Specifications — i-PULSE series S10

Board size	(with buffer unused)	Min. L50 x W30 mm to Max. L1,330 x W510 mm (Standard L955)
	(with input or output buffer used)	Min. L50 x W30 mm to Max. L420 x W510 mm
	(with input and output buffers used)	Min. L50 x W30 mm to Max. L330 x W510 mm
Board thickness		0.4 – 4.8 mm
Board flow direction		Left to right (Std)
Board transfer speed		Max. 900 mm/sec
Placement speed (12 heads + 2 theta) Opt. Cond.		0.08 sec/CHIP (45,000CPH)
Placement accuracy A (μ+3σ)		CHIP +/- 0.040 mm
Placement accuracy B (μ+3σ)		IC +/- 0.025 mm
Placement angle		+/-180 degrees
Z axis control / Theta axis control		AC servo motor
Component height		Max. 30 mm *1 (Pre-placed components: max. 25 mm)
Applicable components		0201 (mm) – 120 x 90 mm, BGA, CSP, connector, etc. (Standard 01005 -)
Component package		8 - 56 mm tape (F1/F2 Feeders), 8 - 88 mm tape (F3 Electric Feeders), stick, tray
Drawback check		Vacuum check and vision check
Screen language		English, Chinese, Korean, Japanese
Board positioning		Board grip unit, front reference, auto conveyor width adjustment
Component types		Max. 90 types (8 mm tape), 45 lanes x 2
Transfer height		900 +/- 20 mm
Machine dimensions, weight		L1250 x D1750 x H1420 mm, Approx. 1,150 kg

Specifications — i-PULSE series S20

Board size	(with buffer unused)	Min. L50 x W30 mm to Max. L1,830 x W510 mm (Standard L1,455)
	(with input and output buffers used)	L50 x W30 mm to Max. L540 x W510 mm
Board thickness		0.4 – 4.8 mm
Board flow direction		Left to right (Std)
Board transfer speed		Max. 900 mm/sec
Placement speed (12 heads + 2 theta) Opt. Cond.		0.08 sec/CHIP (45,000 CPH)
Placement accuracy A (μ+3σ)		CHIP +/- 0.040 mm
Placement accuracy B (μ+3σ)		IC +/- 0.025 mm
Placement angle		+/-180 degrees
Z axis control / Theta axis control		AC servo motor
Component height		Max. 30 mm *1 (Pre-placed components: max. 25 mm)
Applicable components		0201 (mm) – 120 x 90 mm, BGA, CSP, connector, etc. (Standard 01005 -)
Component package		8 - 56 mm tape (F1/F2 Feeders), 8 - 88 mm tape (F3 Electric Feeders), stick, tray
Drawback check		Vacuum check and vision check
Screen language		English, Chinese, Korean, Japanese
Board positioning		Board grip unit, front reference, auto conveyor width adjustment
Component types		Max 180 types (8 mm tape), 45 lanes x 4
Transfer height		900 +/- 20 mm
Machine dimensions, weight		L1750 x D1750 x H1420 mm, Approx. 1450 kg

*1 : Board thickness + Component height = Max 30mm

Some specifications and parts of the external appearance are subject to change without notice.

*Under optimum conditions **Under standard conditions as defined by Yamaha Motor

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YAMAHA
TRUSTED TECHNOLOGY

i-PULSE series S10/S20

3D Hybrid Modular Mounter

S10 spec

- Max. board size: 1,330 x 510 mm (option)
- Applicable components: 0201 to 120 x 90 mm (option)
- Feeder capacity: 90 lanes (8 mm tape conversion)
- Machine width: 1,250 mm

S20 spec

- Max. board size: 1,830 x 510 mm (option)
- Applicable components: 0201 to 120 x 90 mm (option)
- Feeder capacity: 180 lanes (8 mm tape conversion)
- Machine width: 1,750 mm

Production Revolution

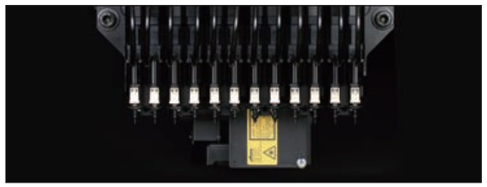
Ultimate flexibility

Color fiducial camera

A newly developed color camera and illumination system ensure robust dispense dot verification.

New head unit for higher speed placement

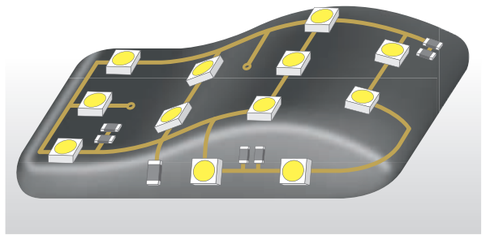
Our 12-axis 2-theta head has been redesigned for high speed placement but was built to accommodate large component placement as well. The new design also makes the 12 axis head extremely effective at high speed LED placement.



▲ 12-axis 2-theta head unit

Enhancement to 3D MID

The S10 and S20 offer dispense and placement capabilities on standard PCB applications but will also offer optional functionality for irregular PCB's such as: concave/convexed, tilted and curved surfaces. To ensure the S Series will be ready for 3D MID (Molded Interconnect Devices) production, the machines have preconfigured XY structures that will allow for upgrades to build 3D MID applications for automotive, medical and telecommunications requirements of the future.

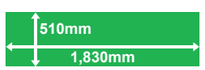


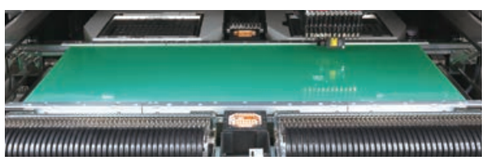
Max. feeder capacity 180 lanes

The S20 can accommodate max. 180 feeders (45 lanes x 4 positions, 8 mm tape conversion). The S10 can accommodate max. 90 feeders (45 lanes x 2 slots, 8 mm tape conversion).

Large board handling capability

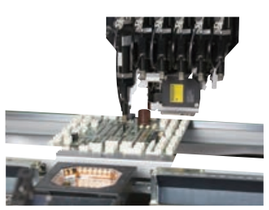
Maximum 1,240 × 510 mm board can be handled (S20) without multi-staging the PCB for placement. Optional Max. 1,830 x 510 mm board (S20) is available.





Wide range component handling capability

01005 to max. 120 x 90 mm components can be handled by a single standard camera. 0201 (mm) ultra-tiny chip handling capability is also available as option. Max. component height is 30 mm (component height + board thickness), the largest in its class on the market.



YAMAHA
i-PULSE series S10/S20
3D Hybrid Modular Mounter

CFB/CTF full compatibility

The Feeder Bank Changer CFB-36, CFB-36E and newly developed CFB-45E as well as the Changeable Tray Feeder CTF-36C can be used on either the S10 and S20 with full backwards compatibility to the M10 and M20. Additionally CFB and CTF for the M10 and M20 are compatible with the new S10 and S20.

Auto-Nozzle-Changer Station

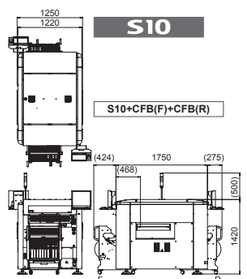
ANC station can accommodate max. 24 nozzles. Another ANC station that can accommodate max. 40 nozzles is also available as option.

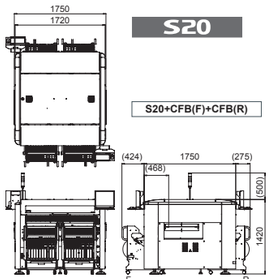
* Fitted to S20 on the above pictures.

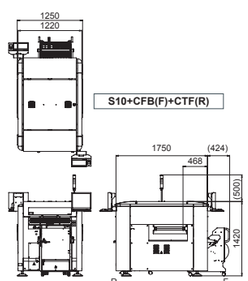
Options

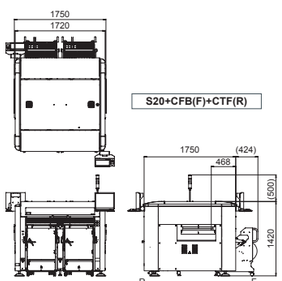
- 0201 mm chip handling capability
- Dispensed dot check function
- 3D-MID
- Rear fixed multi-scan camera
- F3 / F1 / F2 Rear 36-lane fixed feeder bank
- F3 45-lane fixed feeder bank
- Rear side switches
- Rear side operation system
- UPS4
- Conveyor extension, entrance/exit
- Component setup verifier
- Feeder relocatability
- Waste tape box
- Internal lighting
- Lead coplanarity sensor
- Safety cover, front/rear
- Clamp unit for CFB/CTF
- CFB-36E / CFB-45E F3 Electric Feeder Bank Changer
- CFB-36 F1/F2 Feeder Bank Changer
- CTF-36C Cassette type Changeable Tray Feeder
- FTF-36C Cassette type Fixed Tray Feeder
- RTS-1 Removable Tray Station
- Parts feeders
- Offline software
- iQvision

External dimensions (mm)









*Configurations on pictures may be different from standard ones.
*Specification and appearance are subject to change without prior notice.(July 2016) 010108E1607A43C