

Getech Machine Quoteation.

GSR Series standalone routing systems



Customer.

Jabil Corporate 2018/19

Machine General Description	Panel Size Capability	Worktables	Vac System	Spindle Type	Suggested End User Price	Qty	Suggested End User	Discount	Total Price
GSR1200 SEMI-AUTOMATIC ROUTER - 4025 SPINDLE	Panel 350x350mm, thk<3mm	Two	Top Vac	4025 spindle	\$ 59,800.00	1	\$ 59,800.00	16%	\$ 50,232.00
GSR1200 SEMI-AUTOMATIC ROUTER - 4041 SPINDLE	Panel 350x350mm, thk<8mm	Two	Top Vac	4041 Spindle	\$ 62,400.00	1	\$ 62,400.00	16%	\$ 52,416.00
GSR1200D SEMI-AUTOMATIC ROUTER - DUAL 4025 SPINDLE	Panel 350x350mm, thk<3mm. Retractable 2nd spindle	Two	Top Vac	4025 spindle (Dual)	\$ 72,800.00	1	\$ 72,800.00	16%	\$ 61,152.00
GSR1280 SEMI-AUTOMATIC ROUTER - 4025 SPINDLE	Panel 500x500mm, thk<3mm	Two	Top Vac	4025 spindle	\$ 75,920.00	1	\$ 75,920.00	16%	\$ 63,772.80
GSR1280D SEMI-AUTOMATIC ROUTER - DUAL 4025 SPINDLE	Panel 500x500mm, thk<3mm. Retractable 2nd spindle	Two	Top Vac	4025 spindle (Dual)	\$ 92,960.00	1	\$ 92,960.00	16%	\$ 78,086.40
GSR1280 SEMI-AUTOMATIC ROUTER - 4041 SPINDLE	Panel 500x500mm, thk 8mm	Two	Top Vac	4041 Spindle	\$ 79,500.00	1	\$ 79,500.00	16%	\$ 66,780.00
GSR1280E SEMI-AUTOMATIC ROUTER - 4041 SPINDLE	Panel 610x610mm, thk 8mm	One	Top Vac	4041 Spindle	\$ 78,000.00	1	\$ 78,000.00	16%	\$ 65,520.00
GSR 1290 SEMI-AUTOMATIC ROUTER - 4041 SPINDLE	Panel 910x610mm, thk 8mm	One	Top Vac	4041 Spindle	\$ 81,120.00	1	\$ 81,120.00	16%	\$ 68,140.80
GSR 2280 SEMI-AUTOMATIC ROUTER - 4041 SPINDLE [HS Z Axis]	Panel 585x550mm, thk 8mm	Two	Top Vac	4042 Spindle	\$ 85,000.00	1	\$ 85,000.00	16%	\$ 71,400.00

The GSR series of dual and large single table routers are stand alone machines specially designed to route (de-panelize) printed circuit board assemblies (PCBA) with precision and repeatability in High Volume environments. They are capable of speeds of up to 100mm/s and positioning speeds of 1000mm/s. The dual table design allows continuous operation of routing without stoppages due to panel load/unload - table one is being loaded and unloaded the second table is in an active operational mode being cut. The machines rigid design and precision axis allows the system to operate with high acceleration/deceleration, reducing cycle time while maintaining high accuracy. Using a high resolution CCD camera the GSR user-friendly Windows-based software allows the user to program the routing paths in minutes. The machine operates 2 vacuum blowers and filter tanks for exceptionally clean cutting and finished product.



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OPTIONS		Remarks	Price	Qty	Sub Total	Discount	Total
1	Fiducial Mark Vision Alignment	Standard on GSR2280	\$ 7,460	1	\$ 7,460.00	16%	\$ 6,266.40
2	Fiducial Mark Vision Alignment On Site Upgrade c/w new camera	Standard on GSR2280	\$ 7,893	1	\$ 7,893.33	16%	\$ 6,630.40
3	Air Ionizer Fan type (2 units)		\$ 1,500	1	\$ 1,500.00	16%	\$ 1,260.00
4	GSR 1200 Universal fixture and top clamp (1 Pair), excl pins and edge guides		\$ 2,133	1	\$ 2,133.33	16%	\$ 1,792.00
5	GSR 1280 Universal fixture and top clamp (1 Pair), excl pins and edge guides		\$ 2,667	1	\$ 2,666.67	16%	\$ 2,240.00
6	Vacuum Pressure Sensor		\$ 1,323	1	\$ 1,322.67	16%	\$ 1,111.04
7	Barcode Scanner (1D / 2D) + software		\$ 5,867	1	\$ 5,866.67	16%	\$ 4,928.00
8	Tool Height (Length) Check Module		\$ 5,120	1	\$ 5,120.00	16%	\$ 4,300.80
9	Ioniser air nozzle on left and right tables		\$ 1,280	1	\$ 1,280.00	16%	\$ 1,075.20
10	Top clamp vertical mechanism		\$ 2,453	1	\$ 2,453.33	16%	\$ 2,060.80
11	Automatic Top Clamps		\$ 2,133	1	\$ 2,133.33	16%	\$ 1,792.00
12	Additional vacuum tank c/w filter		\$ 907	1	\$ 906.67	16%	\$ 761.60
13	CE Certification	Standard on GSR2280	\$ 5,600	1	\$ 5,600.00	16%	\$ 4,704.00
14	Safety Light Curtain Sensor	Implemented on GSR1200 & GSR1280. Not applicable on GSR2280 & GSR1280E	\$ 5,500	1	\$ 5,500.00	16%	\$ 4,620.00
15	Auto Tool Bit Change	Implemented on GSR1280	\$ 5,500	1	\$ 5,500.00	16%	\$ 4,620.00

Standard Terms and Conditons

- 1 All Prices are quoted Ex Works Getech's Singapore Factory
- 2 All Estimates provided in relation to this project are Estimates only.
- 3 Machine performance and product suitability can only be qualified with sample materials.
- 4 Payment Terms 100% net 90 days from Shipment

201 Woodlands Ave 9, #05-50 Spectrum 2, Singapore 738955, Republic of Singapore.

Machine General Description	Panel Size Capability	Worktables	Vac System	Spindle Type	Suggested End User Price	Qty	Suggested End User	Discount	Total Price
GAR1200 - In-Line PCB Router	350mm x 310mm	Two Tables	Top	4041	\$ 119,000.00	1	\$ 119,000.00	16%	\$ 99,960.00
GAR1200K -In-Line PCB Router (Single Table)	450mm x 330mm	One Table	Top	4041	\$ 119,000.00	1	\$ 119,000.00	16%	\$ 99,960.00

The Getech GAR is a top router designed for high speed, high volume applications. The machine operates two tables in unison. When one table is in the active cutting location the second is in the Load/Unload position. With inline PCB feed and a Flat Belt offload for teh cut PCBs. Scrap materil is dumped inside and conveyed to the back of the machine. Optionally the flat belt can be replaced with a Bridge axis that ties the machine to down stream opertions.

OPTIONS					Price	Qty	Sub Total	Discount	Total
5	CE Certification			Included	\$ 5,600.00	0	\$ -	16%	\$ -
2	Vacuum Pressure Sensor				\$ 992.00	1	\$ 992.00	16%	\$ 833.28
3	GAR1200 PCBA Loading Pick and Place adjustable fixture (5 nozzles)				\$ 1,650.00	1	\$ 1,650.00	16%	\$ 1,386.00
4	GAR1200 PCBA Unloading Pick and Place adjustable fixture (5 nozzles)				\$ 1,650.00	1	\$ 1,650.00	16%	\$ 1,386.00
5	Outgoing flat belt conveyor (adjustable speed) and sensors. Protrusion from machine right - Select 0.8m, 1.1m, 1.6m				\$ 2,500.00	1	\$ 2,500.00	16%	\$ 2,100.00
6	Fiducial Mark Vision Alignment				\$ 7,460.00	1	\$ 7,460.00	16%	\$ 6,266.40
7	Air Ionizer Fan type (2 units)				\$ 1,500.00	1	\$ 1,500.00	16%	\$ 1,260.00
8	Vacuum Pressure Sensor				\$ 1,322.67	1	\$ 1,322.67	16%	\$ 1,111.04
9	Barcode Scanner (1D / 2D) + software				\$ 5,866.67	1	\$ 5,866.67	16%	\$ 4,928.00
10	Tool Height (Length) Check Module				\$ 5,120.00	1	\$ 5,120.00	16%	\$ 4,300.80

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Machine Type (Optional CE Certificaton)		Panel Size	Worktables	Vac System	Cutting System [10W Standard, 30W Optional]	Suggested End User Price	Qty	Suggested End User	Distributor Discount	Total Price
CE Optional	GLRS1200 standalone laser singulation system c/w 1. Integrated carbon filtration system 2. Integrated Laser [Green 532 nm] 3. Manual Doors	Panel 350 x 300	Two	Top Vac	Green Laser Source 532 nm [10W Power]	\$ 150,000.00	1	\$ 150,000.00	12%	\$ 132,000.00
CE Optional	LIRM - IL Inline laser singulation system c/w 1. Integrated carbon filtration system 2. Integrated Laser [Green 532 nm] 3. Manual Doors	Panel 350 x 300	Two	Top Vac	Green Laser Source 532 nm [10W Power]	\$ 195,000.00	1	\$ 195,000.00	12%	\$ 171,600.00


The GLSS is either a standalone or inline Laser singulation machine specially designed to handle ultra-sensitive FR4 and and flexible printed circuit board assemblies. In the standalone application typical PCB thickness at the cut line is less than 0.6 mm. With the higher power inline system PCB thickness can be upto 1.6mm subject to testing. The GLSS operates two tables for simultaneous cutting and load/unload operations for maximum production effectiveness and flexibility. The GLSS employs a 10W or 30W green laser source with wavelength at 532 nm. The Laser is a pulsed system with energy durations that allow the cutting of difficult materials without the charring affects associated with CO₂ cutting systems while maintaining a very low HAZ at the cut line.



OPTIONS										
1	Fiducial Mark Vision Alignment					\$ 7,460.00	1	\$ 7,460.00	16%	\$ 6,266.40
2	Fume Extractor					\$ 2,800.00	1	\$ 2,800.00	16%	\$ 2,352.00
3	Barcode Scanner (1D / 2D) + software					\$ 5,866.67	1	\$ 5,866.67	16%	\$ 4,928.00
4	30W Laser Upgrade for high Power applications					\$ 45,000.00	1	\$ 45,000.00	5%	\$ 42,750.00
5	CE Certification					\$ 5,600.00	1	\$ 5,600.00	16%	\$ 4,704.00

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Machine General Description	Panel Size Capability	Worktables	Vac System	Spindle Type	Suggested End User Price	Qty	Suggested End User	Discount	Total Price
GBR - Fixtureless PCB Router	500mm x 400mm	One Station	Bottom	4041	\$ 175,000.00	1	\$ 175,000.00	16%	\$ 147,000.00


<p>The Getech GBR Bottom Router is a Fixtureless PCBA Depanelling machine. With an X,Y and Z axis below the PCB with a mounted cutting spindle and a second full X,Y,Z and theat axis robot above the PCB. The top ROBOT grips each PCB being cut to stablize it and once seperated to move it to the offload station. The GBR is designed to be an integral part of a larger automated solution including Test and Offload minimizing operator handling of the PCBs. To this extent the machine can be configured with a simple flat belt offload conveyor or a tray handler/stacker.</p>	
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OPTIONS					Price	Qty	Sub Total	Discount	Total
1	Fiducial Mark Vision Alignment				\$ 7,460	1	\$ 7,460.00	16%	\$ 6,266.40
2	Vacuum Pressure Sensor				\$ 1,323	1	\$ 1,322.67	16%	\$ 1,111.04
3	Barcode Scanner (1D / 2D) + software				\$ 5,867	1	\$ 5,866.67	16%	\$ 4,928.00
4	Post Routung PCB dust cleaning module				\$ 4,500	1	\$ 4,500.00	16%	\$ 3,780.00
5	Tray Handler In/Out same side for Parts Tote Trays [Replaces Flat Belt Off load]				\$ 48,500.00	1	\$ 48,500.00	16%	\$ 40,740.00
6	Flat belt out-going conveyor (W=395mm, External length = 640mm)				Inc				
7	Gripper jaws (Fingers & adapter)				Inc				

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Machine General Description	Panel Size Capability	Worktables	Vac System	Laser Source	Suggested End User Price	Qty	Suggested End User	Discount	Total Price
GLMS - Inline Laser Marking Machine	450mm x 400mm w Flip	One Position	Top	30W CO2	\$ 83,500.00	1	\$ 83,500.00	16%	\$ 70,140.00

<p>The GLMS is a High Speed, High Power Laser marking system. The high power reduces the period of time each mark takes to create increasing the mark resolution - a key to readability. The machine has integrated internally a Flip station allowing both sides of the PCB to be marked in a single operation.</p> <ul style="list-style-type: none"> • Large Panel Size 450mm x 400mm (18 x 16 inches) • Powerful X Y Servo Motor Power Axis • 30W CO2 Laser for high resolution marks • Z axis adjustability with Laser • Internal Flip Station • Double Side Marking • Class 1 Laser • Class 4 Enclosure • Auto Conveyor Width Adjust <ul style="list-style-type: none"> • ESD Edge Belts • Visual Move Teach and Programming System • Verification of 1D and 2D marks in real time. • Fume Extraction w Carbon filtration • MES Integrtrion • SMEMA • CE Certification • USP to insure last PCB marking is completed • 1D, 2D, Alpha Numerics, QR Codes and Graphics 	
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OPTIONS		Price	Qty	Sub Total	Discount	\$
1	Internal Flip Station for double sided operations (Default)	\$ 8,900.00	1	\$ 8,900.00	16%	\$ 7,476.00
2	MES Integration	Quoted				
3	Scanner 1D/2D decode	\$ 5,867.00	1	\$ 5,867.00	16%	\$ 4,928.28
4	Fume Extract	\$ 2,800.00	1	\$ 2,800.00	16%	\$ 2,352.00
5	UPS	\$ 2,000.00	1	\$ 2,000.00	16%	\$ 1,680.00

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Options	\$ 14,756.28
Machine	\$ 70,140.00
Total	\$ 84,896.28

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Machine General Description	Panel Size Capability	Worktables	Vac System	Spindle	Suggested End User Price	Qty	Suggested End User	Discount	Total Price
ESR 1000	Panel 500x420mm, thk<3mm	One Table	Top	4025	\$ 39,000.00	1	\$ 39,000.00	16%	\$ 32,760.00

The ESR is a stand alone router, specially designed as a low cost solution for stress free depaneling of printed circuit boards. The ESR1000 can accommodate larger PCBs on its single or dual table configuration with maximum panel size of 500mm x 450mm (19.5" x 17.5"). The ESR is designed to provide a user friendly machine with ease of use and maintenance as a central design constraint. The welded structure is exceptionally Stiff ensuring cutting accuracy and long machine life. The Machine is fitted with ESD safe Perspex windows, the sliding doors provide a fully enclosed safe and quiet machine. The efficient, repeatable depaneling of PCBs insures finished goods against costly stress failures and costly scrap. The ESR is an ideal machine for medium volume



OPTIONS		Price	Qty	Sub Total	Discount	Total
1	Fiducial Mark Vision Alignment 1000 Only	\$ 7,460	1	\$ 7,460.00	16%	\$ 6,266.40
2	Air Ionizer Fan type (1 unit)	\$ 900	1	\$ 900.00	16%	\$ 756.00
3	ESR Universal fixture and top clamp (1 Pair), excl pins and edge guides	\$ 2,133	1	\$ 2,133.33	16%	\$ 1,792.00
4	Vacuum Pressure Sensor	\$ 1,323	1	\$ 1,322.67	16%	\$ 1,111.04
5	CE Certification	\$ 5,600	1	\$ 5,600.00	16%	\$ 4,704.00
6	Barcode Scanner (1D / 2D) + software	\$ 5,867	1	\$ 5,866.67	16%	\$ 4,928.00

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