hold the sockets with two hands carefully.
5. Lift up and put the socket on the table.



Unpacking Guide_continued

6. Locate the opening of the vacuum bag.
7. Tear the bag gently without shaking the tray.
8. Remove the vacuum bag.
9. Customer application.



How to reserve Socket

If the vacuum package is opened, we suggest the following method to reserve the remain socket if sockets cannot be used up.

1. Put the remain socket on the hard tray and put back the hard tray into the vacuum package.
2. Keep the package in the following condition.
Humidity <60% RH , Temperature under 22~50 ° C (Same as chipset's reserved condition is preferred.)
3. The reserved time limit is six months.
4. After customer reused the remain socket, the socket does not need to be baked.
5. Put the remain socket on the hard tray and put back the hard tray into the vacuum package.