High-Speed Modular Mounter

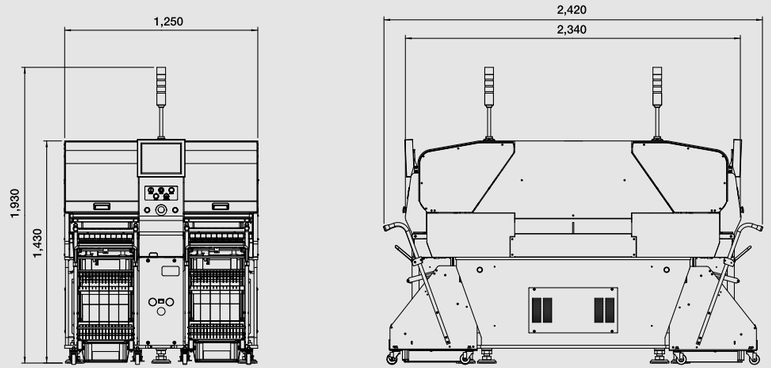
EXCEN PRO

Specifications

EXCEN PRO					
Head			High-Speed Head	Multi Function Head	High Precision Head
Number of Spindles			16 Spindles x 4 Gantry	8 Spindles x 4 Gantry	2 Spindles x 4 Gantry
Placement Speed			120,000 CPH(Optimum)	76,000 CPH(Optimum)	20,000 CPH(Optimum)
Placement Accuracy			±35μm@Cpk1.0(0402)	±50μm@Cpk1.0(0402)	±30μm@Cpk1.0(QFP)
Component Range			0402(01005 inch) ~ □ 8mm(H3mm)	0402(01005 inch) ~ □ 32mm(Max. H8mm)	0603(0201 inch) ~ □ 54mm(Max. H28mm)
Board Dimension(mm)	Dual Lane	Minimum	50(L) x 50(W)		
		Maximum	330(L) x 310(W)		
	PCB Thickness		0.3 ~ 4.0		
Feeder Capacity(8mm)			120ea(Docking Cart)		
Utility	Power		AC 200/220/380/400/420/480V(50/60Hz, 3Phase) Max. 5.5 kVA		
	Air Consumption		0.5 ~ 0.7MPa(5~7kgf/cm²) 100Nℓ/min		
Mass			Approx. 2,350kg		
External Dimension(mm)			1,248(L) x 2,420(D) x 1,447(H)		

Dimension

Unit : mm



SAMSUNG

SAMSUNG TECHWIN

MMS Division SMT Overseas Business Dept.

Main Office

Samsungtechwin R&D Center, 701, Sampyeong-dong, Bundang-gu, Sungnam-Si, Gyeonggi-Do, 463-400, Korea

• Tel : +82-70-7147-5459, 6309 Fax : +82-31-8018-3723

• http : // www.samsung-smt.com

July. 2013

SAMSUNG

Fresh Energy in Your Business

High Speed Modular Mounter

EXCEN PRO

Achieves the World's Top Tier Area Productivity

Through the application of 16 nozzle rotary turret heads, The EXCEN PRO achieves an optimum mounting speed of 120,000 CPH. Combined with its compact footprint, this allows unmatched performance per square foot in its class. Samsung's proprietary side view vision system works in conjunction with its world class upward vision system allowing both pre and post part placement inspection. Mixed operating modes allow simultaneous mounting of different boards. With the new SMART feeder, automatic loading and splicing of components reduces changeover and part replenishment times.

- 120,000 CPH(Optimum)
- Ultra Slim Design with a Total Length of 1.25m
- Uses High Rotary Modular Head
- Side-view Vision System(SVS)
  - Monitoring before & after placement
- Mixed Production of Different Boards/ Independent Production at the Front and Rear/ Non-stop Change-over of Device Types
- High-Speed and High Precision Feeder
- SMART Feeder
  - World's first Auto Splicing and Auto Loading

reddot design award winner 2012

PIN UP DESIGN AWARDS

EXCEN PRO

Achieves the World's Top Tier Area Productivity

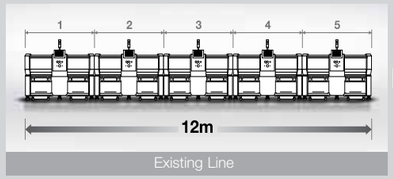
HIGH PERFORMANCE

- Achieves 120,000 CPH with a High-Speed Rotary Head With 16 Nozzles
- Increases Actual Productivity by Reducing the Waiting Time between Part Pickup and Placement to Zero(Cycloidal Motion)
- Ultra Slim Design with a Total Length of 1.25m with Line Length and Area Productivity Being 50% and 200% of Those of Existing High-Speed Lines, Respectively

120,000 CPH

16-Spindles High-Speed Head

1.25m Ultra-SLIM Design



Existing Line

Line Length **50%**

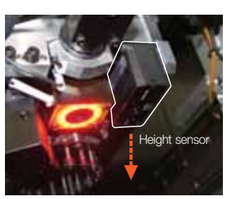
Area Productivity **200%**

EXCEN PRO Line

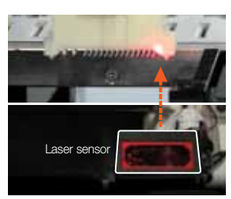
HIGH RELIABILITY

- Side-view Vision System(SVS)
  - · Provides the Side-view Vision System (SVS), a function to inspect part status of before and after placement, as well as various functions that can improve placement accuracy and prevent defects.
- Uses an Electrically Driven High-Speed and High Precision Feeder
  - · Enables a stable supply of parts through high performance servo control
  - · Uses Samsung's original high precision accuracy compensation algorithm and mechanism to minimize accuracy deviation over time
- Automatic Pickup Position Correction Function
  - · Feeders have a fiducial mark for automatic recognition of part pockets · Uses automatic feeding after reel replacement
  - · The function to recognize the nozzle center after automatic nozzle change allows for automatic correction of nozzle offset
  - · Automatic correction of pickup error during pickup through part center recognition offset
- Automatic Pickup Height Compensation · Automatically compensates for part pickup height using a height sensor
- Lead Unlock Check · Recognizes unlocked(or bent) lead using a laser sensor

Side-view Vision System



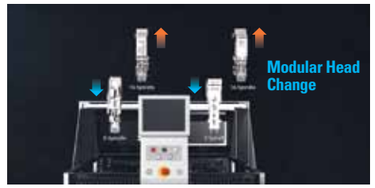
Automatic Pickup Height Compensation



Lead Unlock Check

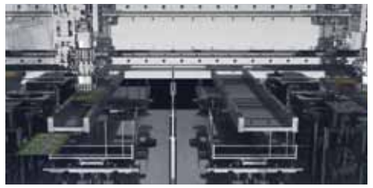
FLEXIBLE PRODUCTION

- Modular Head
  - · Allows for the replacement of High-Speed/multi function/odd-shaped heads at customers
- Allows Simultaneous Production of Several Products Through Independent Production at the Front and Rear as well as Mixed Production of Different Types of Boards
- Allows the Device Type to be Changed at a Lane without Stopping the Machine by Providing a Non-stop Device Type Change Function
  - · Increased machine operation efficiency through advance preparation using a docking cart
- Allows Maximization of Actual Productivity Through Various Operation Modes
  - · Independent production at the front and rear mixed production of different boards, non-stop device type change, part placement in turns(Loading Time Zero)



Modular Head

Mixed Production of Different Boards



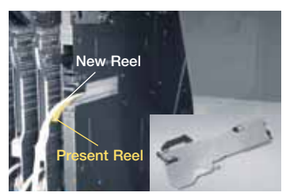
Non-stop Device Change

EASY OPERATION

- Secures Feeder Operational Convenience by using a Super Slim Single Lane Electrically Driven Feeder
- One-touch Exchange
  - · Minimizes device type changing time by using a one-touch exchange method to the docking cart, ANC and backup plate
- SMART Feeder
  - · Achieves the world's first feeder with Auto Splicing and Auto Loading functions · Applicable to reels with a small quantity of parts
  - · Maximizes work convenience and actual productivity by automating the splicing process for part reel replacement which has been performed by hand
- Direct/Side Tray Feeder Support
  - · Allows for maximized use of a feeder and minimized feeder slot loss when using a tray feeder
- POP Support
  - · Allows for high precision POP work at High-Speed by supporting a sliding type flux dipping unit

Electrically Driven Feeder

One-touch Docking Cart Change



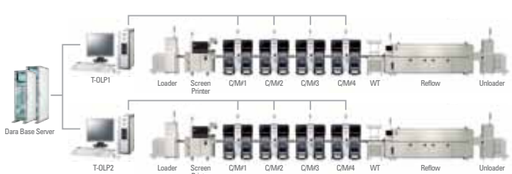
SMART Feeder

Tray Feeder

Flux Dipping Unit

T-SOLUTION

As a database based, integrated environmental system that was developed independently by Samsung Techwin, T-Solution is an integrated management solution.
By centralizing the user management and operational environment between software modules, T-Solution provides an integrated software environment and performs integrated management of all programs in the workplace with the file server.



- **Provides an e-manual**
  - · Provides Android App Manual SW CD by Default
  - · Optimizes the Screen in the App Manual Galaxy Tab 10.1