

# GETECH

"Performance, Value, Integrity"

Call us on +65 6756 0777

OVER 30 YEARS IN THE INDUSTRY

# GBR MAX GETECH BOTTOM ROUTER - MAX

## TOTAL SOLUTION FOR ROUTER BUSINESS

As a world leader in PCB Depaneling systems, GETECH presents the latest model GBR Max. An in-line fixtureless machine designed for routing of Large PCB panels (1200 mm x 400 mm).



## FEATURES

**FIXTURE-LESS ROUTER**

**HIGH ACCURACY & QUALITY CUT**

**IN-LINE AUTOMATION READY**

**HIGH-SPEED ROUTING & THROUGHPUT**

**AUTOMATIC CONVEYOR WIDTH ADJUSTMENT**

**AUTOMATIC TOOL CHANGE AND TOOL MEASUREMENT**

**HIGH RELIABILITY PCB GRIPPING SYSTEM**

**HIGH-RESOLUTION CAMERA**

**POWERFUL DUAL VACUUM SYSTEM**

**CE CERTIFICATION**



ISO 9001: 2015

Cert.No 622220

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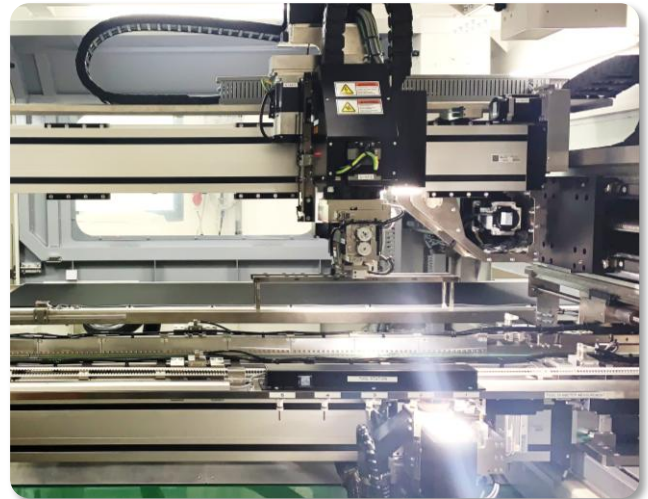
## GBR MAX Getech Bottom Router - Max

The Getech Bottom Router has proven its utility as a PCB Depanelling system and a point of work balance acting as a cutting system, a handling system, a sorting system while keeping the demand for operators to a minimum. As the world of electronics permeates our lives, the demand for miniaturization, smaller and faster, is being complemented by larger and longer form factor panels that exceed the norms of manufacture. Many EV and Solar applications have resulted in larger form factor electronics with extreme dimensions. To meet this need, Getech launches the GBR Max. The GBR Max can accommodate PCBs up to 1200mm in length.

Unlike many machines designed for large format PCBs, the GBR Max is the only one that uses a multi-stage robotic gripping system to handle the PCB. This means the need for Large, Heavy, and cumbersome fixtures is removed. No Fixtures Required !!! The multi-stage handling means the gripper is positioned at the point closest to the cutting location maintaining PCB stability and minimizing any movement during cutting. An under PCB support mechanism stops the PCB from "Sagging under its own weight," The output flat belt is stretched to accommodate the total PCB length.

The GBR Max may very well be the largest PCB router globally, but it is certainly the largest Fixtureless PCB router available today. Another Getech First...

Local Agent:



## SPECIFICATIONS

<b>Routing Capability</b>	Non-routing Speed	: 1000 mm/sec
	Routing Speed	: 100 mm/sec max (depending on the material, cutting quality & tool diameter)
	Repeatability	: Typical ±0.1 mm for straight lines, curves, et al. Under controlled conditions, ±0.05 mm
<b>Manipulators</b>	Configuration	: 9 axis
	Manipulator Motors	: AC brushless servo motors
	Manipulator Repeatability	: ±0.02 mm
	Resolution	: ±0.01 mm
<b>Workstation</b>	Design	: Fixtureless - Bottom Routing, In-line
	Panel Positioning	: Conveyor rail clamping (Top and Side) and Board gripping
	Panel Size	: 1200 × 400 mm (Min. width = 70 mm)
	Panel Thickness	: 0.8 mm – 5.0 mm
	Component Height	: Top max. 70 mm, Bottom max. 17 mm
PCB Max. Weight	: 5 Kg	
<b>Spindle System</b>	Spindle Motor	: 0.5 kW (60,000 rpm) spindle with ESD / Ceramic bearings
	Tool Change	: Auto-Tool Change
	Cooling	: Ambient cooled
	Router Bit	: Shank size 3.175 mm (1/8")
<b>Gripper System</b>	PCB Pick & Place	: Servo Gripper
	Gripper Finger Change	: Manual
<b>Dust Filtration System</b>	Power	: 2 x 2.55 kW rotary vane vacuum blower
	Filtration	: 3-stage filtrations with disposable filter bag (10 microns)
	Vacuum Location	: Bottom vacuum on the spindle
	Extraction Hose (X2)	: ID 51 mm (2"), L= 4M
Noise Level	: <78 dB	
<b>Vision System</b>	Video Camera	: High-resolution CCD video camera
		: Fiducial mark verification/confirmation, Bad mark recognition
<b>Programming</b>	System Platform	: Windows® based Industrial PC (Win 11)
	Product Setup	: Vision-assisted point-to-point manual teaching; Vision-assisted editing function; Test-run mode
	Variable Functions	: Barcode support (1D or 2D), Autoloading of last product. Other options are available.
<b>Operation Monitor</b>	Router Bit	: Tool life tracking, Tool breakage detection, Routed board count, Tool diameter check
	Vacuum	: Vacuum filter change alarm
	Machine	: Machine error history
<b>Conveyor System</b>	Incoming Conveyor (Lane 1)	: Belt-type edge conveyor (Left to Right)
	Conveyor Width Adjustment	: Automatic (Front rail – Fixed, Back rail – Auto adjust)
	Conveyor Height	: 940 mm to 965 mm (37" – 38")
	Outgoing Conveyor (Lane 2)	: Flat Belt - exposed length of 1200 mm (default, options available)
	Lane 2 Options	: According to customer demand
Communication	: SMEMA	
<b>Safety Features</b>	E-stops, Spindle stop, Spindle motor overheat & Servo overload detection, Enclosed work area with safety doors	
<b>Dimensions &amp; Utilities</b>	Machine Size	: 1980 W x 1940 D x 1830 H mm
	Vacuum Tank Size	: 2 x 400 Ø x 800 H mm
	Weight	: Approx. 2010 kg (Main) + Approx. 140 kg (Conveyor, Waste Bin, 2 Tanks)
	Power Supply	: 3+N+E, 380–415V 50Hz, 10 kW (CE)
	Air Supply	: 6 bars