

Fast Smart Modular Mounter

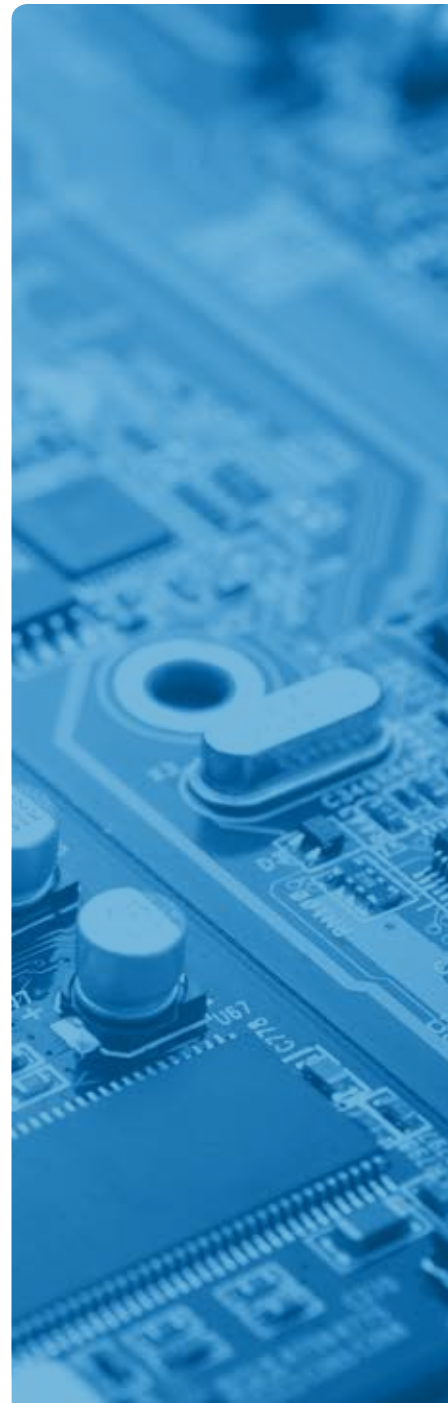
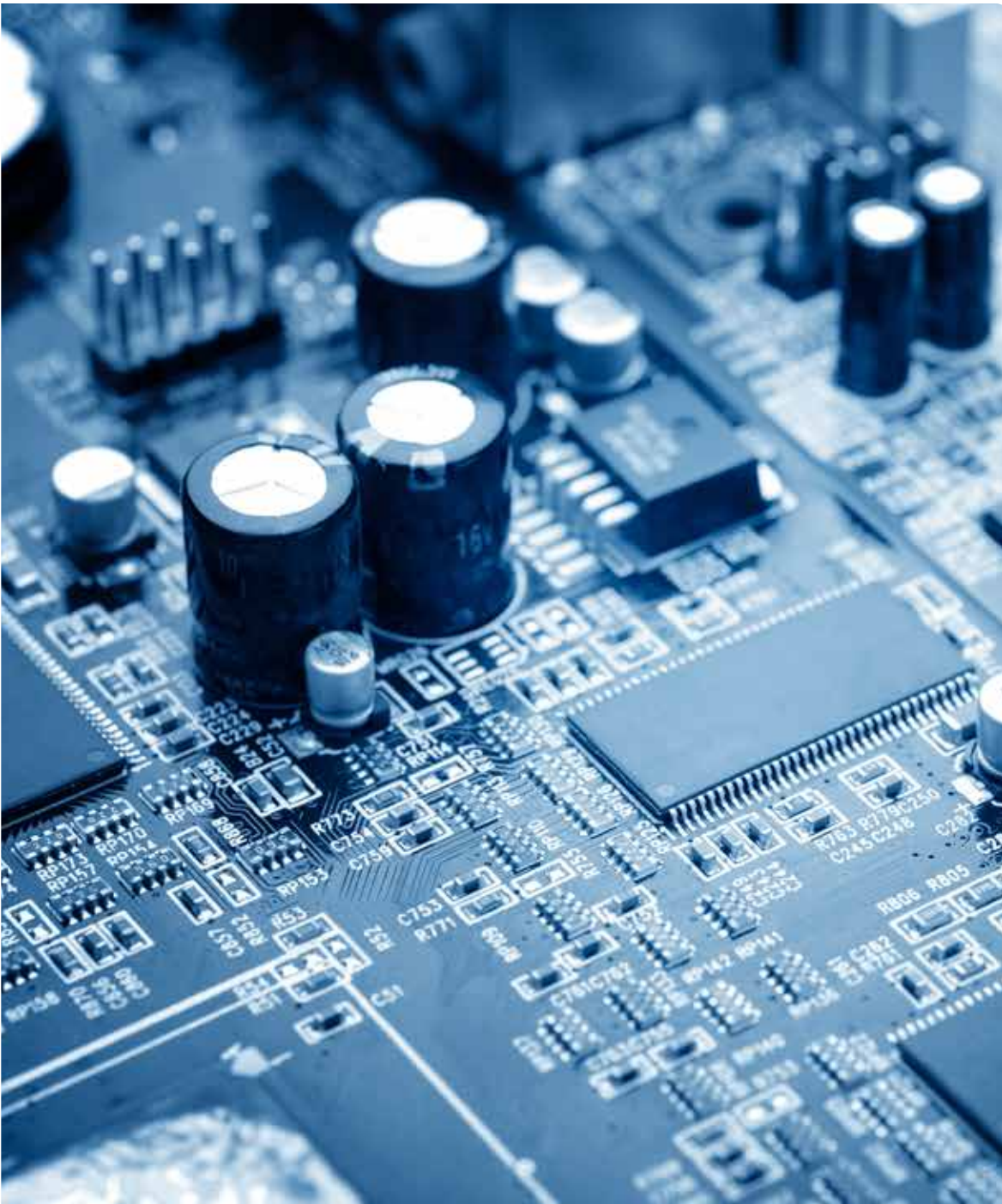
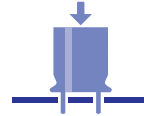
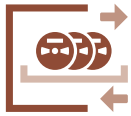
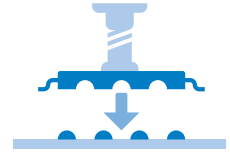
RS-1R

JUKI

JUKI Smart Solutions

Fast Smart Modular Mounter

Superior Productivity With the best throughput in an advanced, all-in-one



BASIC FEATURES

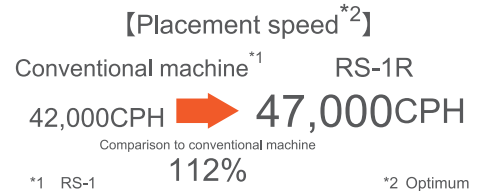


- Class leading speed, up to 47,000 cph
- Newly developed "Takumi Head" with changing recognition sensor height
- Optimum line balance and highest throughput
- Wide component range from 0201 (metric) to large connectors and ICs
- Optimal for LED placement

RS-1R High-Speed Smart Modular Mouter

Feature 1 Class leading speed, up to 47,000 cph

●Class leading speed, up to 47,000 cph
 Maximum speed of up to 47,000 cph*. This is made possible by a revolutionary head design that reduces the travel time and distance for every placement. *Optimum



●New RF feeders are smaller, thinner, and lighter
 The new RF feeders are smaller and lighter, but still maintain the same high degree of positional accuracy. The thinner width allows up to 112 feeder inputs.*

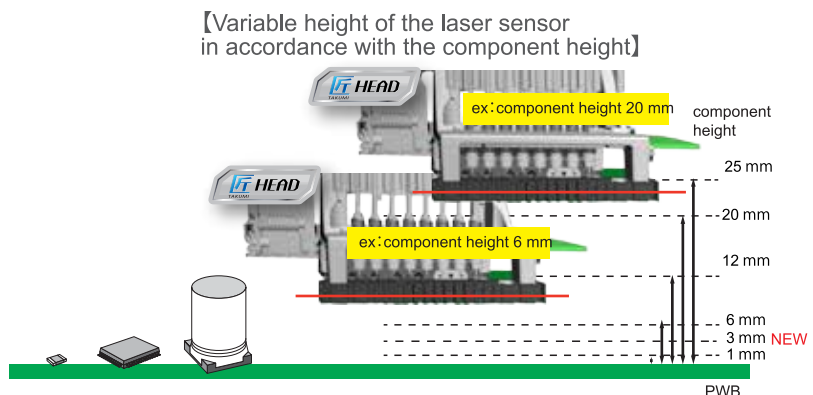


Feature 2 Self-Optimizing Smart Head

"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.

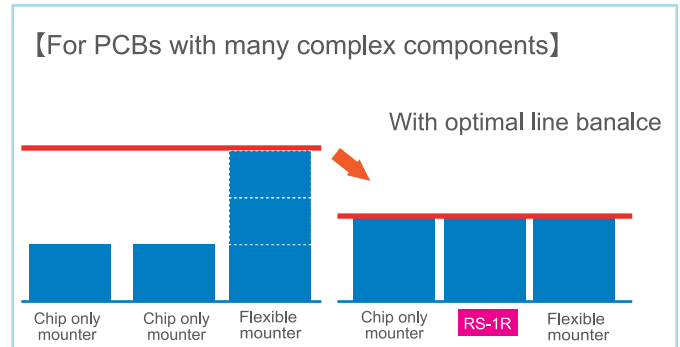
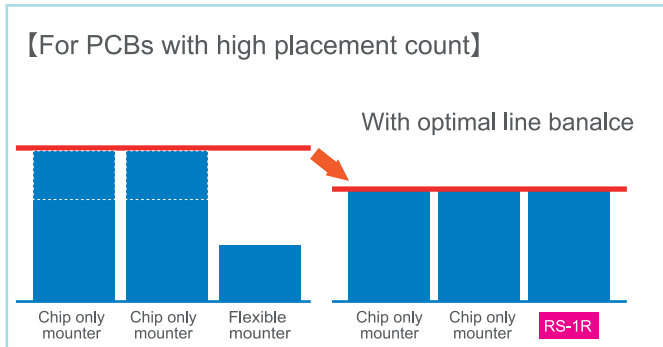


New Dynamic Height 8 nozzle placement head automatically adjusts height to optimize placement speed. This head adjusts automatically based on the components to be placed from 1 mm to 25 mm in 6 different positions (1 • 3 • 6 • 12 • 20 • 25 mm).



Feature 3 Optimum line balance and highest throughput

Changing the RS-1 functionality does not require head replacement. The revolutionary design self-optimizes based on the production requirements. The RS-1R can reduce the workload on high speed. A line with two or more RS-1Rs can adjust to a wide variety of production requirements from high speed to high flexibility.



Feature 4 Nozzle traceability function OP

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



Feature 5 Large Nozzle ATC OP

Changeable ATC plate supports nozzles up to 7x28 mm. Large nozzles for large or heavy components are available.



Feature 6 Wide component range from 0201 (metric) to large connectors and ICs

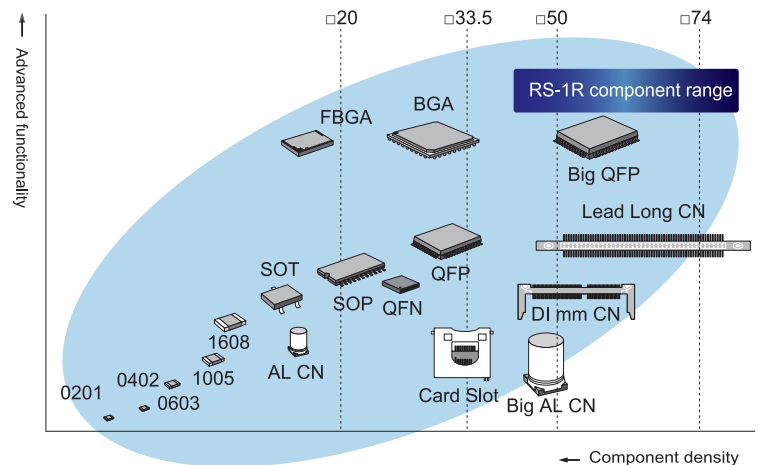
RS-1R supports components from 0201*1(metric) up to 74 mm square or 50x150 rectangular parts. Component height up to 25 mm.

*1 With 10 mm view camera
Please contact in detail.

【Part correspondence power】

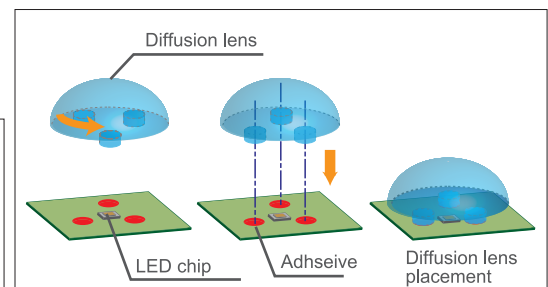
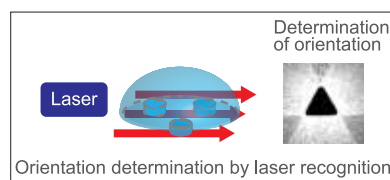
0201*2 ~ □74 mm
50×150 mm

*2 Please contact for details.



Feature 7 Optimal for LED placement

●High-precision placement of diffusion lenses.
RS-1R can use either vision or laser centering for diffusing lenses, depending on the component requirements. A wide range of lens styles can be placed.



●Long PCB Support

Up to 650 x 370 mm with single clamping.
Up to 950 x 370 mm with dual clamping, or up to 1200 x 370 mm with optional conveyor extensions.



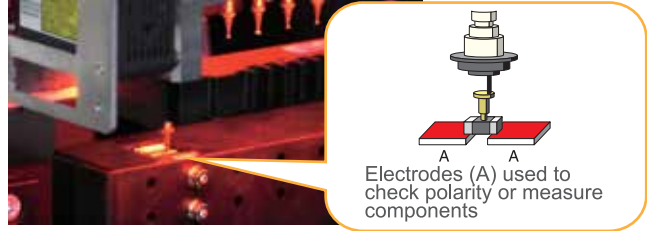
Quality

Incorrect component prevention component verification system (cvs)

OP

By measuring the resistance, capacitance, or polarity before production starts, the machine can prevent incorrect components from being placed. The new CVS unit can check six components simultaneously, reducing the check and changeover times.

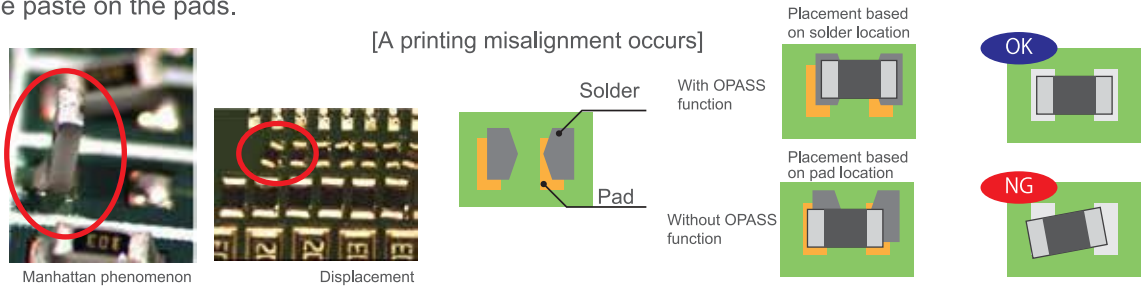
- Check the Resistance, Capacitance and Polarity before production starts.
- Prevents incorrect component/reel from being used
- Prevents incorrect component placement



Reduce errors due to solder paste alignment offset placement after solder screen printing

OP

The OPASS function uses the machine's downward looking camera to check the location of solder paste vs. the pads and corrects the placement accordingly. This function reduces defects caused by misalignment of the paste on the pads.



▶ Reduction in the percentage defective

Solder paste for fiducials
Solder printed pads can be used in place of fiducials for circuit boards that do not have fiducials. This is especially helpful on long PCBs that require double clamping and do not have a fiducial in the appropriate area.

Coplanarity sensor - checks balls and leads

OP

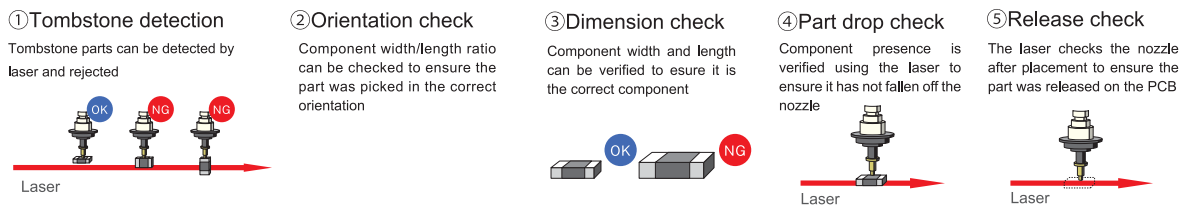
Prevents placement of defective component by checking lead float of lead component and nick of ball component. High accurate and high speed coplanarity check will improve the products' reliability.



Improved quality using component checking

Laser

Component presence is monitored from pick to placement, reducing defects.



Other Options

Tray component supply

OP

Several options are available to present components in trays.
The compact width of the TR8 means there is still room for up to 20 8 mm feeders on the same bank. A single tray holder and dual tray server are also available.
The rear operation unit makes production more efficient by reducing the time the operator has to move around the line.



Matrix tray holder



Dual tray server



TR8

Stick feeder

OP

Single lane stick feeders install and remove as fast as tape feeders. Belt drive provides smooth, vibration free operation. LED indicates the feeder status.

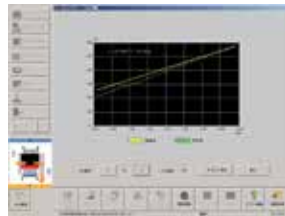


Electric stick feeder

Load cell

OP

Load cell measures the placement force precisely for each nozzle. The risk of damaging fragile components is reduced during both pick and placement. The load can be set individually for each part number.



Data check on the monitor screen

Feeder Setup Stand

OP

The feeder setup fixture is used to load reels offline quickly and easily. It is safer and easier to use than laying feeders on a table.



Mountable also on the rear side (front is standard)

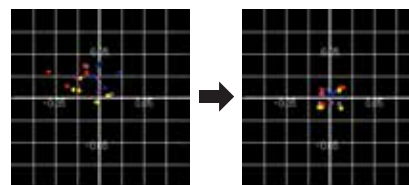


Feeder Setup Fixture for RF feeder

FCS (Flex Calibration System)

OP

JUKI's highly regarded easy maintenance just got even easier! The optional FCS calibration jig is a simple to use system to re-calibrate placement accuracy. The machine automatically picks and places jig components, then measures the error and adjusts all necessary calibrations. (optional)



FCS image

Non-stop operation

OP

Non-stop operation allows the operator to replace feeders while the machine continues to run at full speed.

The IC collection belt

OP

The IC collection belt provides a safe method to handle rejected parts while also protecting them from further damage. Belt pitch can be set for different size parts.



The IC collection belt

Specification

Item		Model	Fast Smart Modular Mounter RS-1R		
Conveyor specification		Standard	150 mm conveyor extensions, upstream and downstream	250 mm conveyor extensions, upstream and downstream	
Board size	minimum		50×50 mm		
	maximum	1 buffer	650×370 mm(single clamping)		
		3 buffers	950×370 mm(double clamping)	1,100×370 mm(double clamping)	1,200×370 mm(double clamping)
		360×370 mm	500×370 mm	600×370 mm	
Component height			25 mm		
Component size			0201*1 ~ □74 mm/150×50 mm		
Placement speed	Optimum		47,000CPH		
	IPC9850		31,000CPH		
Placement accuracy			±35μm (Cpk≥1)		
Feeder inputs			max.112*2		
Power supply			AC200 ~ 415V*3 3-phases		
Apparent power			2.2kVA		
Operating air pressure			0.5±0.05MPa		
Air consumption			200L/min for internal vacuum generator, 50 l/min with optional vacuum pump		
Machine dimensions (W×D×H)*4		1,500×1,810×1,440 mm	1,800×1,810×1,440 mm	2,000×1,810×1,440 mm	
Mass(approximately)			1,700kg		

*1 For metric 0201 compliance please contact us.

*2 Using RF(RF08AS) feeders

*3 A transformer unit (option) is necessary except AC 200 V.

*4 D dimension does not include the front operation monitor. H dimension does not include signal tower.

Option



Fast Smart Modular Mounter RS-1R	
Recognitions system	10 / 27 / 54 mm view camera
Operations system	Rear-side operation unit / keyboard (front only)
Inspection function	Coplanarity sensor / Component Verification System(CVS)*5
Conveyor	Conveyor extension *6 / support pin / support sponge
Electrical protection	CE compatible specification / Ground-fault interrupter
Force Control	Force control unit / Force control nozzle
Software*5	JaNets / IFS-NX / Flexline CAD
Component handling and feeders	Feeder Trolley RF feeder only / RF-EF dual servo *7) / Electric tape feeder (RF/EF*7) / EF feeder adapter*7) / Electric stick feeder*7(Type-N/Type-W) / Matrix tray server TR8SR, TR5SNX, TR5DNX / Matrix tray changer TR6SNV, TR6DNV / Dual tray server TR1RB / Nonstop operation function / Tray Holder / IC collection belt / Tape reel mounting base(for RF / for EF) / Splicing jig / Electric Trolley Power Station PW02*8
Others	RS-1R · RS-1 nozzles(with or without RFID tags) / Splicing tape / Big foot / Offset placement after solder screen-printing Solder lighting / Mini-signal light / non-stop operation / FCS calibration jig / large ATC / vacuum pump

*5 Please contact for details.

*6 One side conveyor extension is also possible.

*7 When EF feeders adapt the an attachment of EF feeder, the EF feeder can use on RF/EF feeder trolley and fixed bank (rear side). Please inquire details.

*8 Separate connection cables for each model are required.

 JUKI ECO PRODUCTS	<p>The RS-1R is an eco-friendly product which complies with JUKI ECO PRODUCTS standards for protecting the environment.</p> <p>•The machine complies with the "JUKI Group Green Procurement Guidelines" on the use of hazardous substances, which is stricter than other restrictions, such as those of the RoHS Directive.</p> <p>*The RoHS Directive is an EU Directive limiting the use of 6 hazardous substances(lead, hexavalent chromium, mercury, cadmium,PbS and PBOE) in electrical and electronic equipment. The JUKI Green Procurement Guideline is the voluntarily established criteria to eliminate not only the aforementioned six substances, but also other ones which also adversely affect the environment.</p>
 JUKI ECO PRODUCTS	<p>For details of JUKI ECO PRODUCTS, refer to: https://www.juki.co.jp/eco_e/index.html</p>



JUKI CORPORATION HEAD OFFICE
 The activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines, household sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

*Please refer to the product specifications for details.

■JUKI Specifications and appearance may be changed without notice.

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