

## LPKF ProtoMat® S42 Entry level system for precision PCB prototypes

- Advanced rapid in-house PCB prototyping on the desktop
- Easy operation with quick-release tool change
- Vacuum table and fiducial recognition available

# Economical high performance

## LPKF ProtoMat® S42

The LPKF ProtoMat® S42 introduces a new entry-level circuit board plotter for in-house rapid PCB prototyping. This compact system provides precision and performance for quickly and easily milling and drilling circuit board prototypes in a single day. In-house PCB prototyping eliminates production delays and the high cost of outside vendors, reducing a product's development time and time-to-market dramatically. Design data also remains securely in-house and under control. The LPKF ProtoMat® S42 in particular is a perfect entry-level tool for educational and other settings where economy is a critical issue.

### Ideal for colleges and technical schools

The LPKF ProtoMat® S42 is an excellent tool for colleges and technical institutions, allowing students and instructors to produce printed circuit boards that are production quality and chemical free, immediately in the classroom environment. Low consumable costs, instant turnaround, and no need for external vendors encourages more practical exercises and experiments in the classroom or laboratory.

### Performance

Each LPKF ProtoMat® S42 is carefully calibrated at the factory for unsurpassed overall accuracy. As a result, the plotter can mill and drill all types of PCBs with fine traces, using reliable, well-tested technology.

Its milling head travel speed of 50 mm (approx. 1.97") per second and high-performance 42,000 RPM spindle motor makes it an excellent entry-level performer for producing quality PCBs in-house.

### Convenience and easy handling

The LPKF ProtoMat® S42's simple operation is quick and easy to master. Board production can begin within minutes of switching on the machine, and it requires no external air compressors or other products. A standard RS-232 or USB cable connects the LPKF ProtoMat® S42 to any compatible Windows computer.

### Integrated head lighting

Shadow-free illumination of the milling area from integrated head lighting makes direct quality control faster and easier. Accuracy for double-sided boards can be increased with the addition of an optional fiducial recognition camera, as well.

### CAM software included

Each LPKF ProtoMat® S42 includes LPKF CircuitCAM Lite and BoardMaster software for importing PCB data from any CAD package and for controlling the operation of the plotter. This easy-to-use software, developed by LPKF, processes the same data sent to PCB manufacturers.



# Options

All options can be easily retrofitted on-site by the user.

## Acoustic cabinet

LPKF acoustic cabinets reduce noise and dust emissions, making the LPKF ProtoMat® S42 even more ideal for CAD offices and electronics prototyping laboratories.



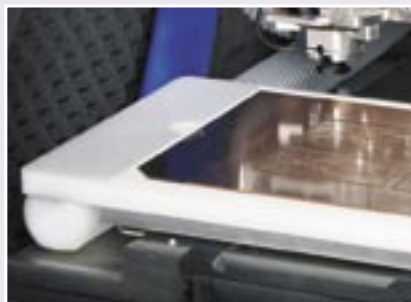
## Fiducial recognition camera system

Increase the registration accuracy of the LPKF ProtoMat® S42 with the addition of a fiducial recognition camera system. The system includes a compact camera, interface hardware, and driver software.

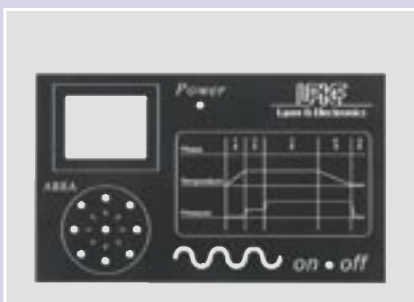


## Integrated vacuum table top

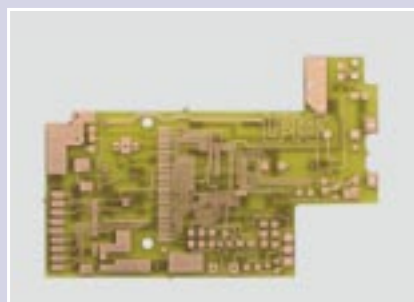
Maintain precision and workpiece stability with an integrated vacuum table top. The honeycomb structure assures even pressure to hold all sections of the workpiece with an even pressure against the milling surface.



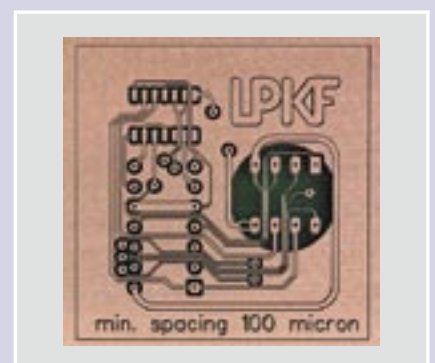
# Applications



Front panel engraving



Single-sided and double-sided mixed signal boards



Printed circuit boards with 100  $\mu$ m lines and spaces

## Technical Data LPKF ProtoMat® S42

Working area (X/Y)	229 mm x 305 mm (9" x 12")
Resolution	7.5 µm (0.3 mil)
Milling motor speed (rpm)	42,000
Tool change	manual
Tool collet	3.175 mm (1/8")
Drilling speed (holes per minute)	90
Travel speed (max distance per second)	50 mm (1.97")
X/Y positioning system	2-phase stepper motors
Z-Drive	Solenoid
Dimensions (W/H/D)	580 mm x 480 mm x 620 mm (22.8" x 18.9" x 24.4")
Weight	43 kg (94.8 lb)
Power Supply	120/240 V, 50-60 Hz/200 VA
Hardware and software specifications	Microsoft® Windows® 2000/XP, 700 MHz processor or higher, min. 256 MB RAM (512 MB recommended), screen resolution min. 1024 x 768 pixels, USB 2.0
Subject to technical modifications.	

LPKF Laser & Electronics AG  
Osteriede 7  
D-30827 Garbsen  
Germany

Phone +49 (0) 51 31-70 95-0  
Fax +49 (0) 51 31-70 95-90

info@lpkf.de  
www.lpkf.com

---

LPKF-Distributor