

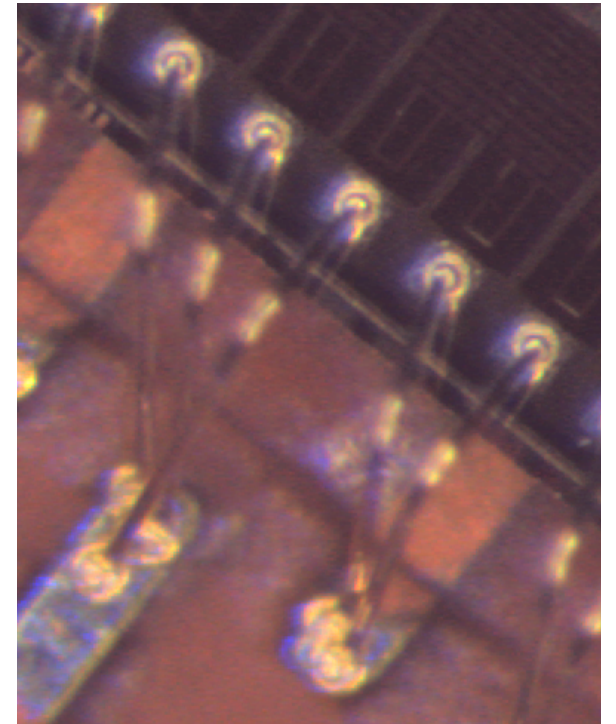
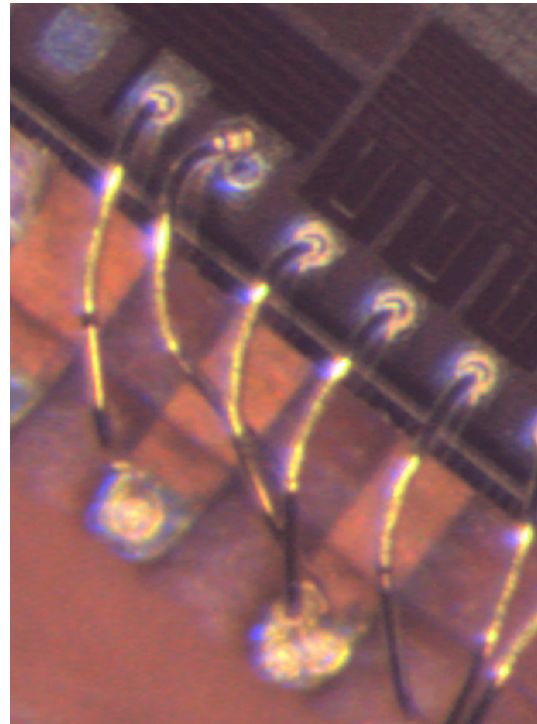
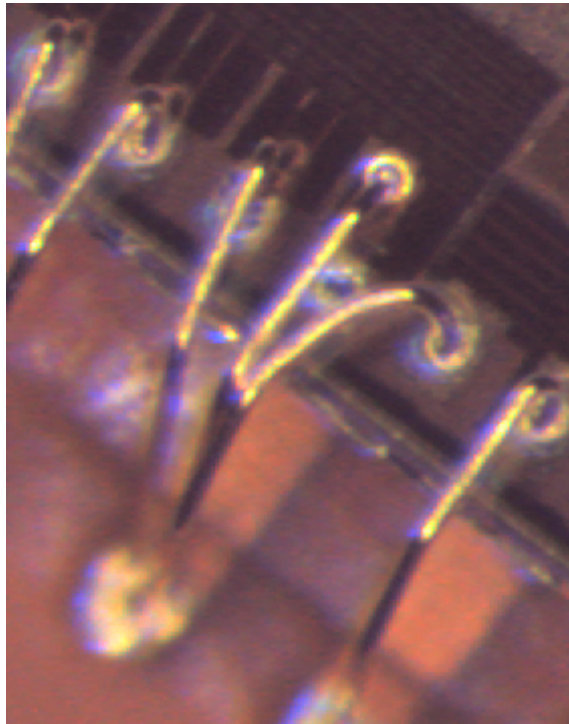
Sensor to Ladder Wire Bonding @ Xinyueda Company

WEI WANG, TIANYA WU, ZHIJUN LIANG

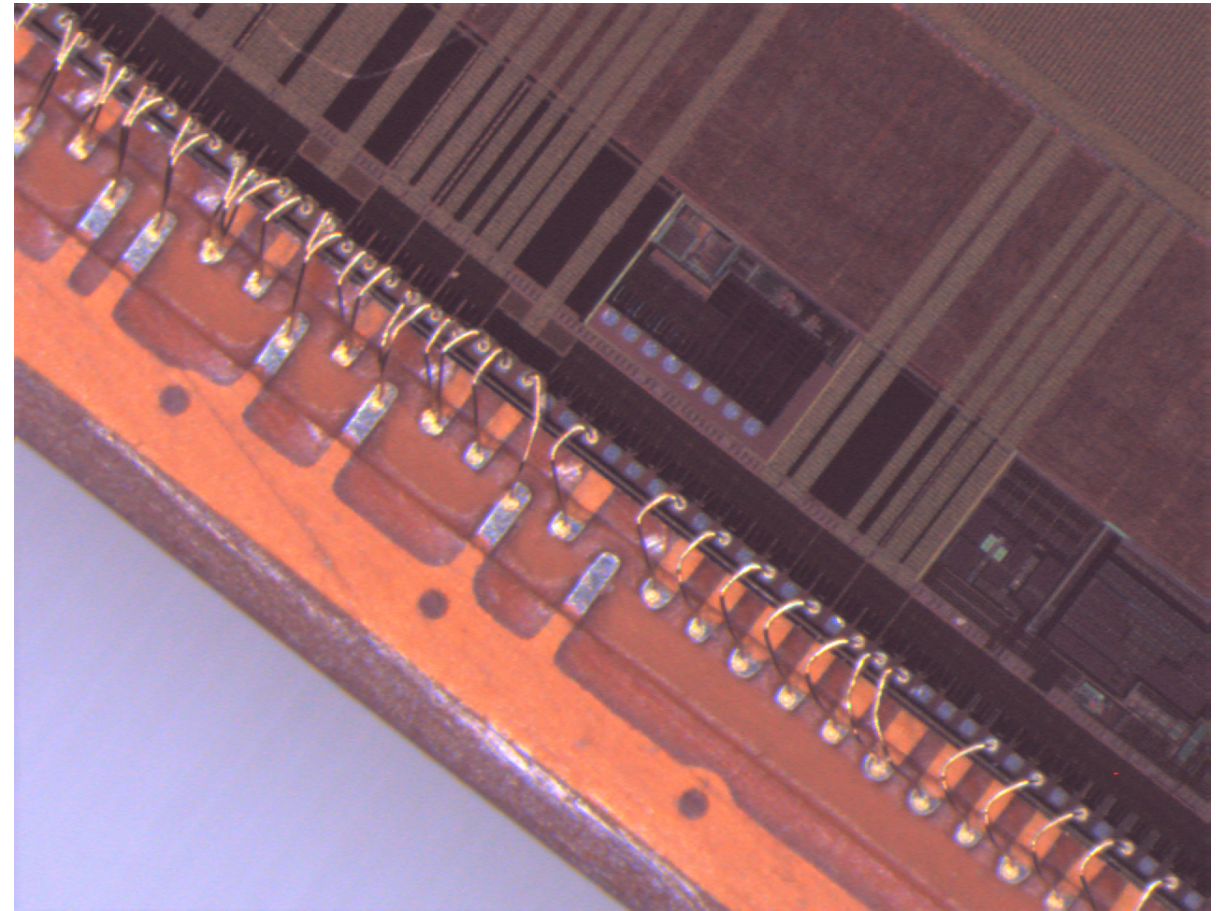
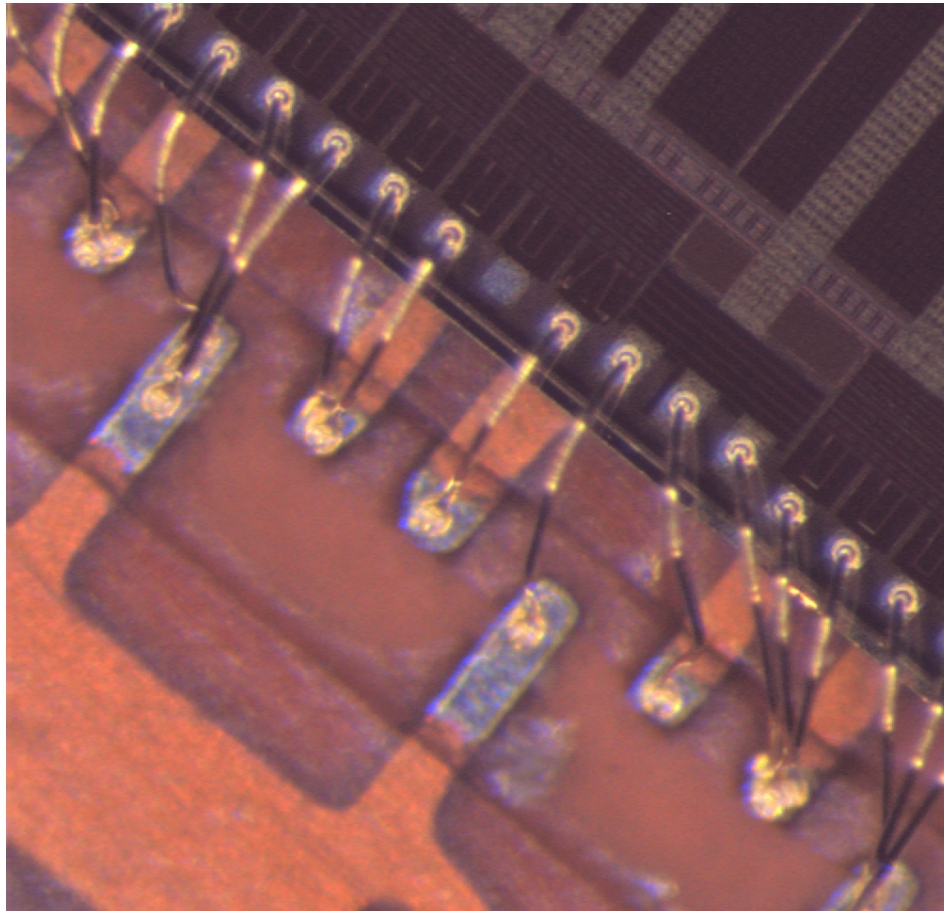
Bonded ladder sent back

- Still shorted after bonding
- No obvious shorted wires observed

Broken pads

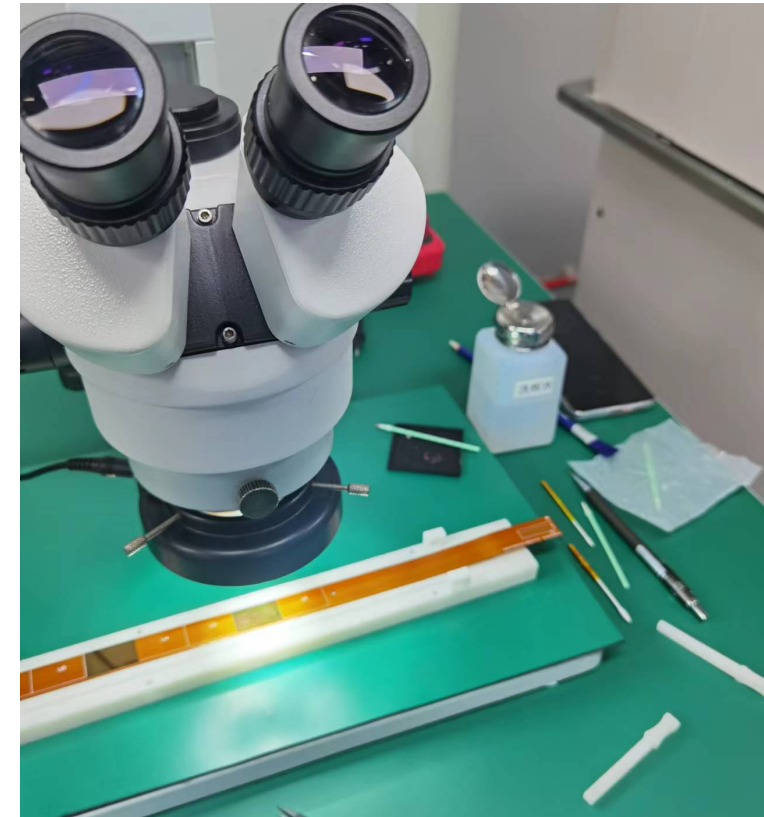


Strange shape of the line



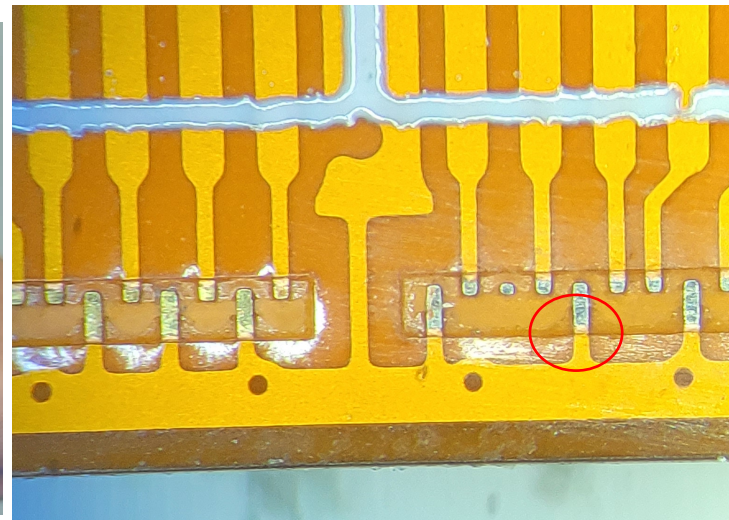
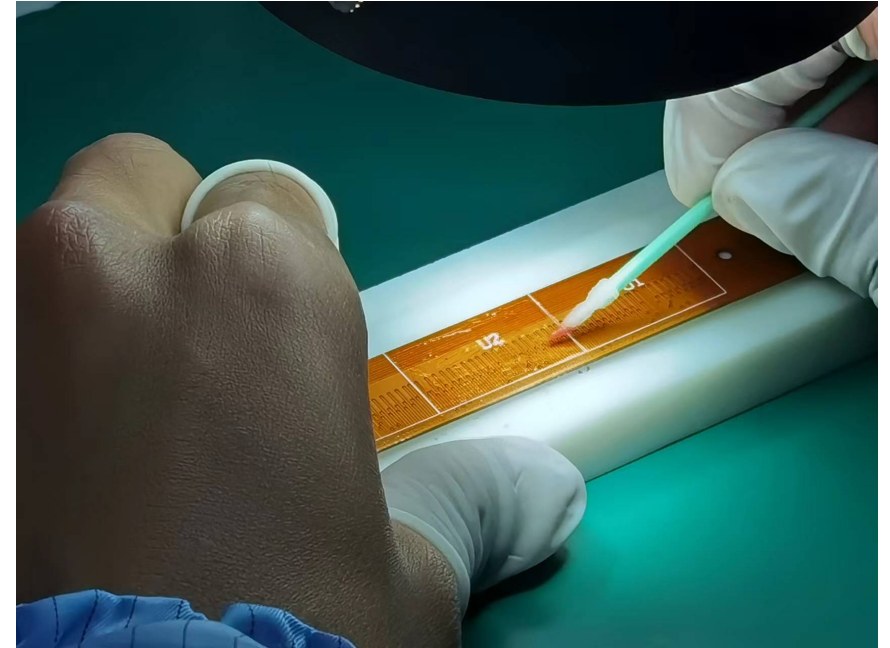
Back up

Send 1 ladder and 2 sensors to Xinyueda company for wire bonding



Gluing and preparation

- Manual gluing with non-conductive glue
- Dry for 20min @ 180°C
 - Climate chamber too small for our ladder
- Removeable after drying
 - Ladder can be reused
 - Sensor would possibly break
- Pads on ladder is oxidized
- Some part of the ladder pads get covered by solder mask



Bonding

- 10um thick gold wire
- Wiring table quite small
 - Can bond one chip and move to next manually
 - No space for tooling
- Problem feedback in sensor to PCB bonding
 - Sometimes fail to bond one pad at the first try and the pad break(?)
 - Possible success on 2nd try, otherwise cannot be bonded anymore
 - Sensor pad too thin(10um)? Get oxidized as well?

