

Flex wire bonding

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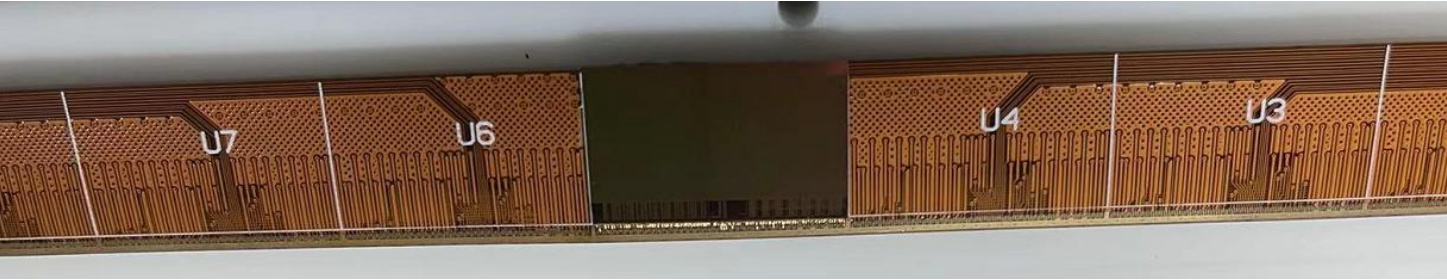
2022/10/27



Circular Electron Positron Collider

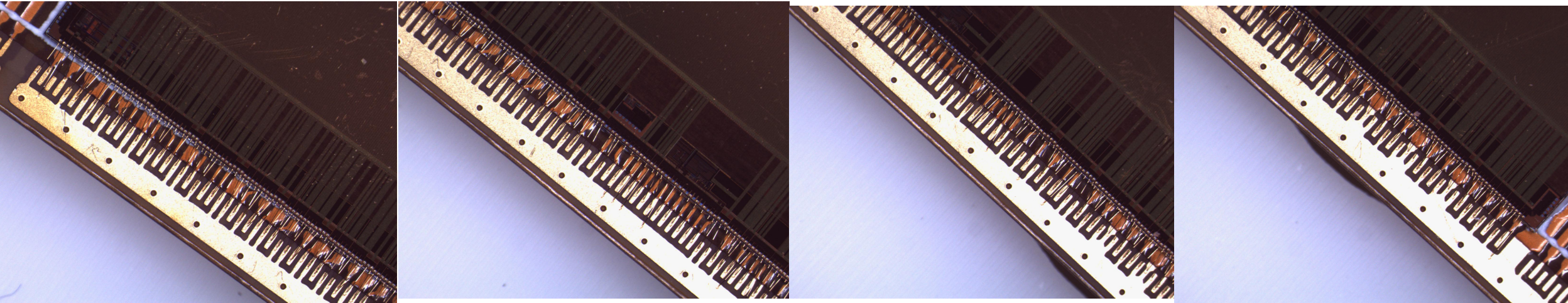


Flex short circuit after wire-bonding



- Flex was measured before wirebonding
- U5 was wirebonded
- A short circuit appeared(VDD to GND 1ohm and 24 ohm, GND to GND 0.1ohm)
- Schematic was checked without potential errors
- Wires were bonded as expected.

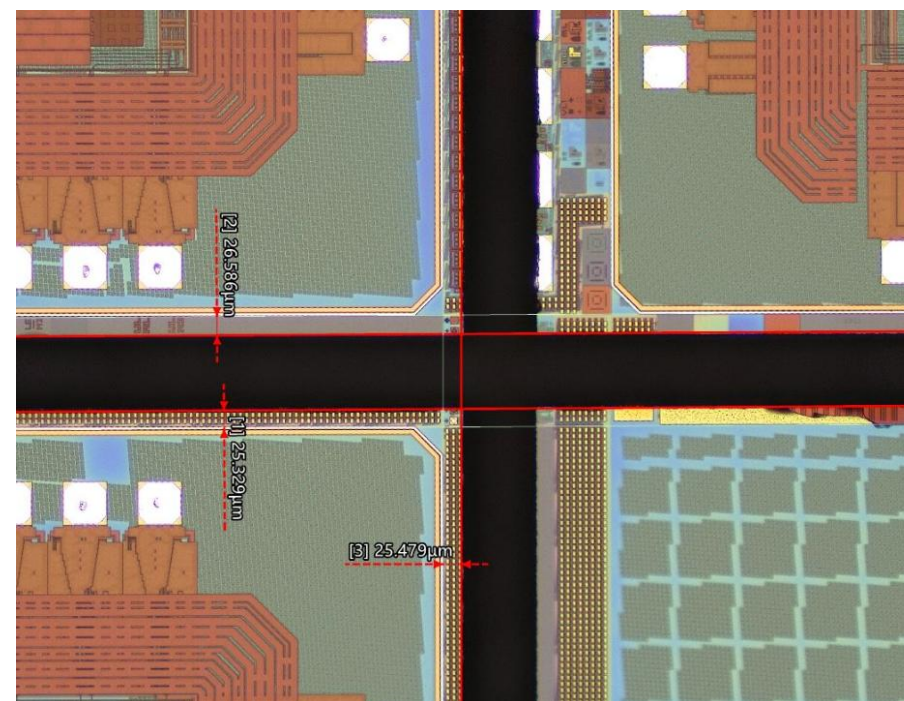
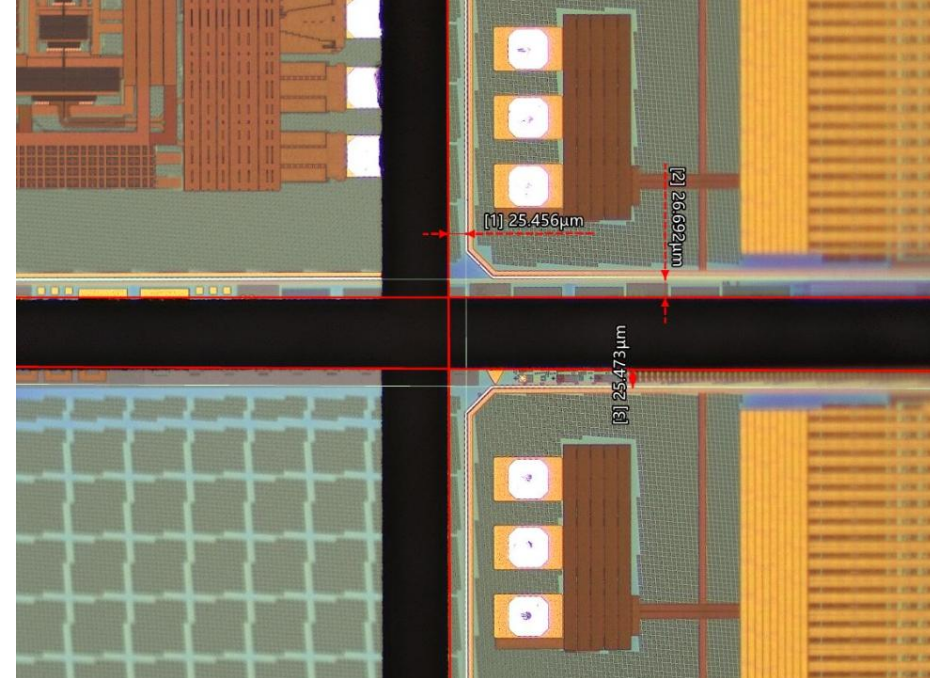
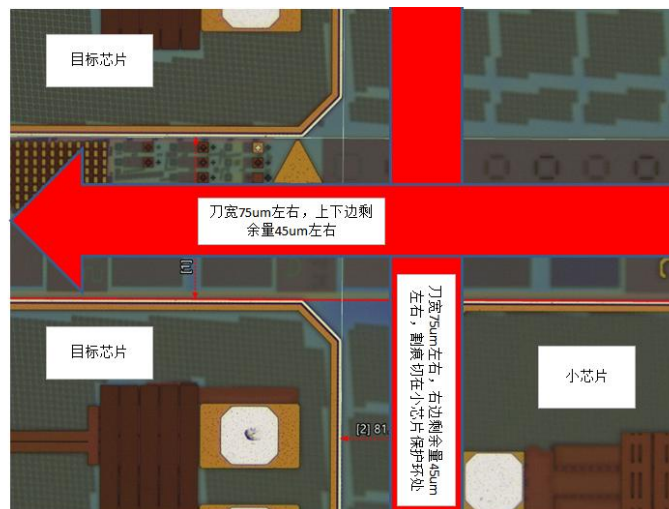
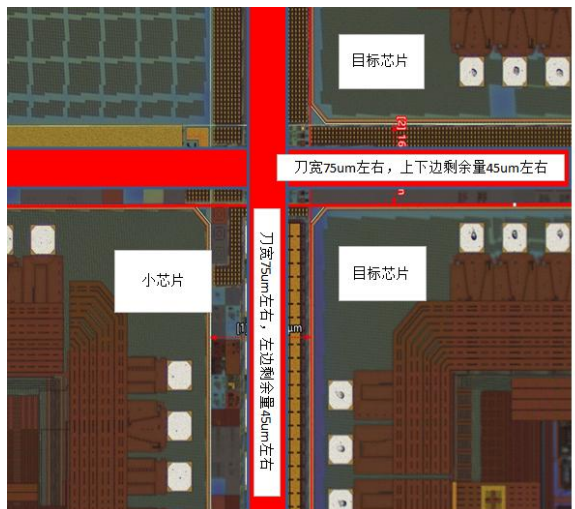
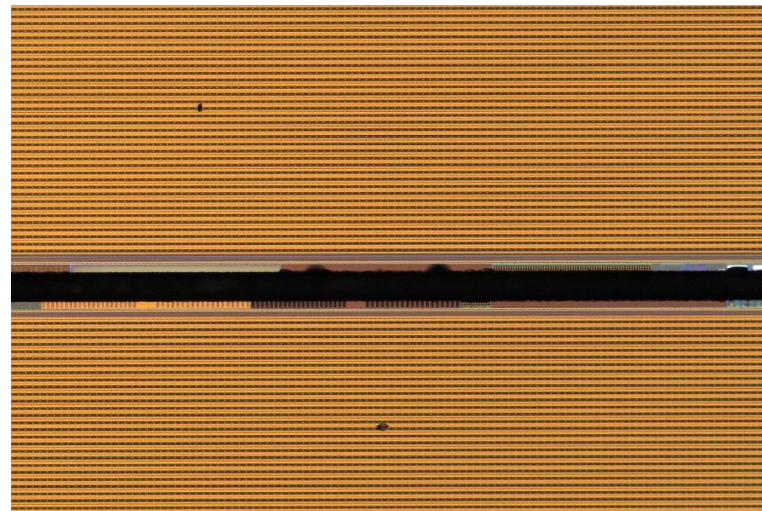
How to target the root of error? do more wirebonding? check everything again?





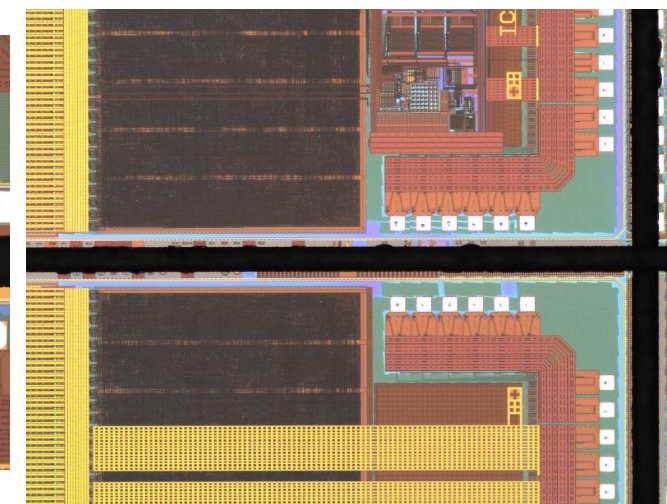
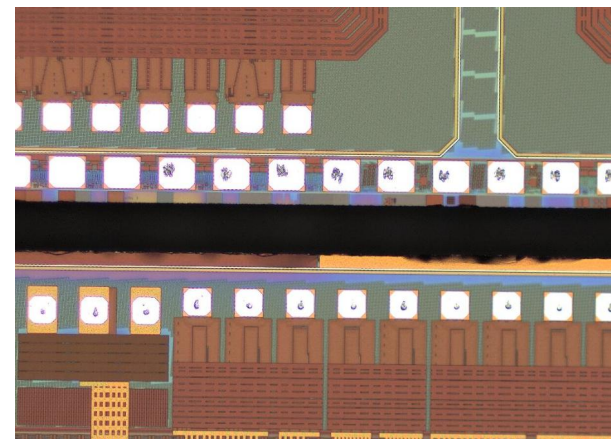
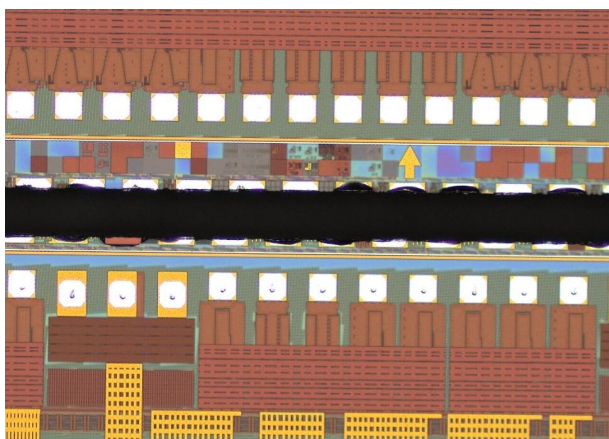
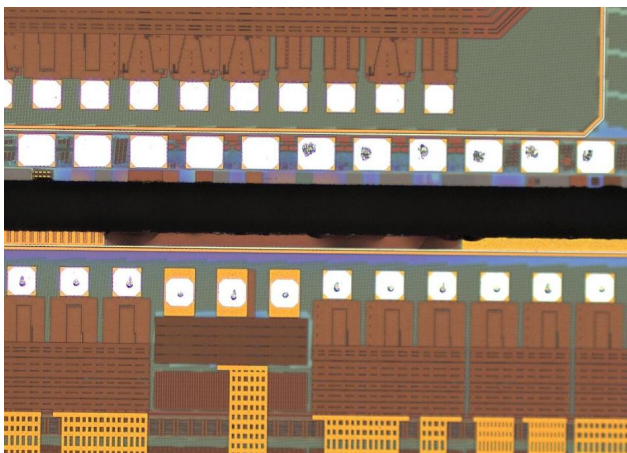
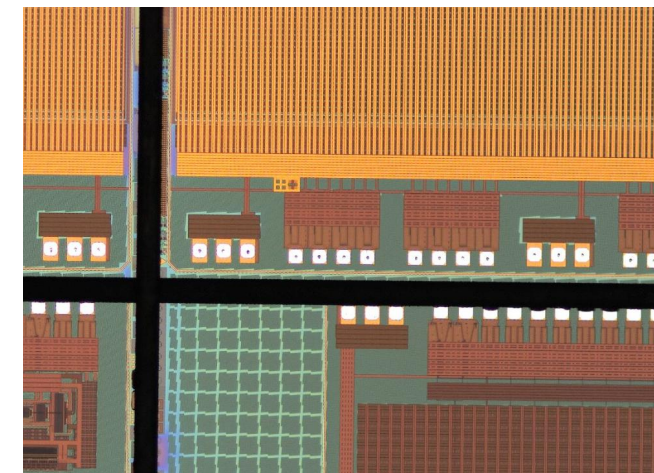
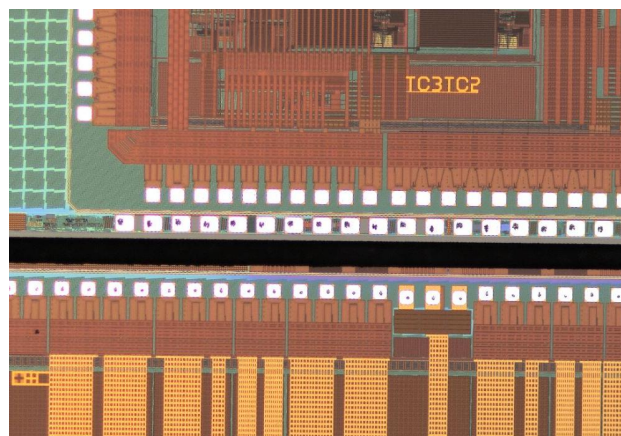
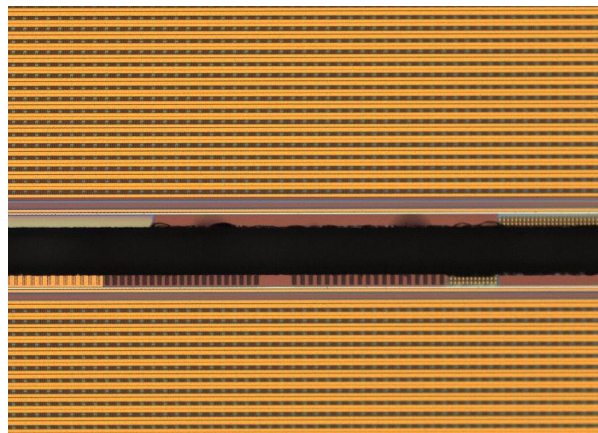
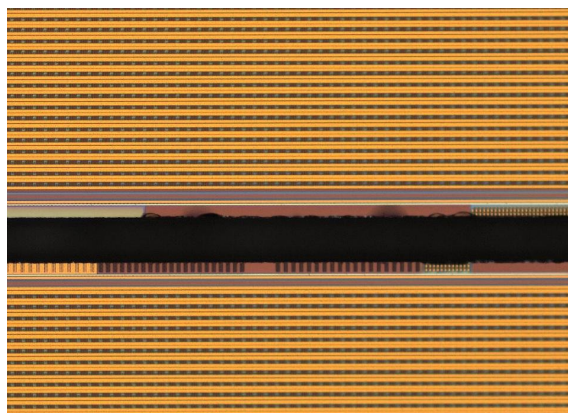
Chip dicing

- One wafer was diced(T212141-09A0,modified one)
- 105 um cutting knife
- 25~27 um was left on the edge of TaichuPix3
- The edge is uneven.
- We will test first wafer then diced the rest 4 wafers.



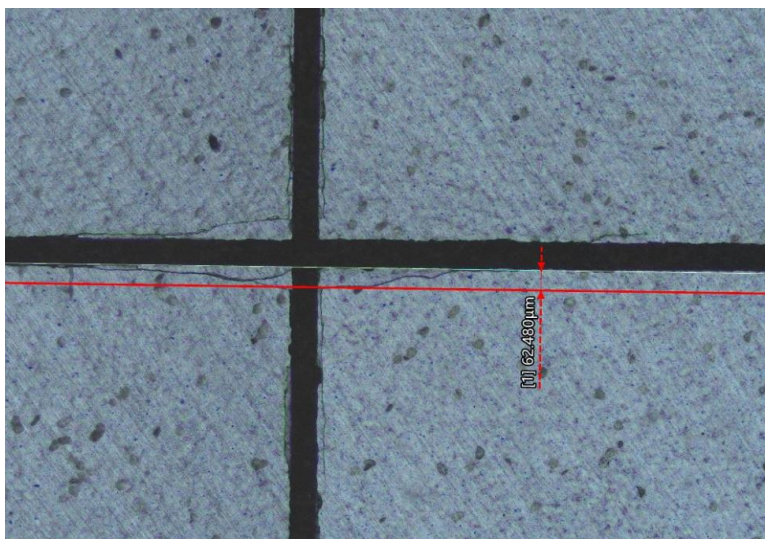
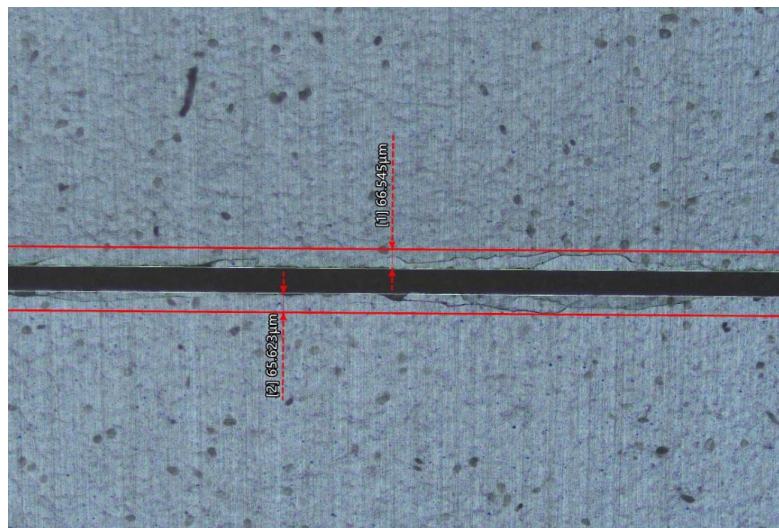
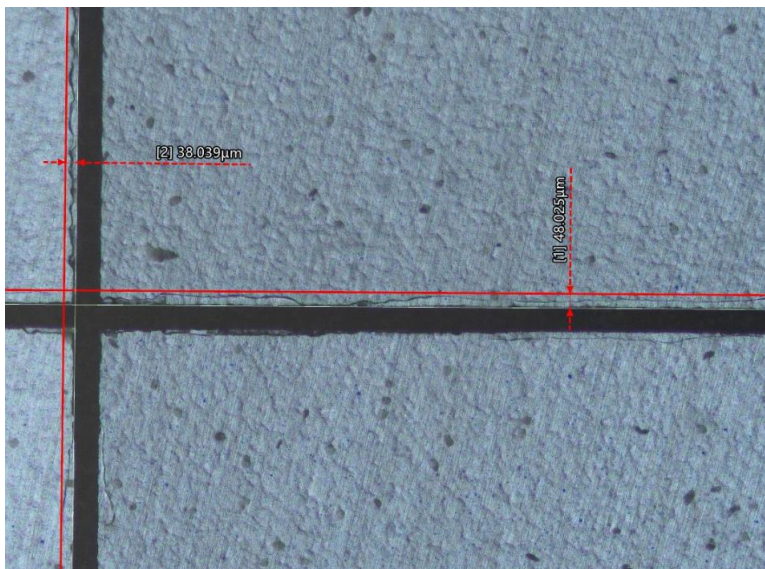


The uneven dicing edge





The uneven dicing edge backside



- Collapse the edge inward
- May hurt the chip itself
- This wafer in on the way to IHEP
- More testing to verify



Thanks for your attention!

