PROSEM

SIMPLIFYING

THE COMPLEXITY

wedeliver

SMT ASSEMBLY SOLUTIONS

AT YOUR DOORSTEP

FOLLOW US

PROSEM

PROSEM is an acronym for Professional Solutions for Electronic Manufacturing. Since starting business in 2002, PROSEM has been a One-Stop fully integrated supplier of world class Equipment and Services for the Electronic Manufacturing Industry in the Indian subcontinent.

Our Head Office in New Delhi, caters to the customers in the North and East of India, and regional offices in Mumbai, Pune and Chennai cater to the customers in West and South of India.

PROSEM is the Exclusive Representative of Kulicke & Soffa (erstwhile Assembléon) make SMT Pick & Place Machines in India. PROSEM also represents Faroad, HCT amongst other brands, covering an entire range of Pick & Place equipment, Printers, Reflow Ovens, Process Equipment, AOIs, SPIs, Board Handling Equipment, etc.

OUR MISSION

To enable our Customers to be more cost efficient and competitive in accordance with their long term business objectives and their competitive scenario.

BUSINESS AREAS

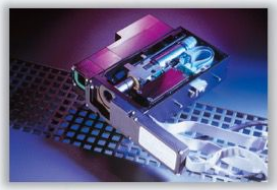
Sale & Service of equipment used for manufacturing of Electronic PCB Assemblies.

Process Quality Support, Project Consultancy and Process Optimization Services.

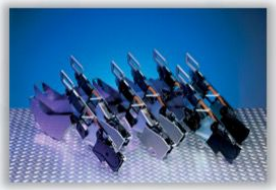
Software Development and Software Programming Support to OEMs.

Kulicke & Soffa
iFLEX

HIGH VOLUME HIGH MIX ASSEMBLY SOLUTION


Single Placement Head


Dual Lane System


Intelligent Feeders


High Accuracy Head

FACTS ▶

- **<1 DPM** — Placement Quality
- **Up to 51 Kcph** — Practical Output of T4* Dual Lane
- **Up to 162** — Part Numbers Handling (8mm)
- **±25µm** — High Placement Accuracy (H1)
- Real-Time Placement Force Control — **Up to 40N**
- Fully Controlled Pick & Place Process
- Bare Die Handling Capability
- Repairable Toolbits

Features

Parameter
Less Than 1 DPM Placement Quality – Best In The Industry
Lightweight Graphite Axes for High Accuracy at High Speeds
High Feeder Count for Common Setups, Minimizing Changeovers
Continuous Monitoring of Component – Pick Up to Placement
Different Modes of Production (Dual Lane) for Wide Applications
Control Complete Line from Single Master Module
01005 and Bare Die Handling Capability on Standard Machine
Patented Real Time Placement Force Control
PTH, Press Fit Connectors & 50mm Height Capability (H1)

Specifications

Parameter	T4 | T2	H1
IPC9850/9850A Output	51KCPH | 24.3KCPH	7.1KCPH
Accuracy @ Cpk>1	40µm for passives, 25µm for ICs	
Min. Component Size	0.4x0.2mm (01005)	0.6x0.3mm(0201)
Max. Component Size	45 x 45mm	120 x 52mm
Max. Component Height	15mm	25mm
Placement Force	1.5-8N	4.0-60N
Max. PCB Size	555 x 558mm – Single Lane ; 555 x 254mm – Dual Lane	
Feeding Positions (8mm)	162 (Twin Tape)	
Footprint (L x W)	1,170 x 1,855mm	

*Real Placement Outputs can be simulated based on customer's products with ±5% accuracy

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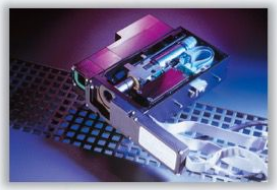
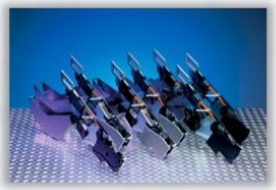
iX SERIES

HIGH VOLUME MEDIUM MIX ASSEMBLY SOLUTION



Single Placement Head



Intelligent Feeders

Placement Robot

FACTS ▶

- **<1 DPM** — Placement Quality
- **Up to 130 Kcph** — Practical Output
- **Up to 260** — Part Numbers Handling (8mm)
- **±35µm** — High Placement Accuracy @ 3σ
- **1.5-8N** — Real-Time Placement Force Control
- Fully Controlled Pick & Place Process
- Bare Die Handling Capability
- Only TRUE Scalable Platform

Features

Parameter
Less Than 1 DPM Placement Quality – Best In The Industry
Best Output Over All Applications (Approx. 6,500CPH Per Robot)*
High Feeder Count for Common Setups, Minimizing Changeovers
Continuous Monitoring of Component – Pick Up to Placement
Scale Up or Scale Down Production Volumes in Minutes
No Line Layout Change for Adding/Removing Robots
0201m and Bare Die Handling Capability on Standard Machine
Patented Real Time Placement Force Control
Lowest Energy Consumption

Specifications

Parameter	iX-302	iX-502
Rated Speed	8,250CPH per Robot	
Accuracy @ Cpk>1	35µm for Passives, 25µm for ICs	
Component Size	0.25x0.125mm (0201m) ~ 45x45mm	
Max. Component Height	10.5mm (Optional 12mm)	
Placement Force	Programmable from 1.5 to 8N	
Max. PCB Size	475 x 390mm	515 x 390mm
Max. Optional PCB Size	1,500mm	
Feeding Positions (8mm)	156 (Twin Tape)	260 (Twin Tape)
Footprint (L x W)	2,760 x 1,705mm	3,720 x 1,705mm

*Real Placement Outputs can be simulated based on customer's products with ±5% accuracy

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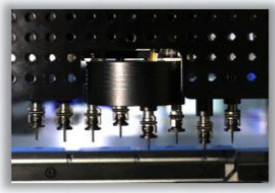
FAROAD CPM-II (T)

HIGHLY FLEXIBLE
MID VOLUME
SMT & LENS MOUNTER



Precise Head Design

Linear Maglev Motor

Electronic Feeders

Lens Feeder (for CPM-IIT)

FACTS ▶

32Kcph / 26Kcph	84	0201~ 36mm²	1ST in its class
Rated Speed/ IPC9850 Speed	Electronic Feeder Positions	Large Component Range	Linear Motors

Placement Accuracy	No tape mess with Tape Cutter	Large Size PCB Handling	Lowest Cost of Ownership
±40µm	0	1.2m	<$50K

Features

Parameter	Details
Vision Parameters	Body Size | Lead/Ball Qty. | Lead/Ball Size/Diameter | Lead/Ball Pitch | etc.
Alignment Type	Vision Alignment by using high speed Line-Scanning Camera
Accuracy Management	Automatic On-Line Calibration
Motion System	SANMOTION™ Linear Motors from SANYO DENKI, Japan
LENS Feeding	LED Lens Feeding (CPM-II T)
Feeding Options	Tape, Stick, Tray, Lens Bowl Feeder
Nozzle Change	Automatic Nozzle Changer

Specifications

Parameter	CPM-II	CPM-IIT
Placement Speed Optimum IPC 9850	 32,000 CPH 26,000 CPH	 26,000 CPH 21,000 CPH
Feeder Positions	42 (Front, Std.) 42 (Rear, Opt.)	16 (Front, Std.) 42 (Rear, Opt.)
Placement Accuracy	±40µm	
PCB Handling	50x50mm ~ 510x460mm Optional 1,200mm PCB Handling	
Component Handling	0201 ~ 100x36mm²	
Feeding Types	Tape, Stick & Tray	
Operating System	Windows 7	

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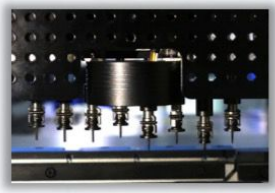
FAROAD CPM-III

HIGHLY FLEXIBLE
HIGH VOLUME
SMT MOUNTER



Precise Head Design

Linear Maglev Motor

Electronic Feeders

High Speed Linear Camera

FACTS ▶

- 65Kcph / 50Kcph — Rated Speed/ IPC9850 Speed
- 152 — Electronic Feeder Positions
- 0201~ 36mm² — Large Component Range
- 1ST in its class — Linear Motors
- Placement Accuracy — ±40µm
- No tape mess with Tape Cutter — 0
- Large Size PCB Handling — 1.2m
- Lowest Cost of Ownership — <$85K

Features

Parameter	Details
Vision Parameters	Body Size | Lead/Ball Qty. | Lead/Ball Size/Diameter | Lead/Ball Pitch | etc.
Alignment Type	Vision Alignment by using high speed Line-Scanning Camera
Accuracy Management	Automatic On-Line Calibration
Motion System	SANMOTION™ Linear Motors from SANYO DENKI, Japan
PCB Transport	3 Stage PCB Transport System
Feeding Options	Tape, Stick, Tray
Nozzle Change	Automatic Nozzle Changer

Specifications

Parameter	Value
Placement Speed Optimum IPC 9850	 65,000 CPH 50,000 CPH
Feeder Positions	76 (Front, Standard) 76 (Rear, Optional)
Placement Accuracy	±40µm
PCB Handling	50x50mm ~ 510x460mm Optional 1,200mm PCB Handling
Component Handling	0201 ~ 100x36mm²
Feeding Types	Tape, Stick & Tray
Operating System	Windows 7

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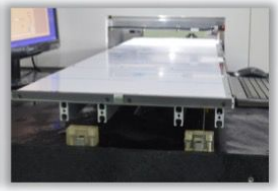
HCT HCT-330/530SV

SEMI-AUTO HIGH VOLUME LONG BOARD LED MOUNTER

Precise 6/8 Nozzle Design

Electronic Feeders

Easy Maintenance



1,500mm Capability

FACTS ▶

46Kcph* 35Kcph#	14/20	0603~ 15mm²	1ST in its class
Rated Speed/ Real Speed	Electronic Feeder Positions (12mm)	Large Component Range	Rigid Marble Base
Placement Accuracy	No Feeder related Downtime	Large Size PCB Handling	Lowest Cost of Ownership
±100µm	0	1.5m	<$35K

Features

Parameter	Details
Vision Parameters	Body Size | LED Size | LED Orientation | Resistor/Capacitor Size | IC Size | IC Orientation etc.
Alignment Type	Vision Alignment by Camera
High Speed Mode	Higher Speed without Vision
Motion System	High Precision Ball Screw System
PCB Transport	1,500mm long Transport Table
Feeder Type	Electronic Tape Feeders
Non Stop Mode	Non Stop Production for Small PCBs

Specifications

Parameter	HCT-330SV	HCT-530SV
Placement Speed (Rated) Real without Vision Real with Vision	40,000 CPH 36,000 CPH 32,000 CPH	46,000 CPH 41,000 CPH 35,000 CPH
Feeder Positions	14	20
Placement Accuracy	±100µm	
PCB Handling	50x50mm ~ 1,500x390mm	
Component Handling	0603 ~ 10mm²	
Feeding Types	8mm, 12mm, 16mm Tape	
Operating System	Windows 7	
Dimensions | Weight	Approx. 2,000*1,150*1,400mm | 1,400Kg	

* Rated Speed is without Vision Alignment. # Real Speed on an LED Tube Light PCB with Vision Alignment

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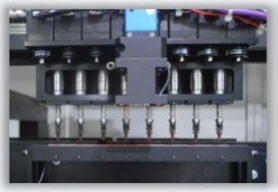
PROSEM

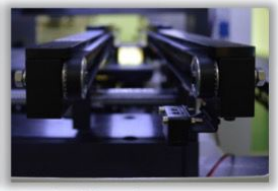
HCT
HCT-1200SV

IN-LINE HIGH VOLUME
LONG BOARD
LED MOUNTER


Precise 8 Nozzle Design


Electronic Feeders


Easy Maintenance


In-Line Conveyor

FACTS ▶

- 42Kcph* / 35Kcph# — Rated Speed/ Real Speed
- 20 — Electronic Feeder Positions (12mm)
- 0603~ 10mm² — Large Component Range
- 1ST in its class — Rigid Marble Base
- Placement Accuracy — ±50µm
- No Feeder related Downtime — 0
- Large Size PCB Handling — 1.2m
- Lowest Cost of Ownership — <$40K

Features

Parameter	Details
Vision Parameters	Body Size | LED Size | LED Orientation | Resistor/Capacitor Size | IC Size | IC Orientation etc.
Alignment Type	Vision Alignment by Camera
High Speed Mode	Higher Speed without Vision
Motion System	High Precision Ball Screw System
PCB Transport	1,500mm long Transport Table
Feeder Type	Electronic Tape Feeders
Non Stop Mode	Non Stop Production for Small PCBs

Specifications

Parameter	Value
Placement Speed (Rated) Real without Vision Real with Vision	42,000 CPH 38,000 CPH 35,000 CPH
Feeder Positions	20 (12mm equivalent)
Placement Accuracy	±50µm
PCB Handling	50x50mm ~ 1,200x380mm
Component Handling	0603 ~ 10mm²
Feeding Types	8mm, 12mm, 16mm Tape
Operating System	Windows 7
Dimensions | Weight	2,000*1,150*1,400mm | 1,680kg

* Rated Speed is without Vision Alignment. # Real Speed on an LED Tube Light PCB with Vision Alignment

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PROSEM

FARQAD
LY-30 Series

SEMI-AUTOMATIC
STENCIL
PRINTER

FACTS ▶

- Touch Screen Control
- PLC Control
- PANASONIC Motor
- Japanese LM Guides
- Dual Metal Squeegee
- PCB Table Up-Down
- PCB Position Adjustment (X|Y|R)
- Lowest Cost of Ownership <$6K*

Specifications

Description	LY-3050	LY-3070	LY-30120
Max. PCB Size	300*500mm	300*700mm	300*1,200mm
PCB Thickness	0.2 – 5.0mm		
PCB Positioning System	Reference Pin/Blocks		
PCB Adjustment Range	±10mm in X & Y | R adjustment by combination of X & Y		
Printing Accuracy	±0.02mm		
Printing Repeatability	±0.02mm		
Air Pressure	0.4 – 0.6MPa		
Power	1ϕ, 220VAC, 50/60Hz		
Dimensions	900*800*1,580mm	1,100*800*1,650mm	1,700*800*1,650mm

* Price Indication For LY-3050

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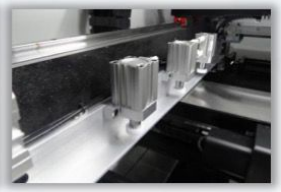
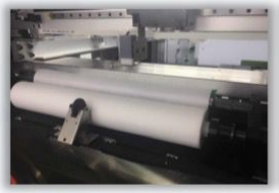
PROSEM

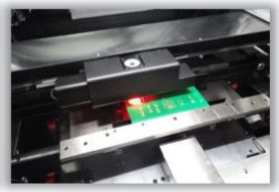
HP-500

HIGH PRECISION FULLY AUTOMATIC STENCIL PRINTER

2D Inspection


Flexible Stencil Clamping


Under-Stencil Cleaning


Vision System

FACTS ▶

- High Speed <8s Cycle Time#
- 2D Inspection (PCB & Stencil)
- High Speed Underside Cleaning
- SMEMA Interface

- Allowable PCB Weight: 5Kg
- Diagonal Warpage Allowance: 1%
- Highly Accurate Print Quality: ±25µm
- Lowest Cost of Ownership: <$35K

Features

Parameter
Floating Print Head With Two Independent Motors
High Accuracy Alignment Camera
Low Cycle Time
High Speed Under-Stencil Cleaning
Single Stage High Speed Conveyor
Programmable Cleaning Mode (Dry | Wet | Vacuum)
2D Inspection System (Paste Coverage & Stencil Aperture Check)
Large Alignment Range (X,Y = ±7mm | θ = 2.0°)
SMEMA Compatibility

Specifications

Parameter	Value
Max. PCB Size	500*340mm*
Stencil Size	470*370mm ~ 820*737mm
Allowed Warpage	Up to 1% Diagonal Length
Transport Speed	100 ~ 1,500mm/s (Programmable)
Squeegee Speed	10 ~ 200mm/s (Programmable)
Printing Accuracy	±25µm @ 6σ
Cycle Time	<8s
Power	220VAC, 1ϕ, 50/60Hz | 1.5KW
Dimensions	1,250*1,440*1,505mm

Excluding Printing Time *600mm PCB Length available in HP-600

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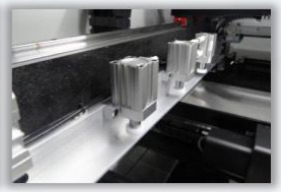
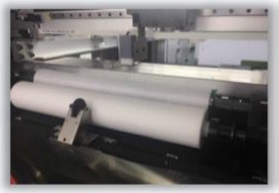
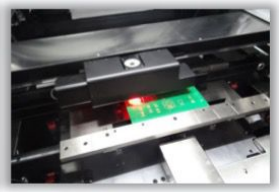
T5T8

LONG BOARD FULLY AUTOMATIC STENCIL PRINTER

2D Inspection


Flexible Stencil Clamping


Under-Stencil Cleaning


Vision System

FACTS ▶

- High Speed <12s Cycle Time#
- 2D Inspection (PCB & Stencil)
- High Speed Underside Cleaning
- SMEMA Interface

Allowable PCB Weight	Diagonal Warpage Allowance	Highly Accurate Print Quality	Lowest Cost of Ownership
5Kg	1%	±25µm	<$45K

Features

Parameter
Floating Print Head With Two Independent Motors
High Accuracy Alignment Camera
Low Cycle Time
High Speed Under-Stencil Cleaning
Single Stage High Speed Conveyor
Programmable Cleaning Mode (Dry | Wet | Vacuum)
2D Inspection System (Paste Coverage & Stencil Aperture Check)
Large Alignment Range (X,Y = ±7mm | θ = 2.0°)
SMEMA Compatibility

Specifications

Parameter	Value
Max. PCB Size	1,200*350mm
Stencil Size	1,100*300mm ~ 1,500*750mm
Allowed Warpage	Up to 1% Diagonal Length
Transport Speed	100 ~ 1,200mm/s (Programmable)
Squeegee Speed	10 ~ 200mm/s (Programmable)
Printing Accuracy	±25µm @ 6σ
Cycle Time	<12s
Power	220VAC, 1ϕ, 50/60Hz | 1.5KW
Dimensions	2,220*1,220*1,500mm

Excluding Printing Time

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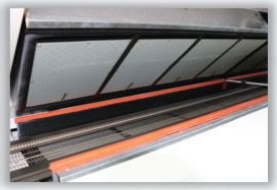
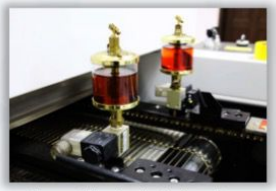
FARQAD LY-6600II

SIX (6) ZONE
LEAD FREE
REFLOW OVEN


Mesh + Chain Transport


Efficient Thermal Design


Auto Chain Lubrication


Fume Extraction System

FACTS ▶

- Air Convection Top & Bottom
- Internal Cooling Zone
- PC Control
- Dual Side SMD PCB Handling
- Running Power Consumption: <5KW
- Temperature Accuracy: ±1°C
- In-Built Temperature Profiler
- Lowest Cost of Ownership: <$15K

Features

Parameter
Forced Air Convection on Top & Bottom Zones
1 Internal Software Controlled Cooling Zone
Chain Transport for Dual-Side SMD PCB Handling
Windows 7 Based PC Control
In-built Temperature Profiler
Low Power Consumption
High Quality Heat Insulation
Low/High Abnormal Temperature Alarm
Lead Free Ready

Specifications

Parameter	Value
Heating Zones	6 Top + 6 Bottom Heating Zones
Heating Length	2,500mm
Cooling Zone	1 Zone, 500mm
PCB Transport	Mesh + Chain Transport
Transport Speed	0 ~ 1,500mm/min
Max. PCB Width	300mm (Chain) | 400mm (Mesh)
Warm-Up Time	Approx. 20 minutes
Power Consumption	Start up | Running – ~ 26kW | 3-5kW
Dimensions | Weight	3,700*1,100*1,450mm | 700Kg

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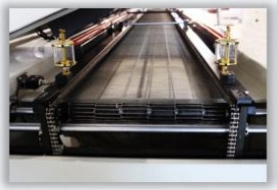
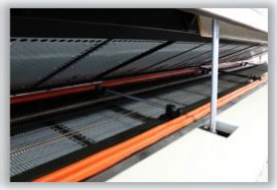
FARAD LY-8800II

8 TO 12 ZONE
LEAD FREE
REFLOW OVEN


Mesh + Chain Transport


Efficient Thermal Design


Fume Extraction System

Wide Range of Options

FACTS ▶

- Air Convection Top & Bottom
- Internal Cooling Zone
- PC Control
- Dual Side SMD PCB Handling
- Running Power Consumption — <8KW
- Temperature Accuracy — ±1°C
- In-Built Temperature Profiler
- Lowest Cost of Ownership — <$25K*

Features

Parameter
Forced Air Convection on Top & Bottom Zones
1 Internal Software Controlled Cooling Zone
Chain Transport for Dual-Side SMD PCB Handling
Windows 7 Based PC Control
In-built Temperature Profiler
Low Power Consumption
High Quality Heat Insulation
Low/High Abnormal Temperature Alarm
Dual Lane, N_2 Options Available

Specifications (for LY-8800II)

Parameter	Value
Heating Zones	8 Top + 8 Bottom Heating Zones
Heating Length	3,110mm
Cooling Zone	2 Zones, 500mm each
PCB Transport	Mesh + Chain Transport
Transport Speed	0 ~ 2,000mm/min
Max. PCB Width	400mm (Chain) | 450mm (Mesh)
Warm-Up Time	Approx. 20 minutes
Power Consumption	Start up | Running – ~ 32kW | 6-8kW
Dimensions | Weight	5,350*1,350*1,550mm | 1,500Kg

Please contact your local sales representative for 10/12 zones models. * Price indicated for 8 zone model.

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PROSEM

FARQAD
LY-500 ~ 1200

INSPECTION CUM LINKING BUFFER CONVEYOR

Manual Width Adjustment


Antistatic Conveyor Belt


Accessible Controls


SMEMA Interface

FACTS ▶


LCD Control Panel


PLC Control


High Quality Motor


Japanese LM Guides

Selectable Pitch (Loader/Unloader)

Standard Magazine Rack

SMEMA Interface

Lowest Cost of Ownership

<$1K*

Features

Parameter
Smooth and Parallel Conveyor Width Adjustment
Inspection and Linking Mode Selection Switch
Overhead LED Lighting (Only in LY-1200)
Conveyor Motor Speed Adjustment
Manual Conveyor Width Adjustment
Antistatic Conveyor Belt
Heavy Base to Avoid Shifting During Production
SMEMA Interface for Interconnection Upstream & Downstream

Specifications

Parameter	LY-500	LY-1200
Max. PCB Width	400mm	
Conveyor Speed	Adjustable Speed Control	
Conveyor Motor	Dual Motors for Front & Rear Rails	
Conveyor Height	900±20mm	
Conveyor Direction	Left-Right (Right To Left Available)	
Interface	SMEMA Interface	
Power	1ϕ, 220VAC, 50/60Hz	
Dimensions (mm)	500*640*900	1,200*760*1,500

* Price Indication For LY-500 | ** Magazines not included | # Without Signal Tower

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PROSEM

FARAD LY-250G

MAGAZINE
LOADER
UNLOADER

PLC Controlled

LCD Control Panel

Precise Up/Down Cylinder

SMEMA Interface

FACTS ▶

- LCD Control Panel
- PLC Control
- High Quality Motor
- Japanese LM Guides
- Selectable Pitch (Loader/Unloader)
- Standard Magazine Rack
- SMEMA Interface
- Lowest Cost of Ownership <$4K*

Features

Parameter
Automatic Magazine Changeover with User Selectable Pitch
Solid Casted Base for Machine Stability
Dual Pneumatic Clamping for Magazine Alignment
Adjustable Pressure for PCB Pusher Arm
Industry Standard Tower Light Display
PLC Controlled
LCD for User Parameter Programming
SMEMA Interface for Interconnection Upstream & Downstream

Specifications

Parameter	LY-250G-U	LY-250G-D
Max. PCB Size	250*330mm	
Lift Up/Down Mechanism	Step Selection of 10, 20, 30, 40, 50mm	
Control System	PLC Based LCD Panel	
Conveyor Height	900±20mm	
Conveyor Direction	Left-Right (Right To Left Available)	
Interface	SMEMA Interface	
Power	1ϕ, 220VAC, 50/60Hz	
Dimensions (mm)#	1,400*850*1,280	1,800*800*1,260

* Magazines not included | # Without Signal Tower

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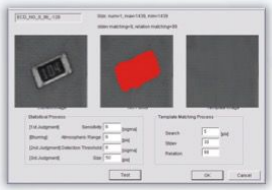
PROSEM

saki 2D AOI

INLINE 2D HIGH RESOLUTION HIGH SPEED AOI


Complex PCB Inspection


Rotated Component Support


User Friendly Operation

Extra Component Detection

FACTS ▶

- Line Color CCD Camera
- LED Lighting Source
- Color Inspection
- High Speed Inspection
- High Resolution
- Multi-Stage Inspection
- 2D Barcode Option
- Lowest Cost of Ownership <$35K[#3]

Features

Parameter
Line Scan Technology – Core Technology of Saki
Tele-centric Lens for Distortion-Free Images
Coaxial Parallel Light Illumination for Eliminating Shadows
20 Different Combinations for Best Inspection Results
Multiple Stage Inspection (Pre/Post Reflow/Wave)
Flat Belt PCB Transfer
Automatic Conveyor Width Adjustment
No Camera, Lens, Gantry Maintenance Costs
MTBF More Than 180 Months

Specifications

Parameter	BF-Frontier II	BF-10S
Max. PCB Size	460*500mm	250*330mm
Inspection Parameters	Presence/Absence, Misalignment, Tombstone, Reverse, Polarity, Bridge, Foreign Material, Solder Absence, Insufficient Solder, Lifted Lead, Lifted Chip, Fillet Defect	
Camera	Line Color CCD Camera	
Tact Time	21s[#1]	18s[#2]
Resolution	18µm	10µm
Lens Type	Tele-Centric Lens	
Dimensions (mm)	850*1,340*1,230	700*1,215*1,104

[#1] For PCB Size 460 x 500mm.
[#2] For PCB Size 250*330mm. For smaller PCBs, Cycle time will be shorter. Includes scanning time.
[#3] For BF-10S

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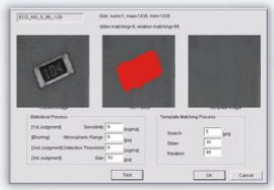
PROSEM

saki 2D AOI

DESKTOP 2D
HIGH RESOLUTION
HIGH SPEED AOI

Complex PCB Inspection



Rotated Component Support

User Friendly Operation

Extra Component Detection

FACTS ▶

- Line Color CCD Camera
- LED Lighting Source
- Color Inspection
- High Speed Inspection
- High Resolution
- Multi-Stage Inspection
- 2D Barcode Option
- Lowest Cost of Ownership <$30K[#3]

Features

Parameter
Line Scan Technology – Core Technology of Saki
Tele-centric Lens for Distortion-Free Images
Coaxial Parallel Light Illumination for Eliminating Shadows
20 Different Combinations for Best Inspection Results
Multiple Stage Inspection (Pre/Post Reflow/Wave)
Flat Belt PCB Transfer
No Camera, Lens, Gantry Maintenance Costs
MTBF More Than 180 Months
2D Barcode Recognition Option

Specifications

Parameter	BF-Sirius	BF-Comet
Max. PCB Size	460*500mm	250*330mm
Inspection Parameters	Presence/Absence, Misalignment, Tombstone, Reverse, Polarity, Bridge, Foreign Material, Insufficient/No Solder, Lifted Lead/Chip, Fillet Defect	
Camera	Line Color CCD Camera	
Tact Time	21s[#1]	18s/13s[#2]
Resolution	18µm	10/18µm
Lens Type	Tele-Centric Lens	
Dimensions (mm)	800*1,280*600	580*850*452

[#1] For PCB Size 460 x 500mm.
[#2] For PCB Size 250*330mm on BF-Comet10 and BF-Comet18 respectively. For smaller PCBs, Cycle time will be shorter. Includes scanning time.
[#3] For BF-Comet

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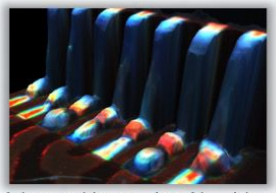
PROSEM

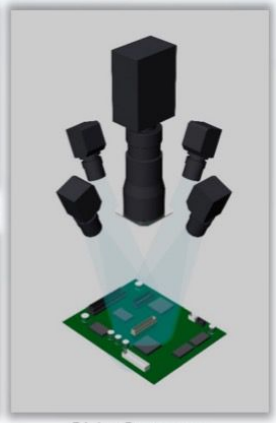
saki 3D AOI

INLINE 3D
HIGH RESOLUTION
HIGH SPEED AOI



Advanced Inspection Algorithm

High Accuracy OCR/OCV



Side Cameras

FACTS ▶

- Fringe Pattern Projection
- LED Lighting Source
- Color Inspection
- High Speed Inspection
- High Resolution
- Multi-Stage Inspection
- 2D Barcode Option
- Lowest Cost of Ownership <$120K[#1]

Features

Parameter
High Resolution Optical Head with Optional Side-Angle Cameras
CoaXPress Camera for Faster Inspection & Measurement Process
Scalable Optical Resolution of 7µm, 12µm and 18µm
High Resolution Linear Scale for Accurate Positioning
Multiple Stage Inspection (Pre/Post Reflow/Wave)
Phase Measurement Profilometry for Height Range 1-20µm
Feedback to Pick & Place
Automatic Conveyor Width Adjustment
Through-hole Device Solder Inspection Verification (Fujiyama Algorithm)

Specifications

Parameter	3Di Series
Max. PCB Size	330*330mm
Inspection Parameters	Presence/Absence, Misalignment, Tombstone, Reverse, Polarity, Bridge, Foreign Material, Solder Absence, Insufficient Solder, Lifted Lead, Lifted Chip, Fillet Defect
Camera	12MP CoaXPress Camera
Resolution	7µm | 12µm | 18µm
Recognition Speed (mm^2/s)	1,063 | 3,600 | 5,700
FOV Size (mm)	22*29 | 36*42 | 41.5*41.5
Dimensions (mm)	850*1,340*1,230

[#1] For 3Di-MS2

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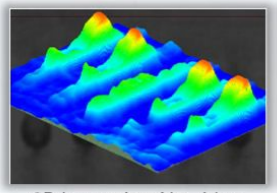
PROSEM

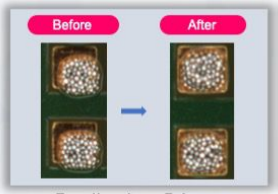
saki 3D SPI

INLINE 3D
HIGH RESOLUTION
HIGH SPEED SPI

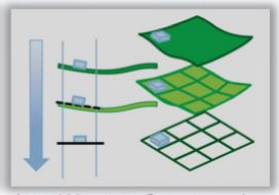


3D Inspection Algorithm

CoaXPress Camera



Feedback to Printer



Auto Warpage Compensation

FACTS ▶

- Fringe Pattern Projection
- LED Lighting Source
- Color Inspection
- High Speed Inspection
- High Resolution
- High Quality Camera Optics
- 2D Barcode Option
- Lowest Cost of Ownership <$75K[#1]

Features

Parameter
High Resolution Optical Head with Multiple Projectors
CoaXPress Camera for Faster Inspection & Measurement Process
Scalable Optical Resolution of 7µm, 12µm and 18µm
High Resolution Linear Scale for Accurate Positioning
Phase Measurement Profilometry for Height Range 1-20µm
Feedback to Printer
Automatic Conveyor Width Adjustment
Saki Self-Programming (SSP) Software for Fast Programming
Dual Lane Option Available

Specifications

Parameter	3Di Series
Max. PCB Size	330*330mm
Inspection Parameters	Solder Paste Height, Volume, Area, Bridging, Offset and Shape
Camera	12MP CoaXPress Camera
Resolution	7µm | 12µm | 18µm
Recognition Speed (mm^2/s)	1,063 | 5,500 | 6,400
Height Measurement Range	500µm
Height Resolution	0.1µm
Dimensions (mm)	850*1,340*1,230

[#1] For 3Si-MS2

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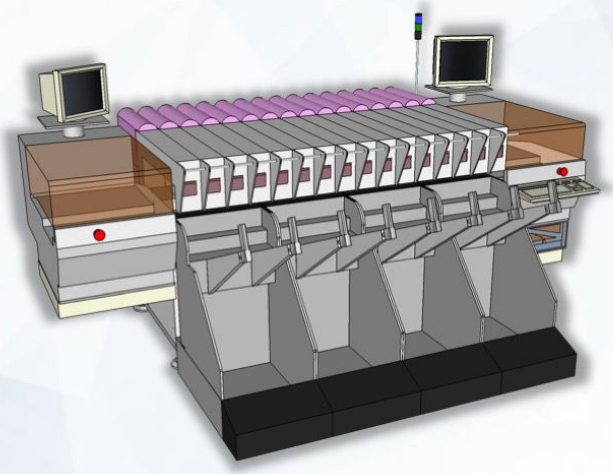
PHILIPS Assembléon

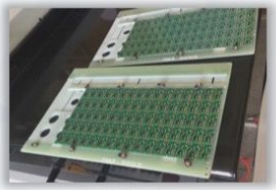
REFURBISHED

FAST COMPONENT MOUNTER (FCM)



Walking Beam Transport

Electronic Feeders



FLEX Pallets

Feeder Trolley

FACTS ▶

- 60Kcph — Practical Output*
- >95% — High Efficiency with Walking Beam
- 1.2m — LED Tube Light PCB Handling
- 1ST in its class — Highest Output per sq.m.
- 0 — Changeover Time with FLEX Pallets
- >300K — LED Tubelight PCBs/month*
- ~2Mn — LED Lamp Drivers/month*
- <€69K — Lowest Cost of Ownership

Features

Details
16x Robots, 16x Placement Heads, 4x Feeder Trolleys
1x Adjustable Carrier Kit
30x 8mm, 5x 12mm,2x 16mm Intelligent Feeders
30x Nozzles for various sizes
First Time Options incl. Carrier Adj. Tool, Multiflex Cal Set, etc.
1,200mm upgrade (H/W & S/W)
Set of Flexible Pallets for Zero Changeover
FULLY REFURBISHED, with 3 Months Comprehensive Warranty

Specifications

Parameter	Value
Rated Speed	96,000CPH
Practical Speed	60,000 – 65,000 CPH
PCB Handling	Up to 1,200 x 350mm
Component Handling	0201 up to 16mm Tape Components
Pick Efficiency	>99.7%
Feeder Type	Intelligent Feeders
Power | Air	400V, 3ϕ, Running ~3kW | 100NL/min
Dimensions | Weight	3,120 x 2,150 x 1,290mm | 2,500kg

* Real Speed on customer product can be simulated with ± 5% Accuracy

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PHILIPS Assembléon

REFURBISHED

FLEXIBLE MOUNTERS GEM SERIES

Fully Refurbished

Calibrated & Tested

Easy Spares Availability

Brand New Copy Feeders

FACTS ▶

- 5-15 Kcph — Practical Output*
- ~99% — As Good As New
- 1.2m — LED Tube Light PCB Handling
- >10 Years — Residual Life
- Comprehensive Warranty: 90 Days
- Return on Investment: <180 Days
- Hassle Free Spares Availability: 0
- Lowest Cost of Ownership: <€20K

Specifications (Topaz)

Parameter	Value
Rated Speed	14,000CPH
Practical Speed	9,000 – 11,000 CPH
PCB Handling	Up to 1,200 x 407mm (Optional)
Component Handling	0402 up to 25mm^2
Accuracy	±80µm
Feeder Type	Pneumatic
Power | Air	400V, 3ϕ, Startup <4.5kW, Running <2kW | <350NL/min at Min. 5.5 Bar
Dimensions | Weight	1,655 x 1,865 x 1,358mm | 1,150kg

Specifications (Topaz X[i])

Parameter	Value
Rated Speed	18,000CPH
Practical Speed	12,000 – 14,000 CPH
PCB Handling	Up to 1,200 x 407mm (Optional)
Component Handling	0201 up to 32mm^2
Accuracy	±60µm
Feeder Type	Pneumatic (Intelligent optional)
Power | Air	400V, 3ϕ, Startup <4kW, Running <2kW | <350NL/min at Min. 5.5 Bar
Dimensions | Weight	1,650 x 1,850 x 1,408mm | 1,570kg

* Different options available

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- Stencil Printers
- Pick & Place Machines
- Lead Free Reflow Ovens
- Wave Soldering Machines
- Inspection Equipment
- Board Handling Equipment
- Process Equipment
- Refurbished Equipment

WHY CHOOSE US?

- Over 16 Years' Experience
- Professional & Trained Engineers
- 24/7 Customer Support
- Pan India Presence
- Production & Process Support
- Spare Parts Support

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