



company site Trutnov

2021

A close-up, high-angle photograph of a microelectronics packaging assembly. The assembly is mounted on a green printed circuit board (PCB) which is populated with various components, including a large, square, gold-colored component in the center, a smaller square component to the left, and a larger, rectangular component to the right. The components are interconnected by fine, gold-colored wires. The background is a dark, textured surface with a grid of small, square, light-colored patches.

PACKAGING solution partner

MICROELECTRONICS

OPTOELECTRONICS

SILICON PHOTONICS

Markets

INDUSTRIAL durability

AEROSPACE reliability

DEFENCE robustness

AUTOMOTIVE effectivity

HEALTHCARE accuracy





Complex solution

FEASIBILITY
DESIGN

PROTOTYPING
QUALIFICATION

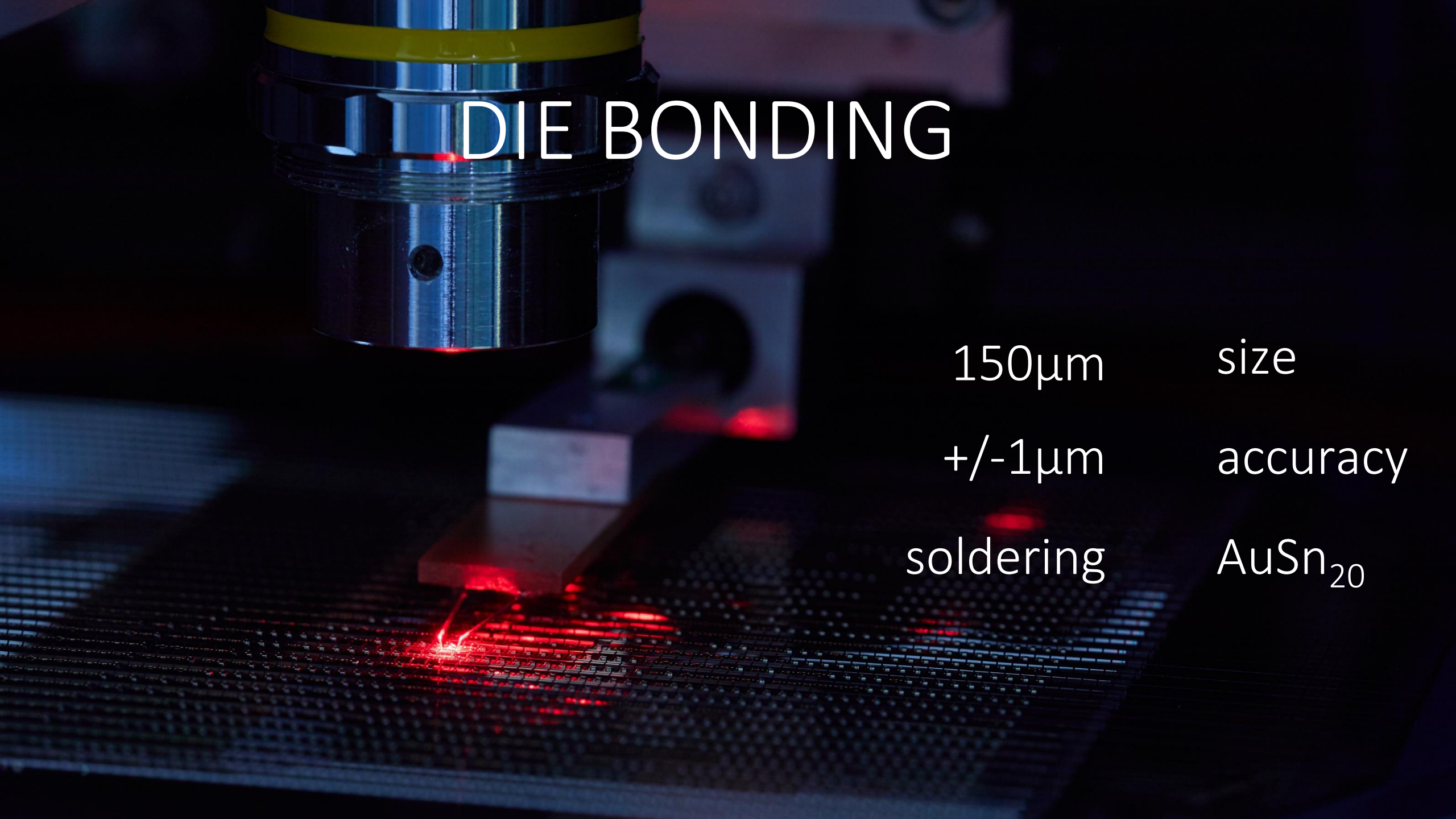
ASSEMBLY
VOLUME PRODUCTION

Technology overview

WAFER ASSEMBLY

TO PACKAGING

CMP ASSEMBLY

A close-up photograph of a die bonding machine. A cylindrical metal tool with a yellow band is positioned above a substrate. A red laser line is visible on the tool's surface. The substrate is a dark, textured surface with a grid of small, square features. A small, rectangular metal piece is being placed on the substrate. The background is dark and out of focus.

DIE BONDING

150 μ m

size

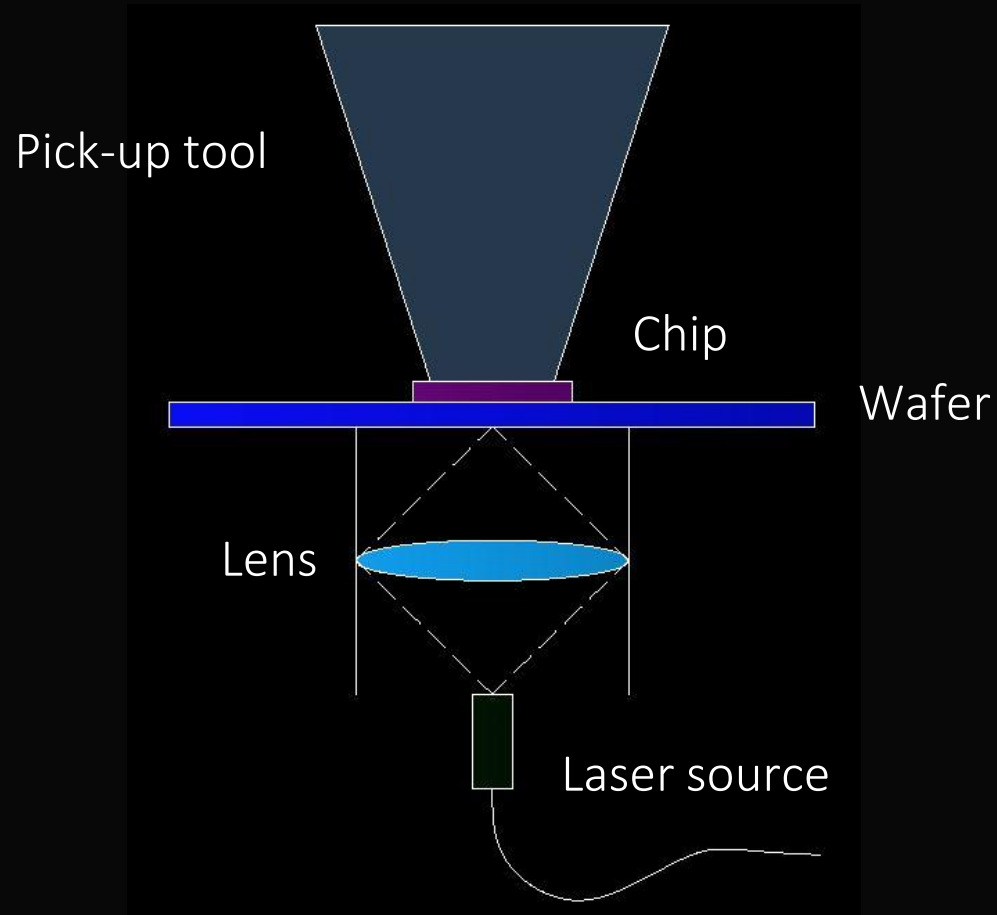
+/-1 μ m

accuracy

soldering

AuSn₂₀

DIE BONDING



150 μ m

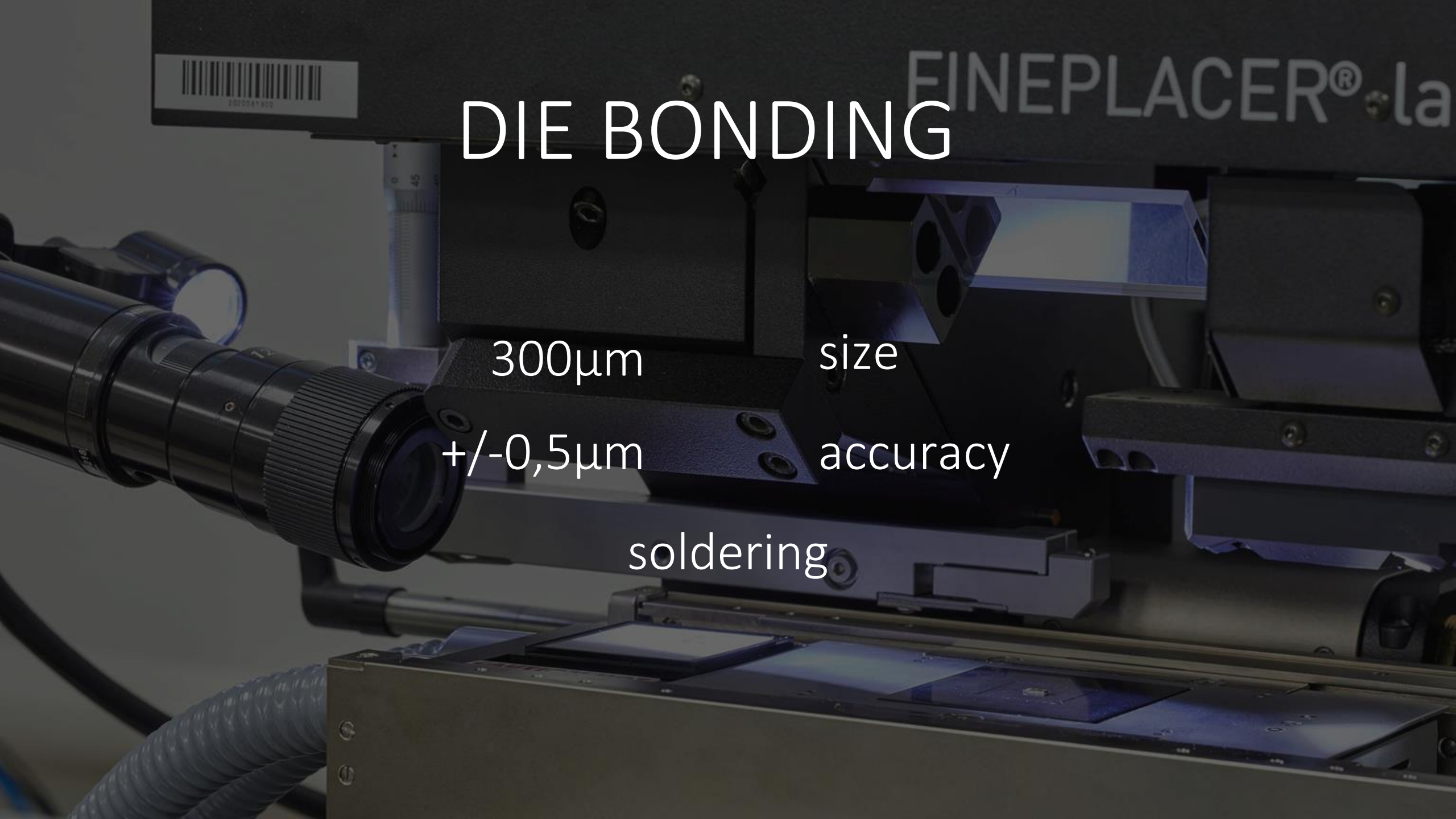
size

+/-1 μ m

accuracy

soldering

AuSn₂₀



DIE BONDING

300 μ m

size

+/-0,5 μ m

accuracy

soldering

DIE BONDING

TO level

250 μ m

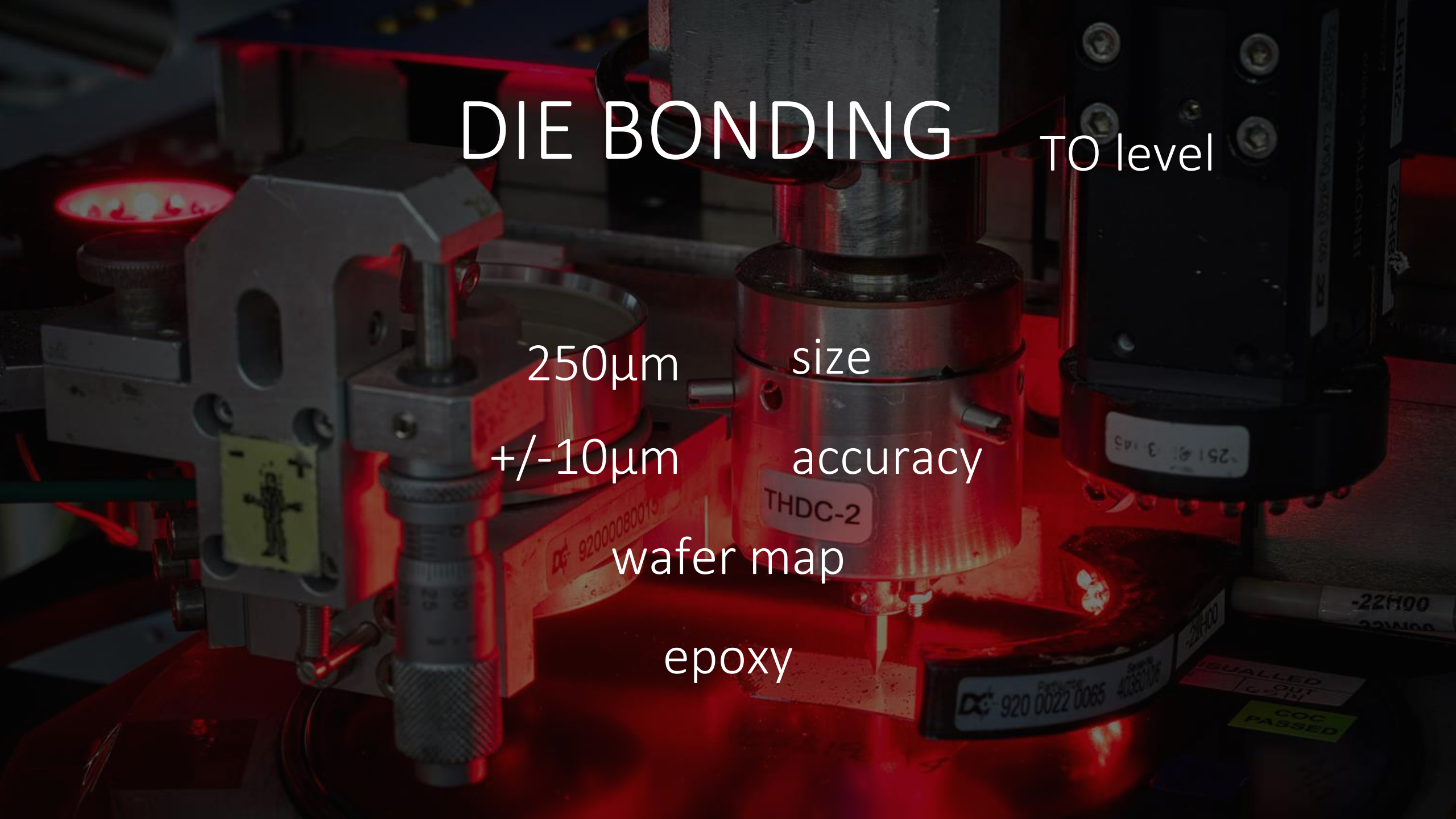
size

+/-10 μ m

accuracy

wafer map

epoxy



A close-up photograph of a wire bonding machine. A fine wire is being positioned by a precision tool over a series of parallel metal strips on a substrate. The machine components are made of polished metal, and the background is blurred.

WIRE BONDING

17+ μm

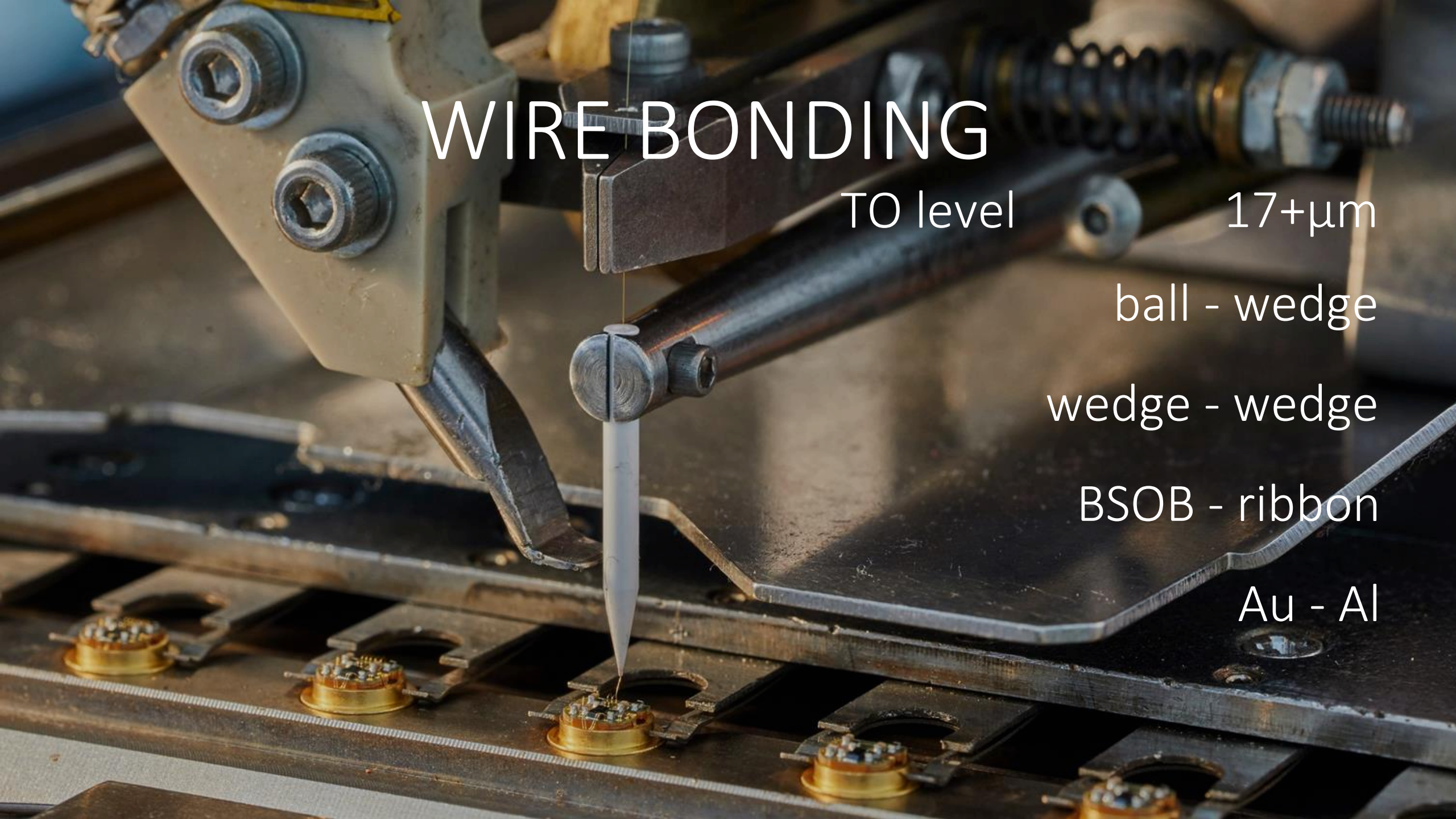
ball - wedge

wedge - wedge

BSOB - ribbon

Au - Al

WIRE BONDING



TO level

17+ μm

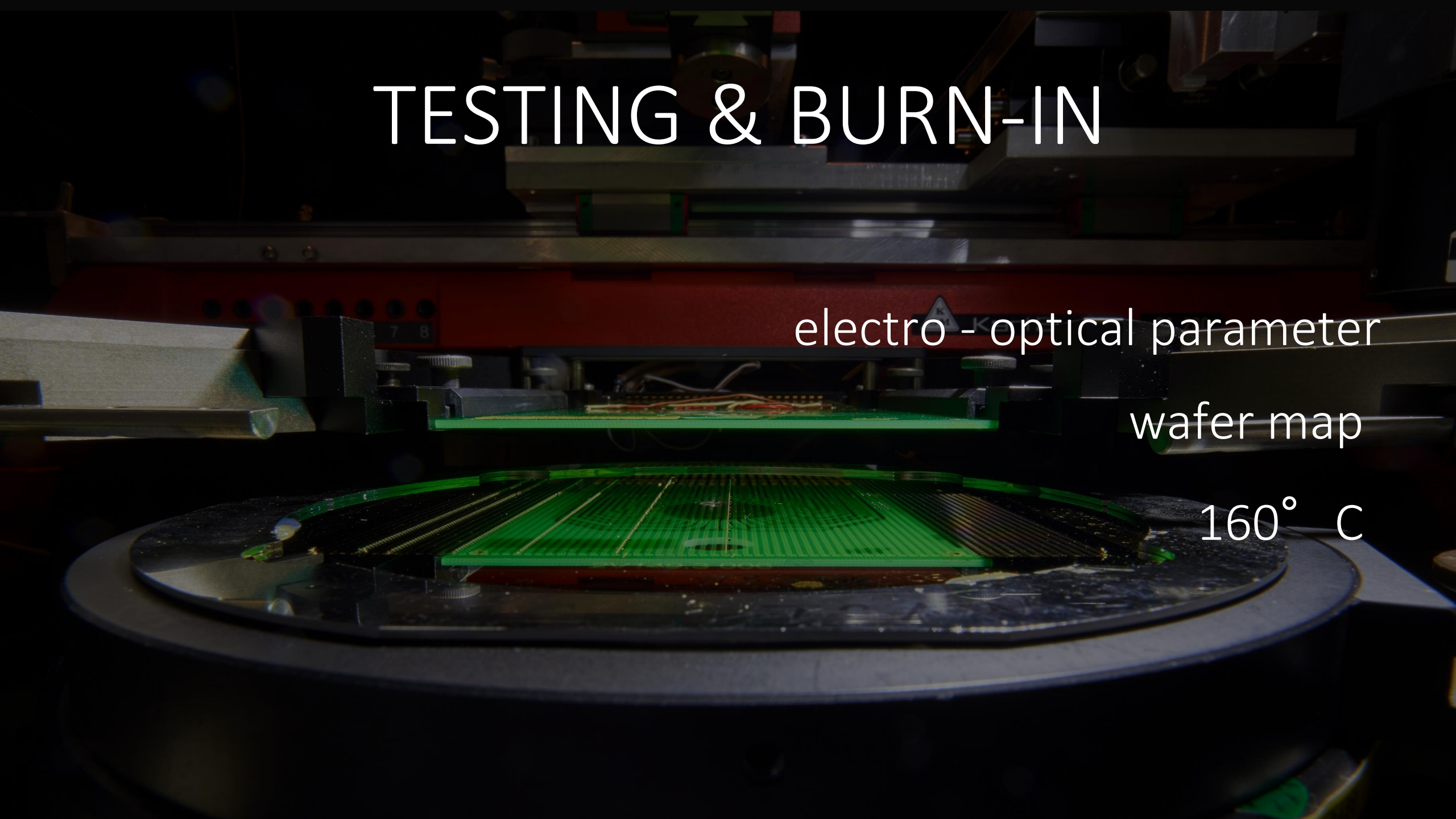
ball - wedge

wedge - wedge

BSOB - ribbon

Au - Al

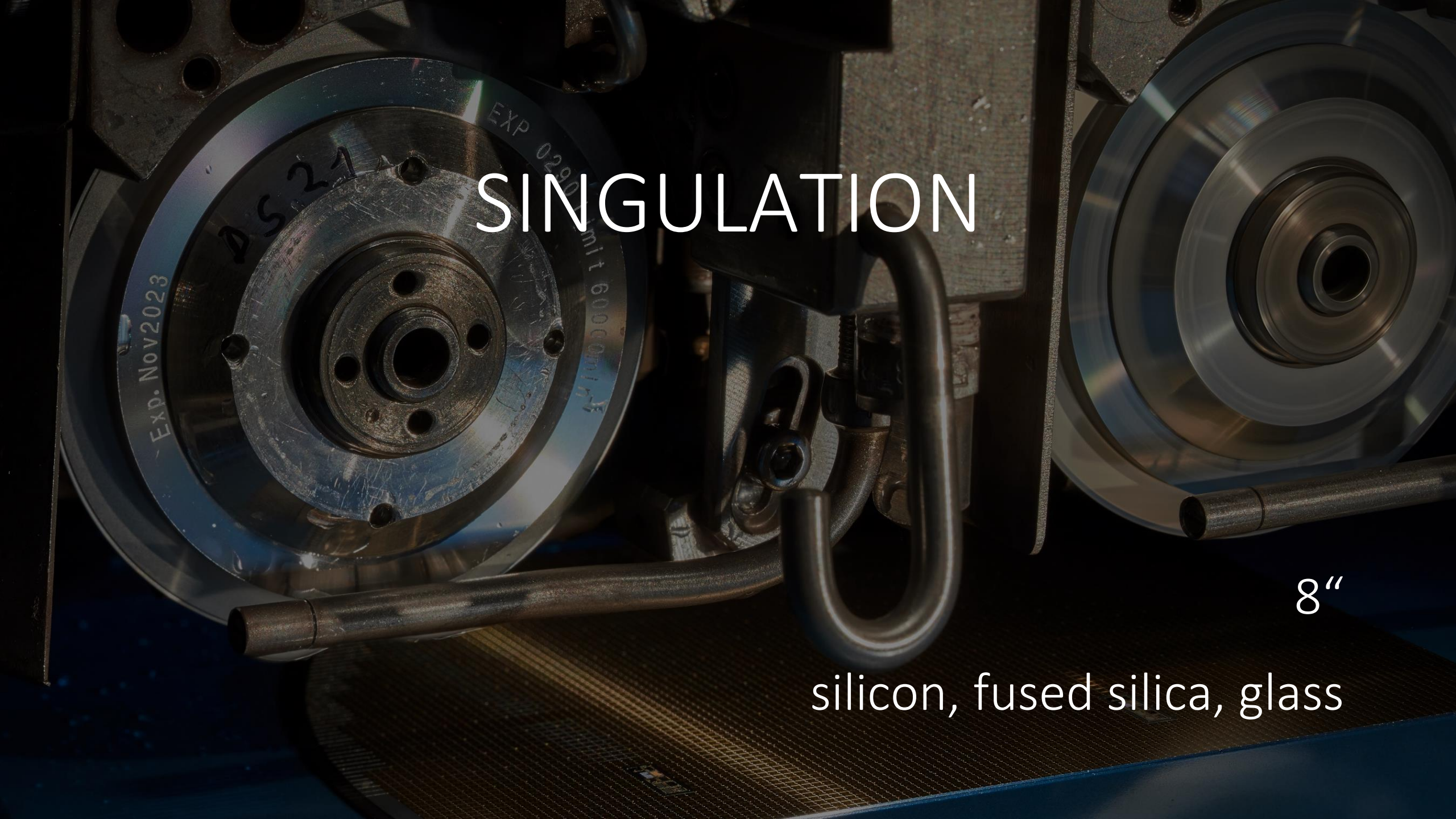
TESTING & BURN-IN



electro - optical parameter

wafer map

160° C

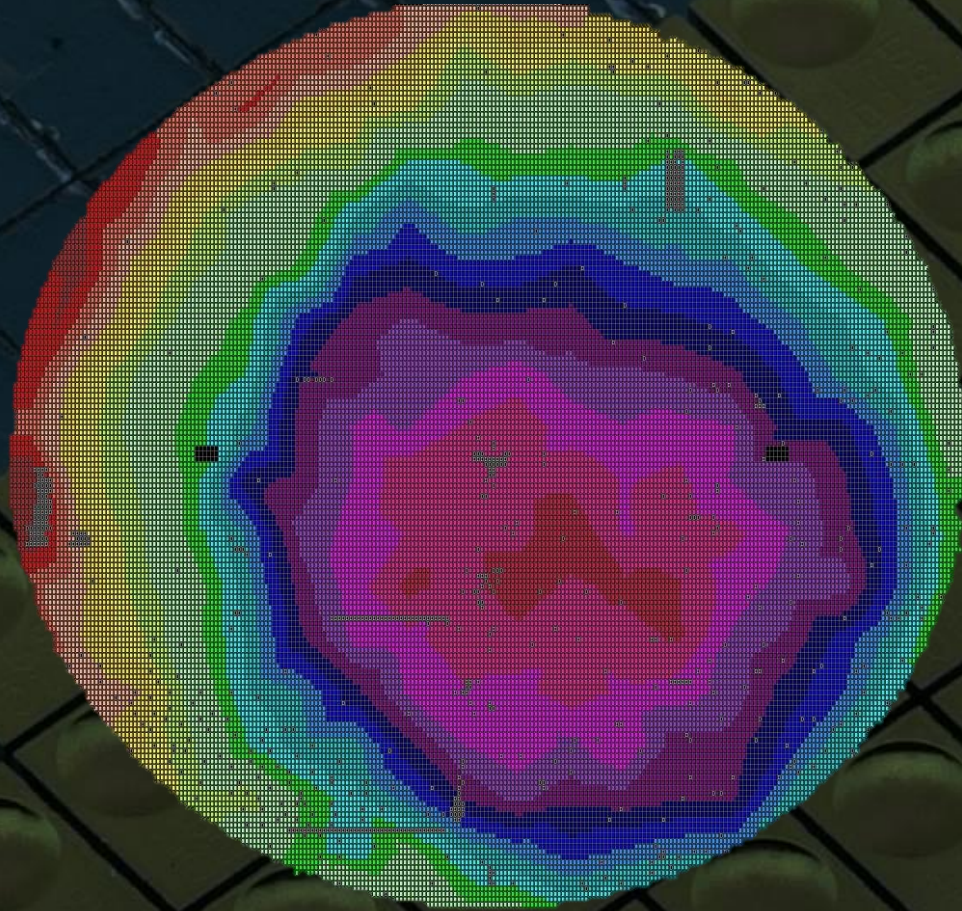


SINGULATION

8"

silicon, fused silica, glass

ACTIVE LENS ALIGNMENT

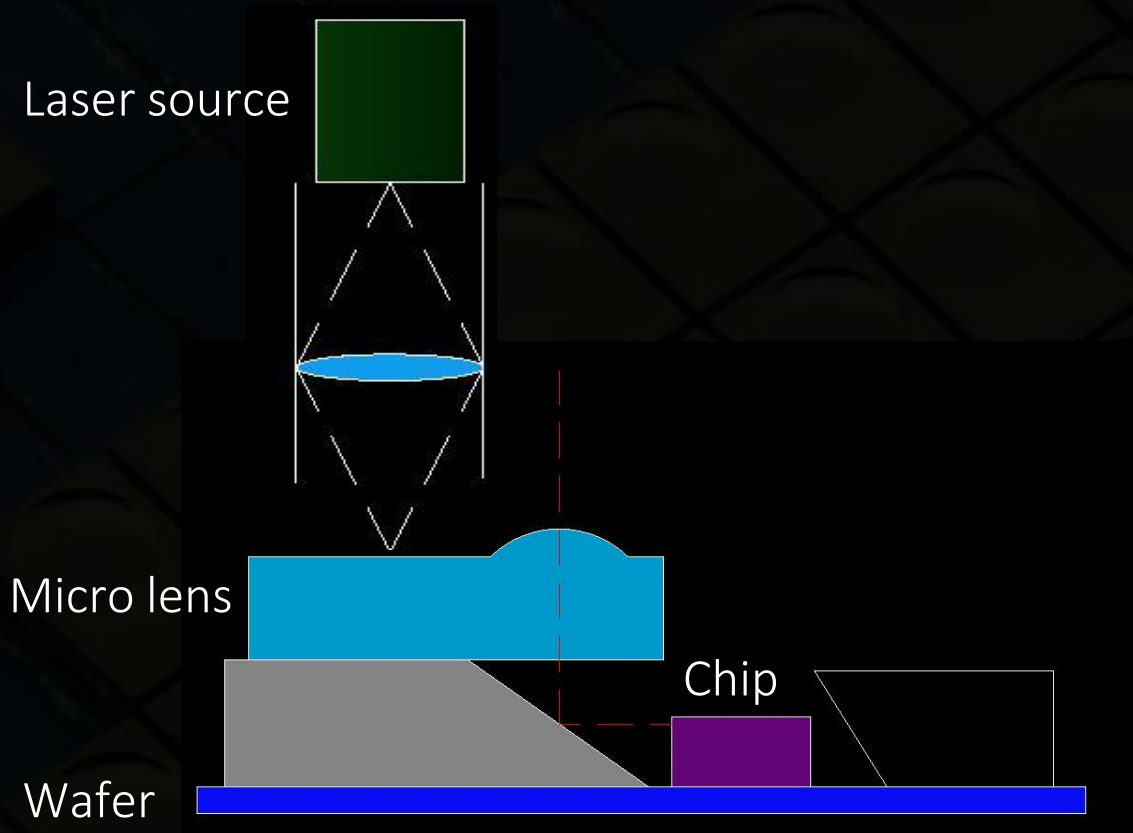


wafer map

soldering

reliable process

ACTIVE LENS ALIGNMENT



wafer map

soldering

reliable process

FIBER ALIGNMENT

CMP level

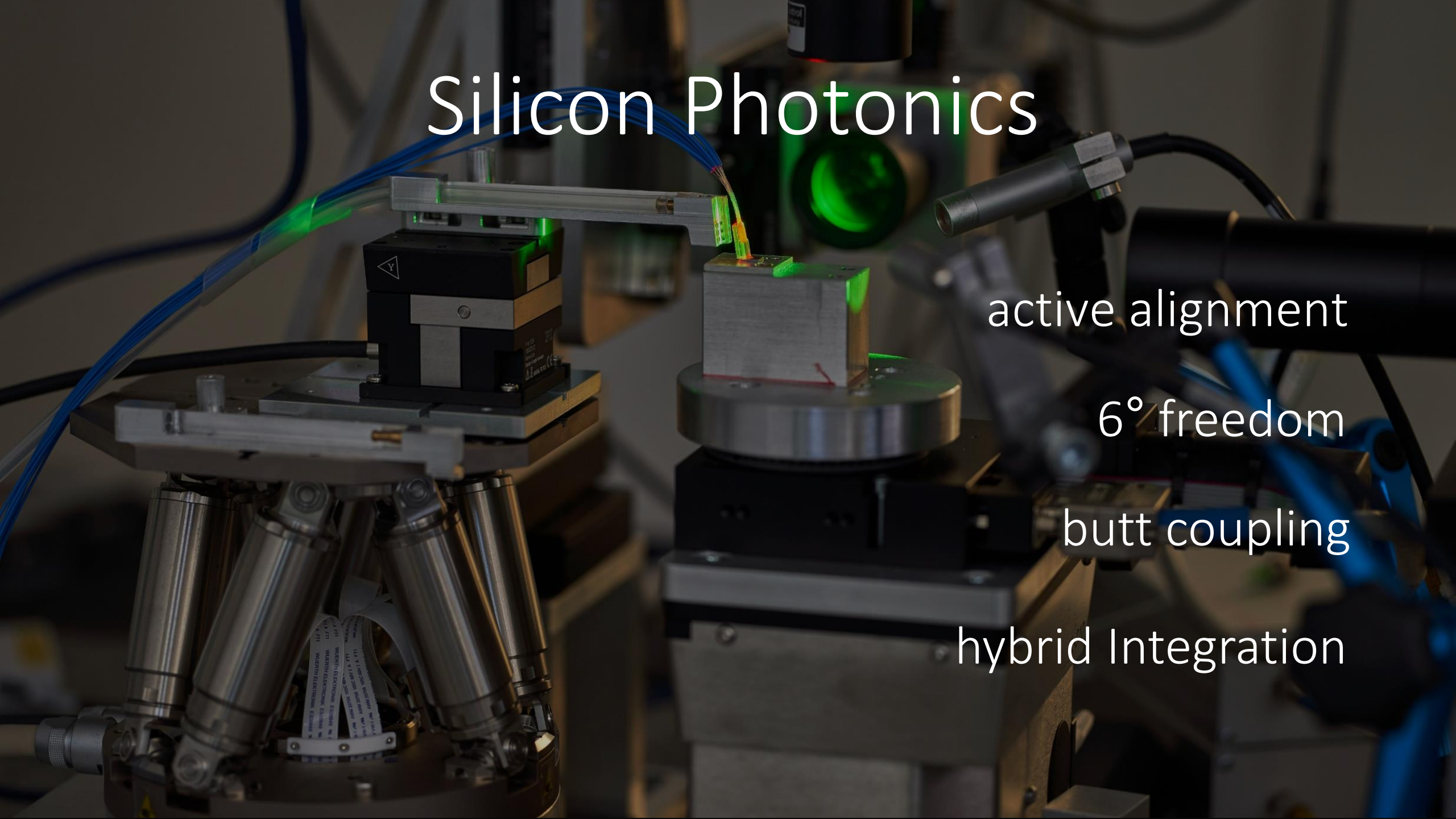
4D

0,1 μ m

laser welding

400 – 1 600nm

Silicon Photonics

The image shows a complex industrial setup for aligning optical components. A blue fiber optic cable is connected to a small green component on a stage. A green laser beam is visible in the background, illuminating the work area. The stage is mounted on a base with multiple pneumatic cylinders for fine adjustment. The overall scene is dimly lit, emphasizing the green laser light.

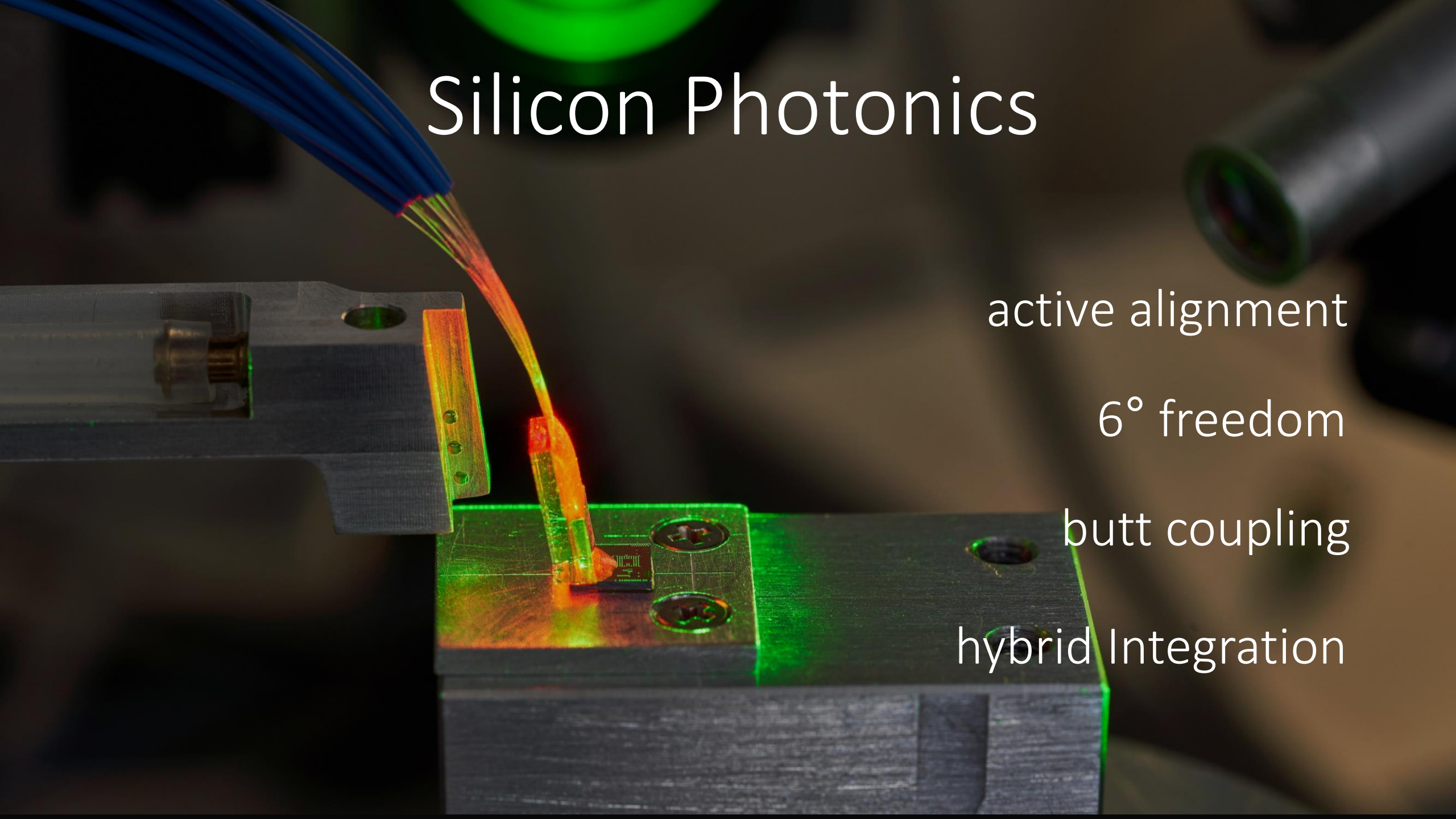
active alignment

6° freedom

butt coupling

hybrid Integration

Silicon Photonics



active alignment

6° freedom

butt coupling

hybrid Integration

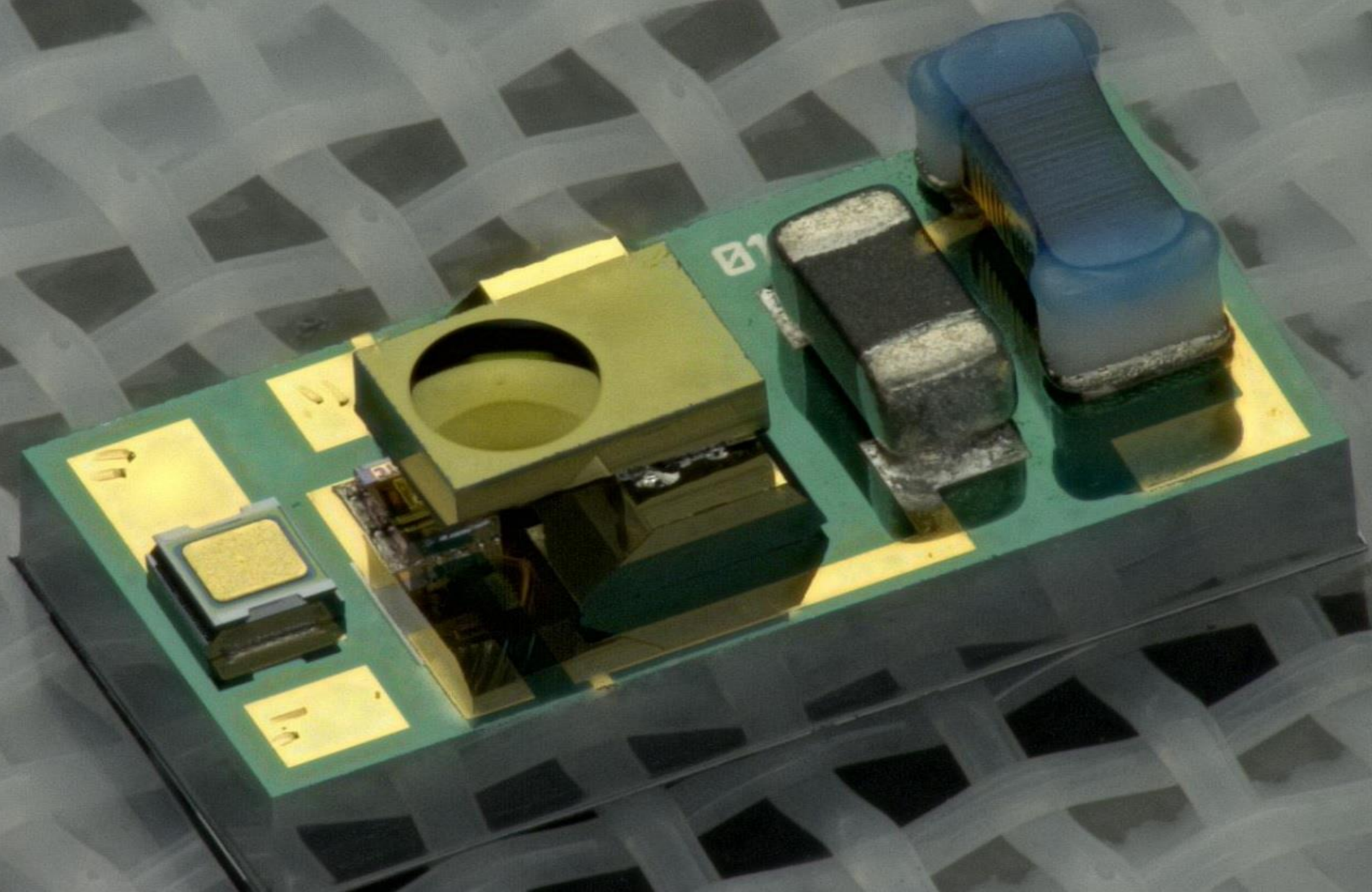
ONE
STOP
HOUSE

20 years experience

60 team of experienced staff

80 years of electronics

800 m² clean room





let US
bring YOU
SOLUTION