JUKI
smart.fast.modular.

PLACEMENT *SOLUTION*

RS-1R
Fast Smart Modular Mounter
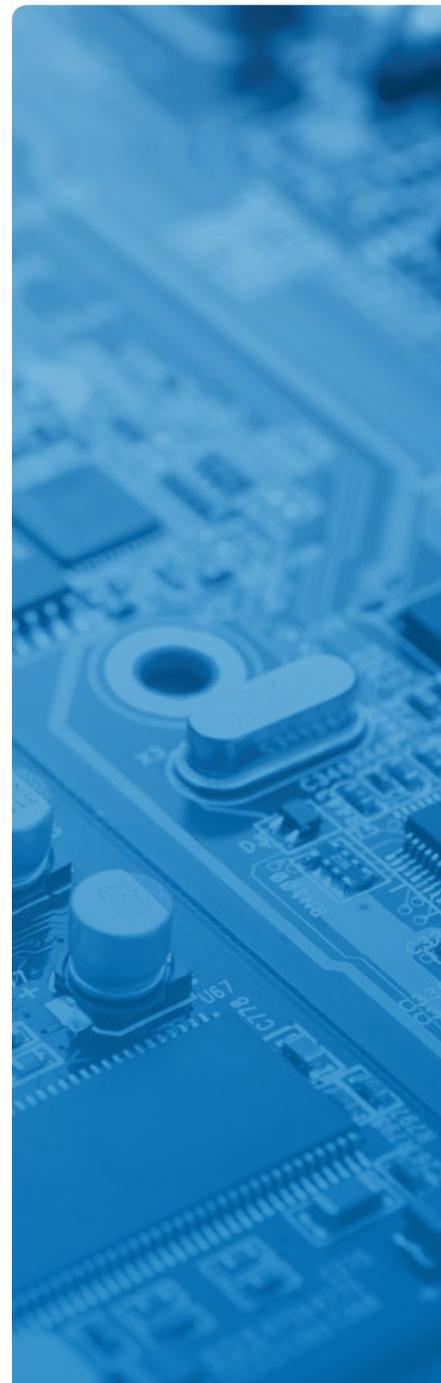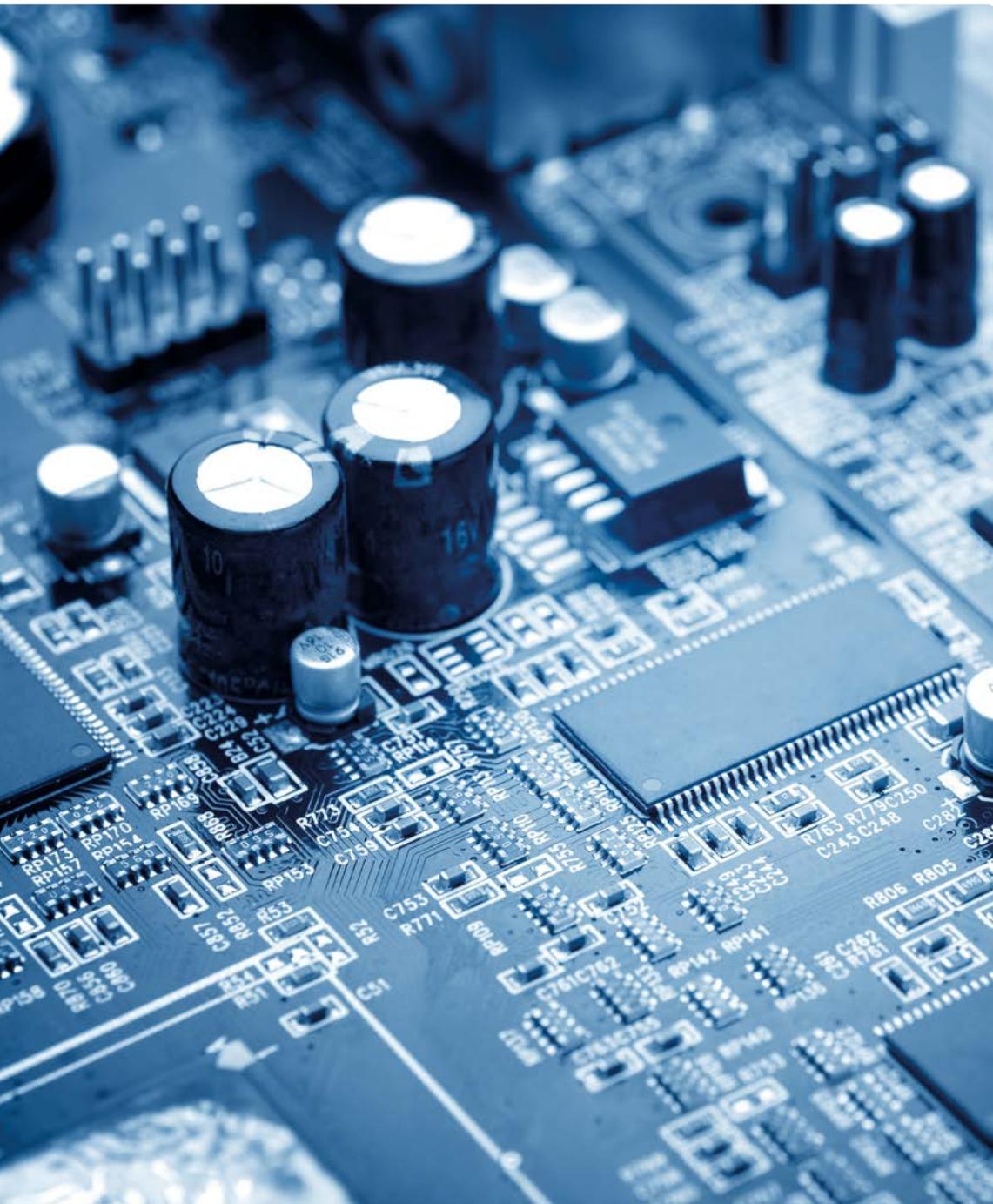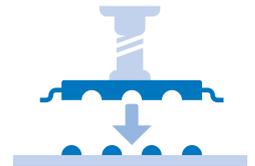
HARDWARE OPTIONS FOR RS-1R

RS-1R PLACEMENT
Fast Smart Modular Mounter

Placement speed:	47,000 CPH (optimum)
Board size:	650 × 370 mm (standard configuration)
Component size:	0201* (metric) ~ 74 mm / 50 × 150 mm

*Please contact us for availability.

NOZZLE TRACEABILITY FUNCTION

`Option`

RFID tags are mounted on each nozzle to improve control and traceability.
Nozzle maintenance can be monitored and traceability of performance is maintained.

LARGE NOZZLE ATC

`Option`

Changeable ATC plate supports nozzles up to 7 × 28 mm. Large nozzles for large or heavy components are available.

SMART MACHINE 2
For High Flexibility

Wide component range
RS-1R supports components from 0201* (metric) up to 74 mm square or 50 × 150 mm rectangular parts. The RS-1R component height goes up to 25 mm.

0201* (metric)
~ 74 mm or
50 × 150 mm
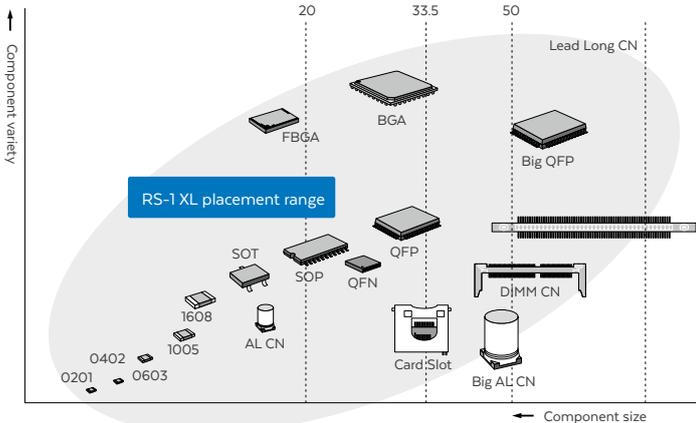
*Please contact us for availability.

SMART MACHINE 3
Line Balancer

Optimum line balance and highest throughput on any product
Changing the RS-1R functionality does not require a head replacement. The revolutionary head design adjusts automatically to the production requirements. It can be used in-line with high speed chip placement machines to improve overall line productivity or to make the line more flexible for complex PCBs with a high number of large components.

Case Study 1	Without RS-1R		With RS-1R

Example PWB with 1,000 chips, 50 large components.

chip mounter → chip mounter → flexible mounter →
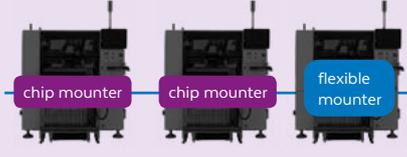
Products with a high percentage of small chips results in poor utilization of flexible machines.

chip mounter → chip mounter →
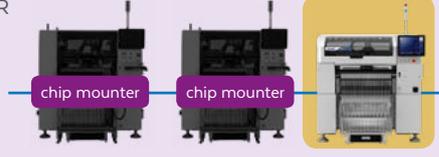
The flexible design of the RS-1R means it can adjust for smaller components and maintain high speed placement capability.

Case Study 2	Without RS-1R		With RS-1R
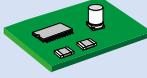
Example PWB with 300 chips, 100 large components.

chip mounter → chip mounter → flexible mounter →
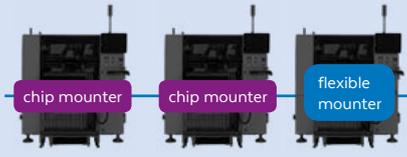
Products with a high number of large components increase the load on the flexible machine, making it a bottleneck.

chip mounter → → flexible mounter →

The RS-1R automatically adjusts its components capability making it possible to balance the load across several machines and reducing bottlenecks.

Case Study 3
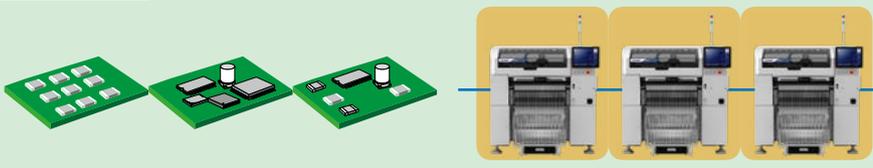
The RS-1R can change its function dynamically from high speed chip placement to flexible placement of large components. This improves optimization and line balancing for various products.

SELF-OPTIMIZING SMART HEAD

"Takumi head" that automatically optimizes its height between 6 different positions based on component height. Tact time is optimized by keeping the head as close to the PCB as possible for the components placed.

T HEAD
TAKUMI

New Dynamic Height 8 nozzle placement head automatically adjusts height to optimize placement speed.
This head adjusts automatically based on the components to be placed from 1 mm to 25 mm in 6 different positions (1 · 3 · 6 · 12 · 20 · 25 mm).

(Variable height of the laser sensor in accordance with the component height)

ex: component height 20 mm — component height
ex: component height 6 mm

- 25 mm
- 20 mm
- 12 mm
- 6 mm
- 3 mm NEW
- 1 mm

PWB
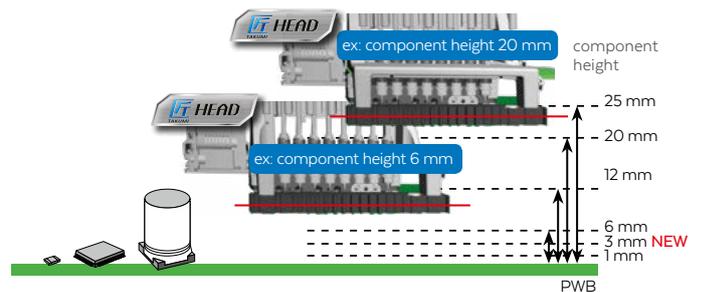
SMART TECHNOLOGY 2
JUKI Technology

JUKI's On-The-Fly centering technology is fast, accurate and reliable for a wide range of components.
Wide range of supported components including PLCC, SOP, QFP, BGA and many more. Size from 0201* (metric) to 50 mm square.

Please contact us for availability.

Recognition algorithm

Laser calculates the following data for each component on-the-fly: component shape component center, angle and component width

bottom recognition | side recognition | back light recognition
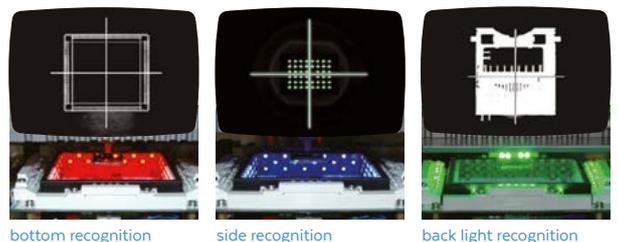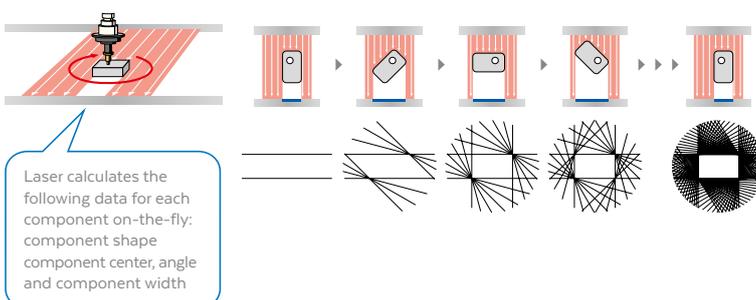
SPECIFICATIONS

	Technical Data RS-1R	
Board Size		max. 650 × 370 mm (single clamping)
		max. 950 × 370 mm (double clamping)*¹
		max. 1,200 × 370 mm (double clamping)*²
Component height		25 mm
Component size		0201*³ (metric) ~ 74 mm / 50 × 150 mm
Placement Speed	Optimum	47,000 CPH
	IPC9850	31,000 CPH
Placement accuracy		± 0.035 mm (Cpk ≥ 1)
Feeder inputs		max. 112*⁴
Power supply		200 ~ 415 VAC, 3-phase
Apparent power		2.2 kVA
Operating air pressure		0.5 ± 0.05 MPa
Air consumption		max. 50L / min
Machine dimensions (W × D × H)		1,500 × 1,810 × 1,440 mm
Mass (approximately)		1,700 kg

*¹ Software-Option required.
*² 250 mm conveyer extension required.
*³ Please contact us for availability.
*⁴ When using RF Feeder Series on front and rear.
Please refer to product specifications for details.

Specifications and design subject to change without notice.

05/2019_Rev02