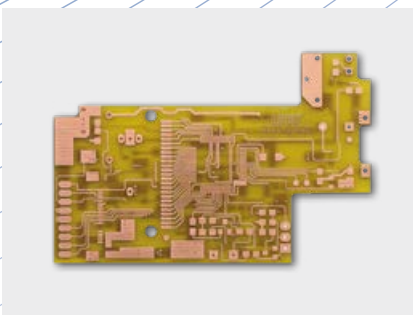
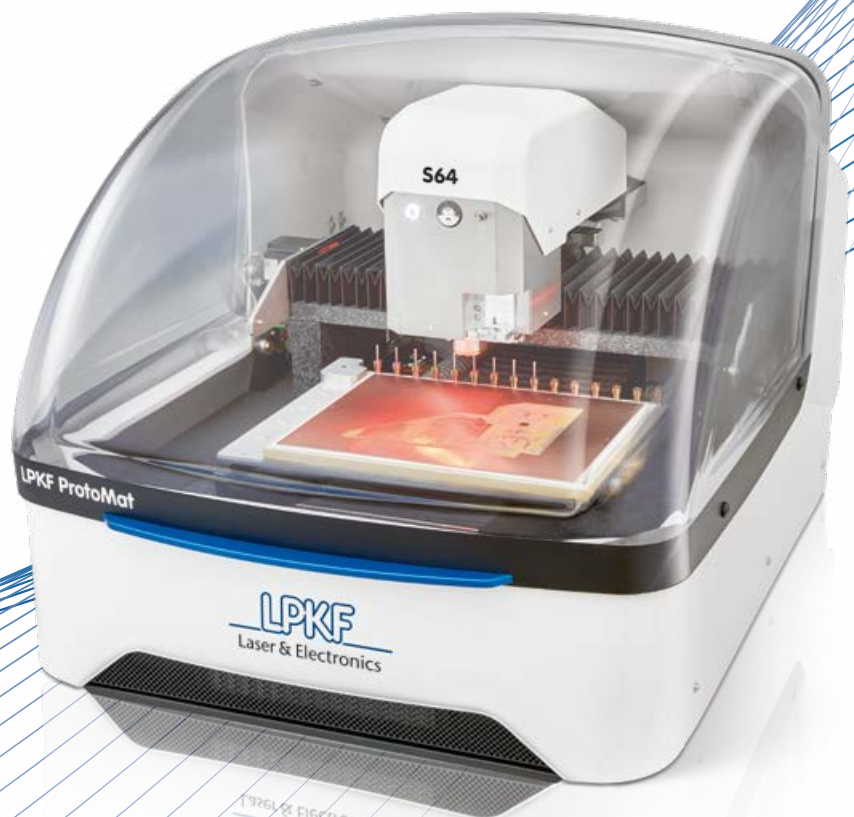


The Standard for Rapid PCB Prototyping

LPKF ProtoMat S64 Circuit Board Plotter

- Fully automatic operation incl. automatic tool change
- Low-maintenance high-speed milling spindle
- Intuitive, integrated system software
- Camera controlled fiducial recognition and milling depth/width control
- Granite base for highest accuracy results



LPKF ProtoMat S64 – The Standard for PCB Prototyping

The system that sets the standard for almost all in-house PCB prototyping applications: The ProtoMat S64 convinces with speed and reliability. The highspeed of the low-maintenance milling motor guarantees the production of fine structures as small as 100 µm and allows the production of multilayer boards when used in conjunction with a lamination press. Additional standard features, including dispenser and vacuum table, make the ProtoMat S64 the perfect addition to any development environment.

60 000 RPM Spindle Motor

The milling spindle with 60 000 RPM guarantees the shortest machining times and highest geometric accuracy. It is low-maintenance due to the new pneumatic self-cleaning function for the motor and milling depth sensor. The granite machine base also ensures consistently accurate results.

Automatic: Tool Change, Milling Depth/Width Adjustment, Dispensing

Up to 15 tools – more if required – can be changed automatically during the production process. Depending on the depth, the conical milling cutters generate different insulation channels. The automatic milling width adjustment ensures that the milling contour has a constant width. This shortens the setup time and enables operator-free performance.

Sensors in the ProtoMat S64 ensure optimally controlled, exact milling depth and also monitor the tool change process.

Housing parts can be machined in up to 2.5 dimensions. If required, the integrated dispenser can automatically apply solder paste to solder pads. Additional data calculation is not necessary.

Integrated, Intuitive Operating Software

The ProtoMat system software is highly flexible and easy to use. A parameter library for different materials supports the easy machine operation. If required, the integrated process guide leads the user step by step through the machining process.

LPKF ProtoMat S64

Max. layout area (X/Y/Z)	229 mm x 305 mm x 8 mm (9" x 12" x 0.3")
Max. material size (X/Y/Z)	250 mm x 330 mm x 26 mm (9.8" x 13" x 1")
Mechanical resolution (X/Y)	0.5 µm (0.02 mil)
Repeatability	±0.001 mm (±0.04 mil)
Milling spindle	Max. 60 000 RPM, software-controlled
Tool change	Automatic, 15 positions
Milling width adjustment	Automatic, micro switch ± 1 µm (0.04 mil)
Tool holder	3.175 mm (1/8")
Drilling speed	100 strokes/min
Travel speed (X/Y)	150 mm/s (6"/s)
X/Y-drive, Z-drive, tool feed	3-phase stepper motor, 2-phase stepper motor, 2-phase stepper motor
Solder paste dispense rate	≥0.3 mm (≥0.011") (solder point), ≥0.4 mm (≥0.015") (pad)
Dimensions (W x H x D), weight	680 mm x 560 mm x 800 mm (26.8" x 22.0" x 31.5"), 95 kg (210 lbs)
Power supply	90 – 240 V, 50 – 60 Hz, 450 W
Compressed air supply	Pressure min. 6 bar; consumption 75 l/min @ 6 bar

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