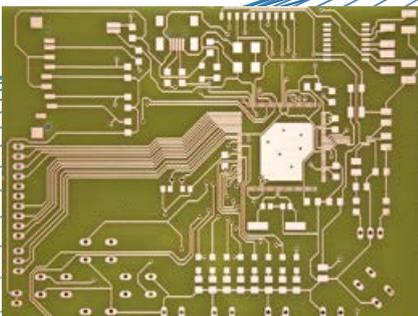


Specialist for RF and Microwave Applications

LPKF ProtoMat S104

- Top fully automated model
- Available speed of up to 100 000 RPM
- 20 tool change positions
- Optical fiducial recognition
- Integrated vacuum table
- Easy to use package
- Granite base for highest accuracy results



Specialist for RF and Microwave Applications

With comprehensive features for electronics labs: The LPKF ProtoMat S104. Thanks to the high-performance spindle and a vacuum table, it is also suitable for RF applications, thin laminates as well as substrates with a sensitive surface (conducting path widths up to 100 µm on FR4 18/18 Cu). In addition, the system processes front panels and housings as well as populated PCBs in 2.5D and provides deep etching in circuit boards.

Fast, Precise, and Fully Automatic

Drilling and milling of even very fine structures: ProtoMat S104 is fast and very precise with a rotation speed of up to 100 000 RPM, high stroke speed and high mechanical resolution. The high-frequency spindle and milling depth sensor are low-maintenance since they are self-cleaning. Easy-to-use = everything is automatic: material and copper thickness measurement, milling width adjustment, tool change. The solder paste application with the dispenser is carried out without any additional data processing. Quick setup and operator-free workflows ensure short process times.

Intuitive: CircuitPro Advanced Software

The system software is highly flexible and easy to use, among others due to the parameter library for materials. The calculations meet the high requirements of RF applications.

LPKF ProtoMat S104	
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	± 5 µm (± 0.2 Mil)
Milling spindle	Max. 100 000 RPM, software-controlled
Tool change	Automatic, 20 positions
Camera accuracy	1.8 µm/Pixel
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)
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	100 – 240 V, 50 – 60 Hz, 250 W
Compressed air supply	Min. 6 bar; 75 l/min @ 6 bar (min. 90 PSI); 75 l/min @ 90 PSI
Environmental conditions	20 °C – 25 °C; max. 90% air humidity
Solder paste dispense rate (optional)	≥ 0.3 mm (≥ 0.011") (solder point), ≥ 0.4 mm (≥ 0.015") (pad)
Software	LPKF CircuitPro Advanced
Options and accessories	Dust extraction unit, compressor, status light, measuring microscope, dispenser

