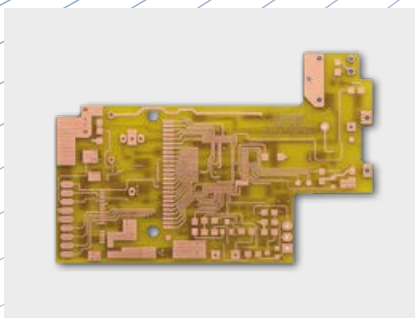


# Allrounder for Rapid PCB Prototyping

## Circuit Board Plotter LPKF ProtoMat S64

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



# LPKF ProtoMat S64 – Allrounder for PCB Prototyping

The basic system for almost all in-house PCB prototyping applications: The ProtoMat S64 convinces with speed and reliability. The high speed of the low-maintenance milling spindle guarantees the production of fine structures up to 100 µm and allows the production of multilayers. The extensive equipment, including dispenser and vacuum table, makes the ProtoMat S64 the perfect addition to any development environment.

## Milling Spindle 60 000 RPM

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

## Automatic: Tool Change, Milling Width Adjustment, Dispensing

Up to 15 tools – more if required – can be changed automatically during the production process. Depending on the intrusion 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 set-up 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 fully 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. material size and layout area (X/Y/Z)	229 mm x 305 mm x 8 mm (9" x 12" x 0.3")
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)
Operating conditions	
Power supply	90 – 240 V, 50 – 60 Hz, 450 W
Compressed air supply	6 bar; 200 Liter @ atmospheric pressure

