





**ELGOLINE d.o.o.**

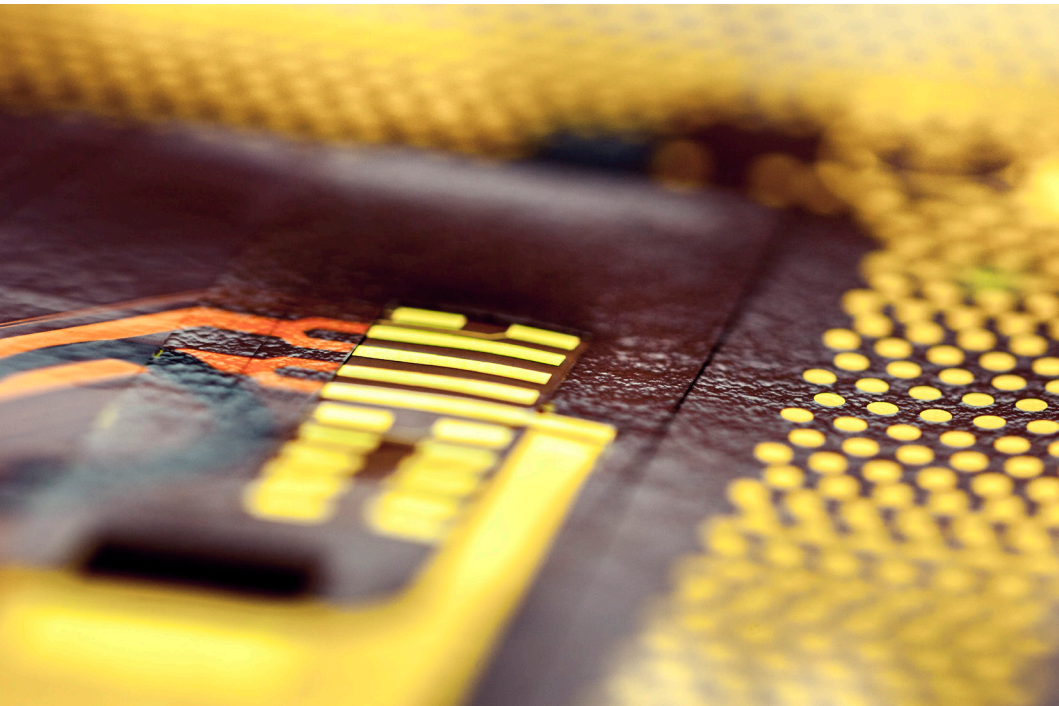
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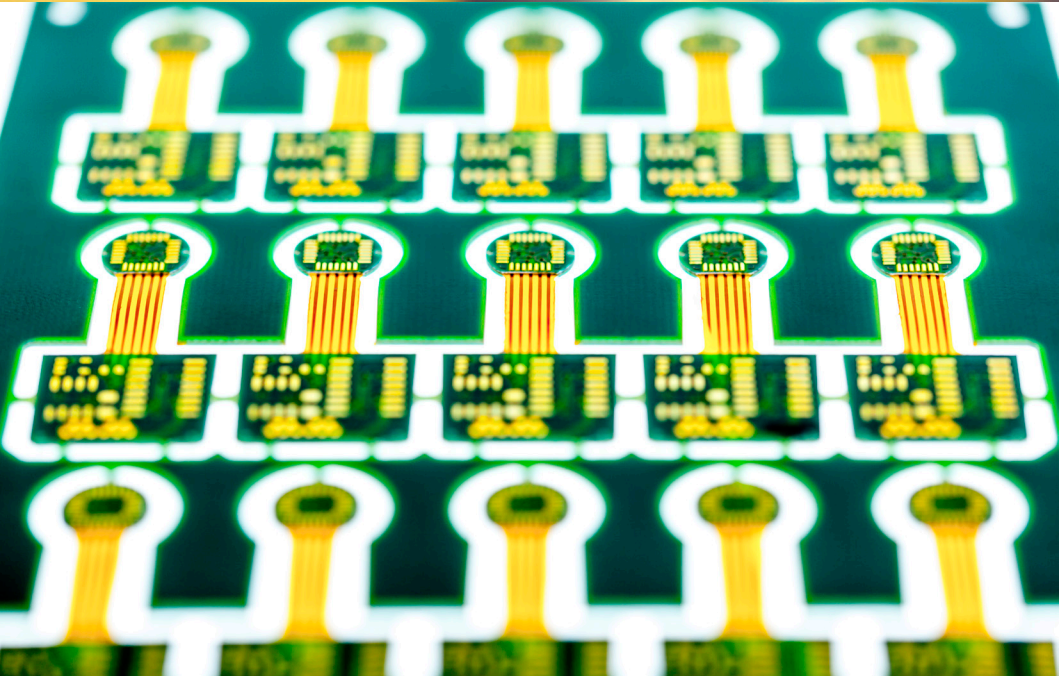
# About the Company



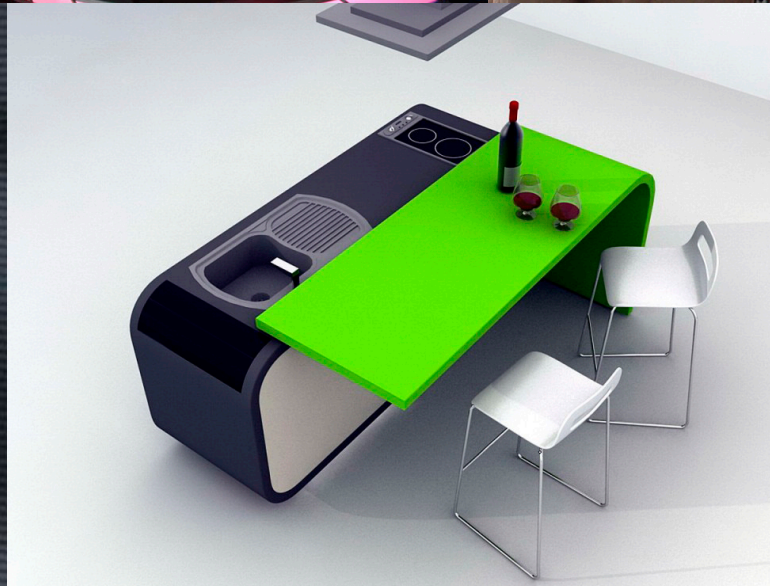
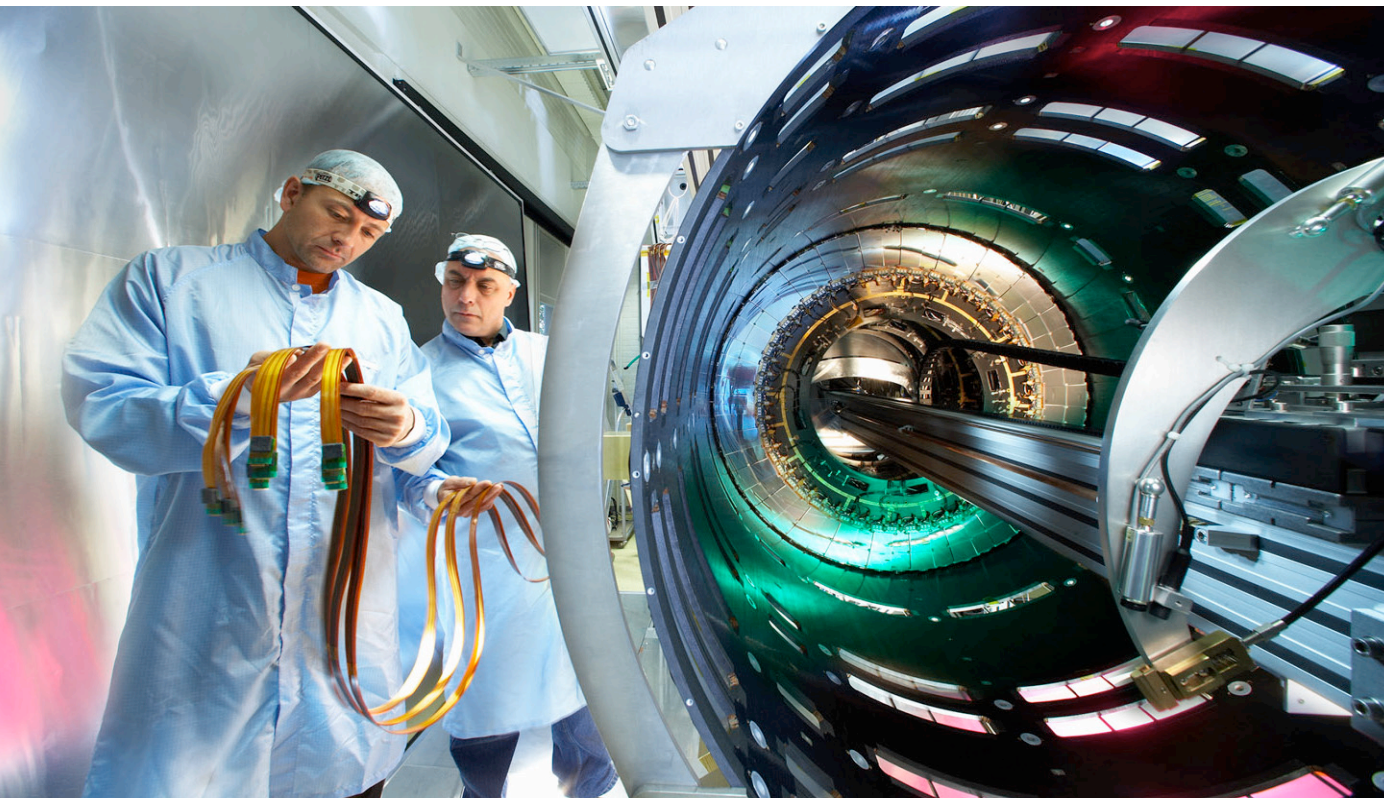
Elgoline Ltd. was founded in 1986 and has extensive experience in developing and manufacturing high quality printed circuit boards, flexible circuit boards and ribbon cables. Beside its primary manufacturing activities, the company also sells and rents its own real estate and machinery.

We are one of the leading printed circuit boards' manufacturers, providing rapid prototypes and fast deliverers within Europe. The bases of our company's development are thoughtfully defined investments, manufacturing strategies and goals. Due to the recent modernization of our production capabilities with investments in new modern equipment, we have gained a lot of knowledge in the field of manufacturing technology and development of variety of printed circuit boards.

Our research and development team is collaborating with Slovenian's leading scientific research institute, the Jožef Stefan Institute. We are very proud of our collaboration and our contribution to the project ATLAS, which is a part of Large Hadron Collider at CERN. As a result of this successful collaboration, we have received international recognition and gained a strategic position in Europe for new achievements in the electronics development.









# Goals and Vision



Our goal is flexibility in all respects. In addition to developing our own products, we strive for producing higher quality standards and continuously improving our products in accordance with international environmental standards, as well as offering the shortest possible delivery time and reliable customer support throughout the whole process, from the initial design all the way to the final product.

We support the development of electronics and electrical engineering. We continue to maintain our cooperation with scientific and educational institutions, such as the Jožef Stefan Institute and the Faculty of Electrical Engineering of the University of Ljubljana. With these partnerships we aim to take on new research projects and produce improved products for better future of humanity.







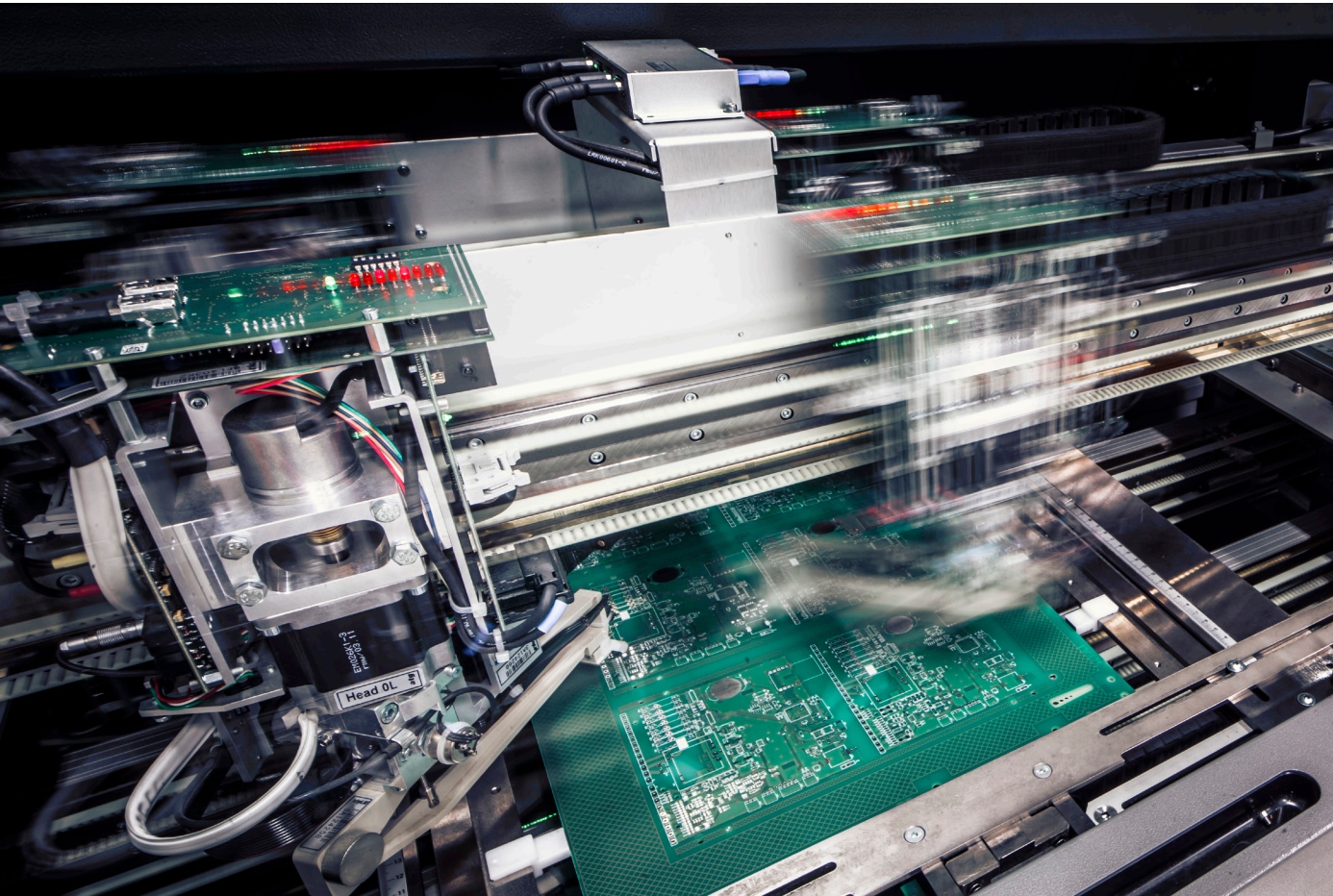
# Quality



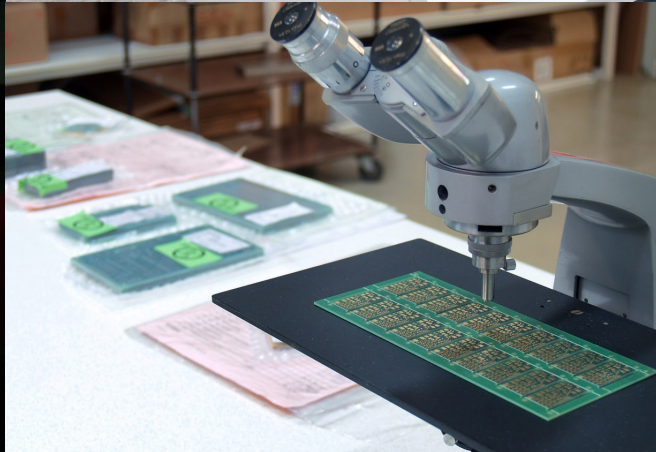
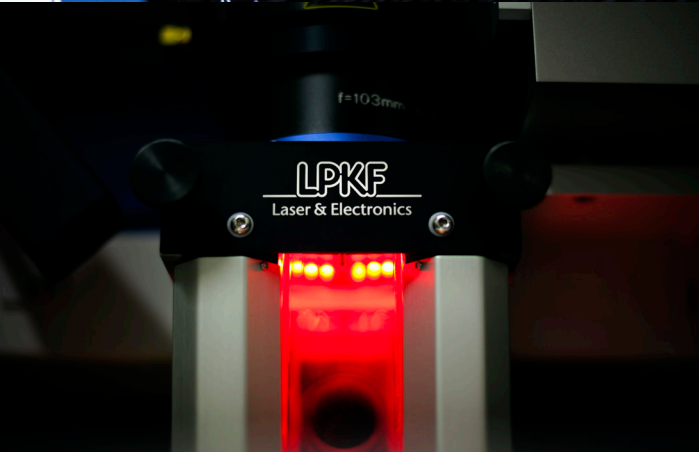
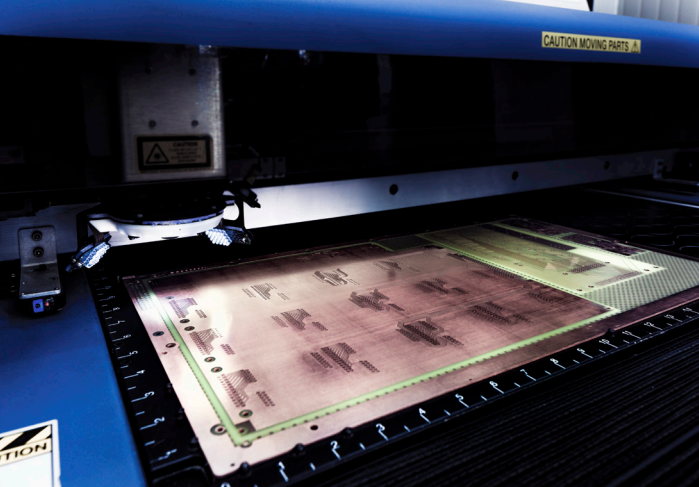
Elgoline Ltd. is one of the biggest manufacturers of printed circuit boards in Slovenia. The essential part of our strategy is producing high quality products and environmental care. We are gradually introducing the principles of the ISO 9001 quality management standard throughout our process.

Our printed circuit boards are manufactured according to the IPC-standards (IPC-A-600G). The UL Certificate assures our products are made from quality materials and are certified in international laboratories (UL Nr.: E312947). We have our own chemical laboratory, whereas specialized types of analysis are made in collaboration with certified external experts. At our customer's request, we can test physical and measurement properties of printed circuit boards and prepare various reports.

All processes within the company are documented and traceable through our quality assurance system.









# Technical Capabilities of PCB



## Requirement attribute

**Board Type:**

**Nr. of conductive layers:**

**Laminate Materials:**

**Max board size**

**in production:**

**Total board thickness:**

**Inner layer thickness:**

**Min line width, space:**

**Copper Foil Thickness on**

**outer layers:**

**Copper Foil Thickness on**

**inner layers:**

**Diameter of drilled holes:**

**Finished hole diameter:**

**Metallization Aspect Ratio:**

**Blind Via Aspect Ratio:**

**Solder resist:**

## Product capability

Single -, Double sided, Flex, Teflon, Multilayer, High Freq, MetalCore,...

Up to 18

FR4, Halogen free, CEM1, CEM3

High-freq materials

High Tg/CTI materials

Alu materials

PTFE, Rogers, Brass, Titanium,

Polyimide, Stainless

610 x 457 mm for ML

1200 x 457 mm for SE and SD

5000 x 340 mm for flex

0,20 mm – 3,2 mm

0,10 mm – 1,6 mm

75  $\mu$ m (25  $\mu$ m)

12  $\mu$ m – 105  $\mu$ m, 210  $\mu$ m, 400  $\mu$ m

12  $\mu$ m – 105  $\mu$ m

0,15 mm – 6,40 mm

0,10 mm – 6,35 mm

12 : 1

1 : 1

Green matt and glossy, Black matt and glossy, White, Blue, Red, Yellow (Min. gap in fine-pitch 50  $\mu$ m)

## Requirement attribute

**Legend Print:**

**Peelable Solder Mask:**

**Via filler:**

**Carbon print:**

**Surface Finishes:**

**Tolerances:**

**Quality Management:**

## Product capability

White, Green, Yellow, Black, Red, Blue

Peters Blue

with solder resist

40 Ohm  $\pm$  5%

HAL Lead Free

HAL Tin-Lead

Immersion NiAu (ENIG)

Immersion Ag

Immersion Tin

OSP

Hard gold

Routing  $\pm$  0,10 mm

Scoring  $\pm$  0,10 mm

Etching  $\pm$  10%

Hole Tol. (Press fit)  $\pm$  0,05 mm

UL conformance

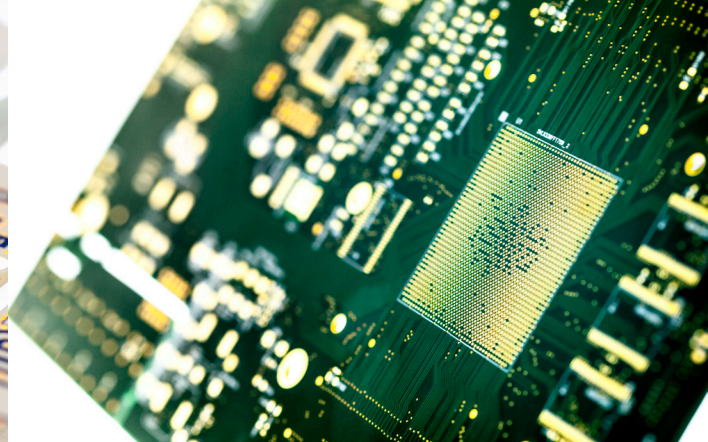
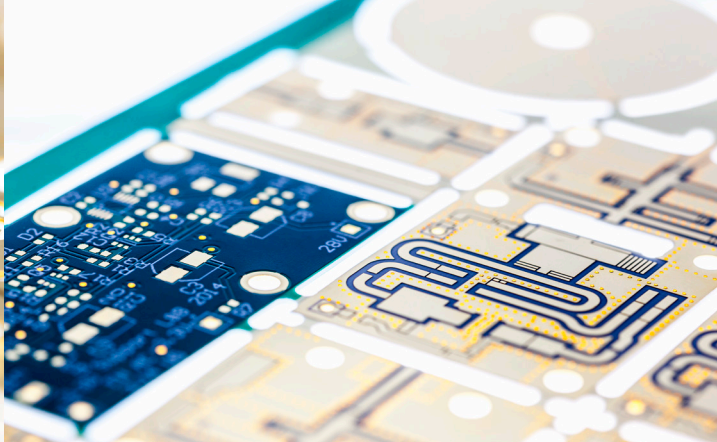
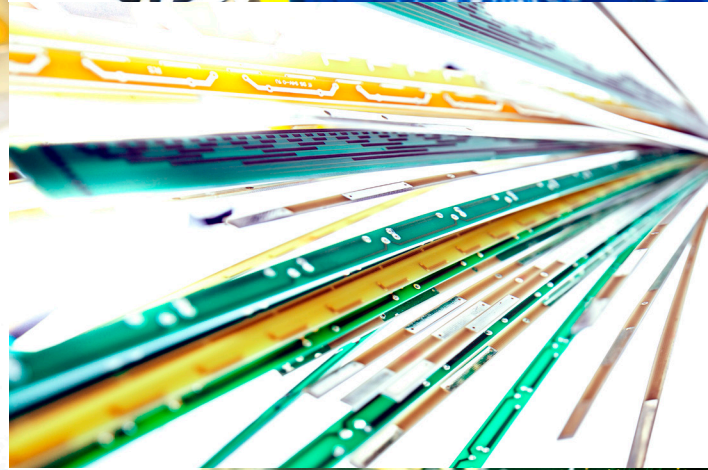
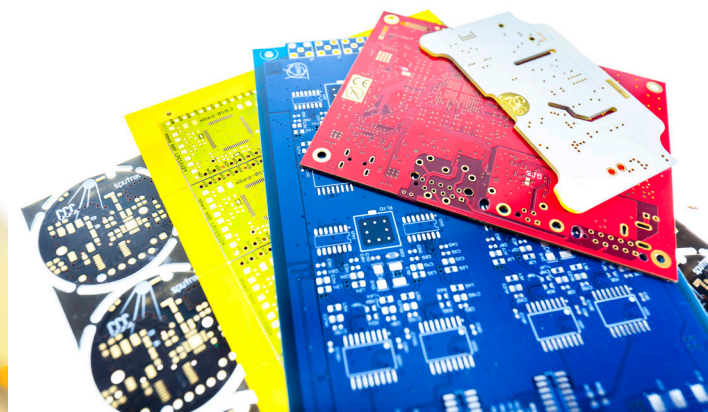
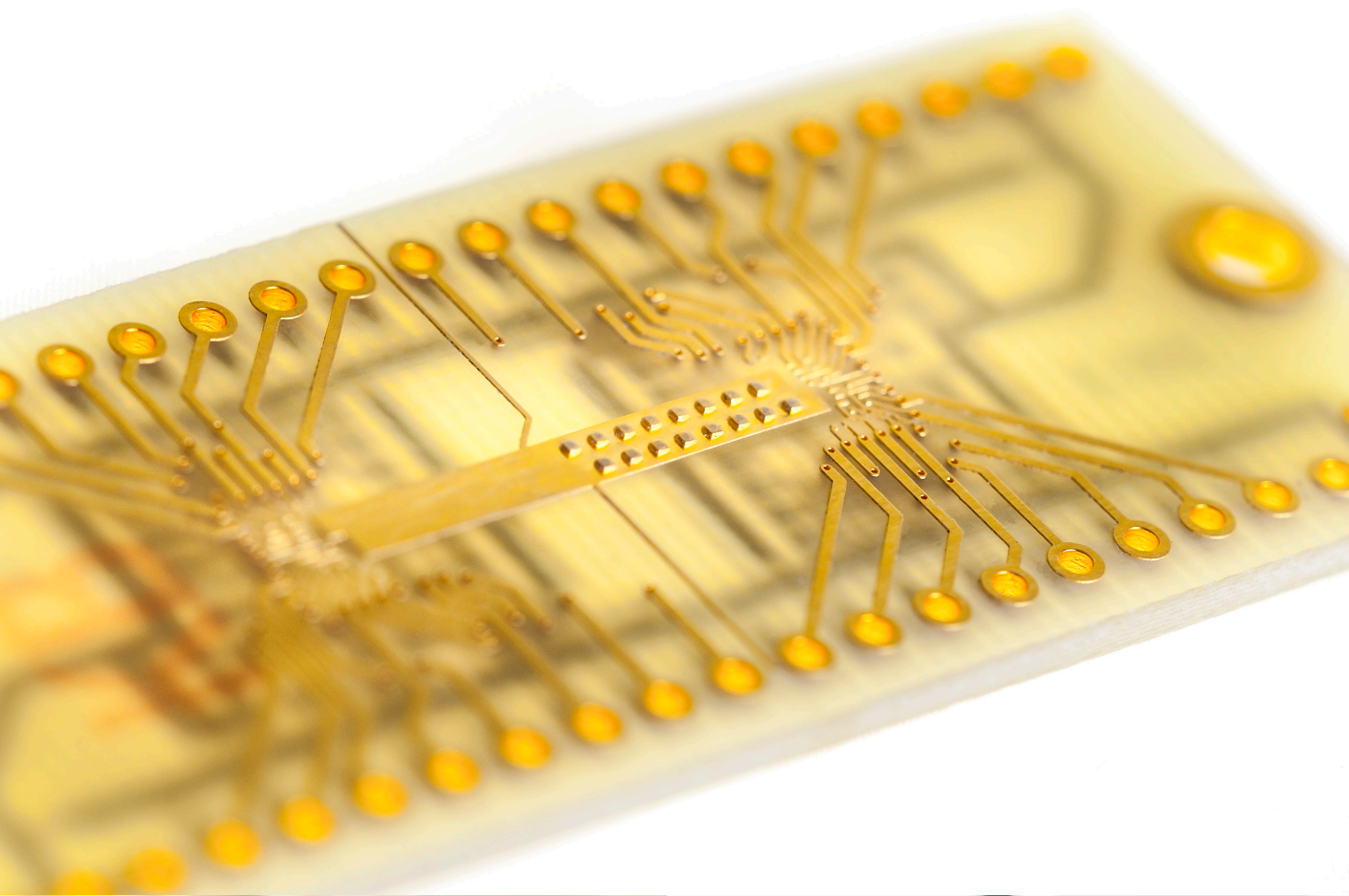
Micro section

Automatic Optical Inspection

CCD

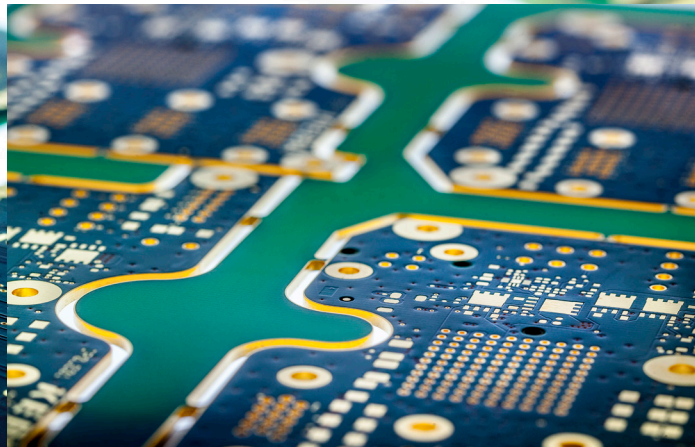
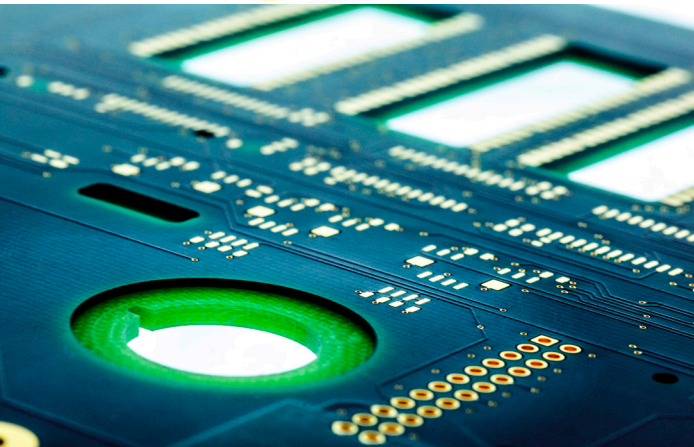
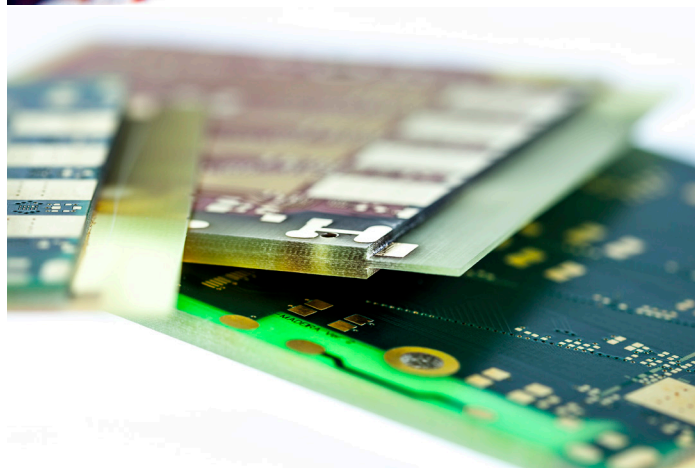
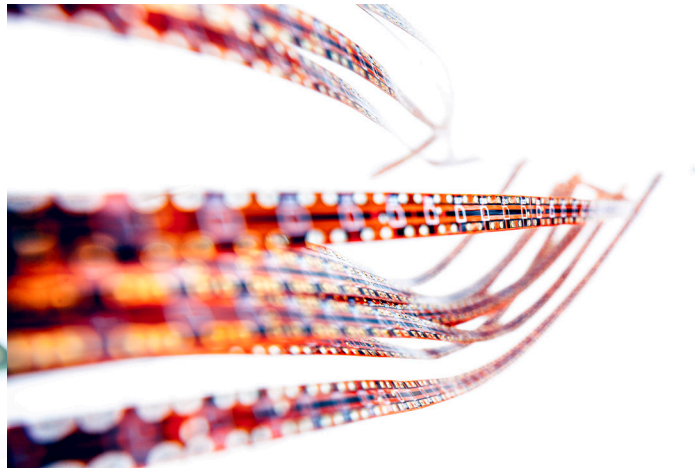
Electrical Testing







# Special Features of Our Products



- Thick copper PCB
- Embedded PCB
- BGA raster 0.5
- Spacing 75  $\mu\text{m}$
- Edge plating
- Deep routing
- High-freq materials
- Brass / titanium / stainless etching
- Blind Via
- Burried Via
- Via in pad
- Plugged Via
- PRESS FIT
- Jump scoring
- Rigid-flex PCB
- Flex - boards
- Ribbon cables (up to 5 m)
- PCB up to 1.2 m



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