



The AXT 80K opens up a new avenue for PCB prototyping in the laboratory. The combination of laser and mechanical advantages makes PCB prototyping much easier. Drilling, routing and engraving of PCBs can be done in minutes with a single machine.

The AXT 80K is equipped with a high-performance spindle. The servo motor on all axes and the automatic 12-tool changer guarantee a very fast drilling and routing speed. The camera integrated in the machine allows the precise position for the laser engraving to be determined. Since the drilling and structuring processes are carried out with the same vision and positioning system, we can guarantee optimum precision.

Thanks to its chemical-free process, printed circuit boards can be produced in just a few minutes without burning the substrate. The production of RF and microwave circuits, in particular, benefits from a regular, straight-edged etching, which allows a perfect match of the circuit to the simulation results. Thanks to the vacuum base, flexible materials can be positioned and held freely. The AXT 80K is also suitable for FPCs or multilayer PCBs. AXT 80K can perform various applications like Rapid Prototyping, Technology Research, Teaching, Student Project, PCB Engraving/Milling, model making, Antenna Prototyping and more

With its powerful data processing Trackmaker software CAM and driver software and your PCB design software, the realization and prototyping of your PCBs becomes simple and fast!



## **New Age of PCB Inhouse Rapid Prototyping AXT 80K**

### **Features:**

- High efficient Spindle Drilling and Routing with 80,000 rpm
- Full automatic tool change with 12 tool boxes
- High advanced Motion System with servo motor,
- Highest mechanical resolution and accuracy
- Flat Aluminum base with central T-slot
- Most compact and powerful
- Excellent unibody for sound reduction during mechanic processing





**AXT 80K Technical Specifications**

<b>Working area (X x Y x Z)</b>	<b>310 x 230 x 30 mm</b>
<b>Max. PCB Size</b>	260 x 180 mm
<b>Min. line width</b>	0.1 mm (depend on material)
<b>Min. space</b>	0.05 mm (depend on material)
<b>Structuring speed</b>	12 cm <sup>2</sup> /min (depend on material)
<b>Min. hole diameter</b>	0.2 mm
<b>System repeatability</b>	± 0.005 mm
<b>Collet Size</b>	3.175 mm
<b>Motion control resolution</b>	0.5µm
<b>Tool changer</b>	12 tool bases automatic changer
<b>Traveling speed of X Y axis</b>	150 mm/s
<b>Drilling speed</b>	120 drills per min
<b>Routing speed</b>	5mm/s (depend on material and thickness)
<b>Spindle</b>	Spindle speed 80,000 rpm, software controlled servo motor with pneumatic clamp
<b>Z Depth Regulation</b>	Able to make antennas due to micrometer depth regulation
<b>Laser wavelength</b>	1064 nm Fiber laser
<b>Laser power</b>	0-20 w
<b>Axis drive</b>	X,Y,Z axis with hybrid servo motor
<b>Power supply</b>	220VAC 50Hz, 1600 W
<b>Compressed air supply</b>	Min. 6 bar; 80 L/min @ 6 bar
<b>Dimension (L x W x H)</b>	800mm x 810 mm x 690 mm (without signal light)
<b>Cabinet</b>	Metal cabinet with acrylic front window
<b>Weight</b>	45 kg
<b>Connectivity</b>	USB

**Configuration & Option**

Vision and automatic positioning system: standard

Vacuum table: standard

Metal housing and granite table: standard

Quadratic element measure (basic function): standard

Data processing software CAM: standard (D & X, Excellon, ODB++, Gerber, DXF, HPGL and more)

Machine operation software: Trackmaker USB dongle based perpetual license, it can perform machine control and CAM operations (G-Code generation, editing and modification of CAD Data) All necessary CAD/CAM packages included to test full capability of PCB and antenna prototyping.

External quiet vacuum cleaner: Software controlled Vacuum cleaner with automatic on/off switching with spindle and HEPA Filter 0.4Kw single phase motor and tank capacity of 1 Liter



**Standard Tool Set and Consumables**

