

High Performance Vision Screen Printer HP-520SPI



- 0402 Chip, 0.3 Pitch, \varnothing 0.2MBGA
- Squeegee Precision Control for Pressure (Load-Cell Control)
- Machine CPK Measure Software STD
- Closed-Loop Control Function (Screen Printer-SPI-Offset)
- 3 Stage Auto Width Control
- Registered Mark Position and Coordinate with Mouth Click
- 4 Stage Squeegee Structure
- Stencil Waiver Feature During Cleaning
- Free Size Stencil Change
- Stencil Align & Work Table Up/Down System
- Improve Processing for PCB Due to Based Equipped with Array PCB Inspection S/W
- Saved All Date of Job File and CPK Data by MES(Traceability)
- Solder 2d Inspection System
- Auto Solder Dispenser (Height Measure by Laser Sensor) (Option)
- Dot Dispenser Feature
- Mask, Paste and Squeegee Assembly ID Can Compare each other by Hand Barcode Reader System
- 2d Barcode System
- Part Recognition Sensor On Top of PCB
- High Speed Conveyor System 5sec
- Paper Winding Feature During Cleaning
- PCB X-Axis Moving System for Led Line
- Printing Speed and Pressure Control at Each Section of Printing
- Perfect PCB Clamping with Top Link and Edge Guide

Detech Head Office

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SPECIFICATION	HP-520SPI
TOTAL SYSTEM ALIGNMENT ACCURACY AND REPEATABILITY	2.0Cpk@ ± 12.5μm 6-Sigma / ± 0.0125mm
TOTAL SYSTEM ALIGNMENT ACCURACY AND REPEATABILITY	2.0Cpk@ ± 25μm 6-Sigma / ± 0.025mm
CYCLE TIME (203X145MM PCB)	Excluding Printing: 7 sec *Real Time about 13 secs
STENCIL FRAME SIZE	STD: 600x550mm (LxW) 650x550, 736x736mm
PCB SIZE	50x50 ~ 520mmx420mm (LxW)
PRINT AREA	50x50 ~ 520mmx420mm (LxW)
PCB THICKNESS	0.4mm ~ 6mm
PCB WEIGHT	2KG
PCB WARPAGE	0~8mm (Inc. Thickness)
PCB STOPPER	Camera moves by program automatically and stop board at correct position
PCB SUPPORT	Magnetic Support Pin or Block. Auto adjustment of height according to PCB 'T'. Support Pin Height: 73.9mm. Vacuum Type Support (Option)
PCB CLAMPING (FIXED)	Top Link Clamping (0.8~6t). Top knife edge clamping (0.2~0.8t). Vacuum Type (Option)
PCB UNDER CLEARANCE	30mm
BOARD SIDE(EDGE) PERMISSIBLE RANGE	Top link clamping: Limitlessness. Top knife edge clamping:3mm. Vacuum type: limitlessness
CONVEYOR WIDTH ADJUSTMENT	Programmable (Automatic). In/Work/Out 3 stage conveyor
PCB DIRECTION	Left→Right, Right→Left, Front Fixed (STD)
SQUEEGEE TYPE	Metal (stainless alloy steel) 0.2t, 0.3t, etching blade. User selective
SQUEEGEE LEVEL METHOD	Self-Balancing
SQUEEGEE SPEED	1~150mm/s (Inc. 0.01mm/s)
SQUEEGEE PRESSURE	Load-Cell Application 0.1-50Kg/f (Programmable)
SNAP-OFF	Distance: 0-5.0mm (Inc. 0.01mm) Speed: 1-150mm/sec
VISION CAMERA	Interlaced Scan CCD. *F.O. V 11mmx8mm
VISION BOARD	EURESYS LIBRARY Application
2D INSPECTION	Paste on Pad – Detection of Insufficient Solder (Standard)
FIDUCIALS	Registered Figure Matching, Pattern Matching
FIDUCIALS SIZE	0.4 ~ 5mm
CLEANING SYSTEM	Solvent + Paper + Vacuum Control Software Parameter Programmable
DIMENSION (MM)	2115(L) x 1625(W) x 1457(H) mm
WEIGHT	1500KG
POWER	AC220V, 50/60HZ, 6.0Kw
PNEUMATIC (AIR)	0.5MPa, 40NL/min
OS PROGRAM	Industrial PC, Microsoft Windows, LCD Monitor 17"
HOST COMMUNICATION	SEMEMA Interface (STD) TCP/IP (Option)

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3D INSPECTION SPECIFICATION

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2D/3D Vision Algorithm	2D : Vision Inspection Algorithm 3D : PMP (Phase Measuring Profilometry) Algorithm
MEASUREMENTS PER PAD	Volume, Height, XY Position, Area
MEASUREMENT TYPE OF DEFECTS	Insufficient Paste, Excessive Paste, Shape Deformity, No Paste, Bridge, Paste Displacement
INSPECTION SPEED	38.4cm ² /sec
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FOV (Field of View)	(FOV: 30x30mm) 15μm
SOLDER PASTE HEIGHT RANGE	40 ~ 450 μm
X/Y PIXEL RESOLUTION	20 μm
HEIGHT RESOLUTION	0.4 μm
HEIGHT ACCURACY	2 μm*
TYPICAL LOAD/UNLOAD & FICUDCIAL FIND TIME	6 Seconds
MAX PCB WARP	±3mm
GAGE R&R	< 10%*
XY ROBOT LINEAR MOTOR MOVING SPEED	140mm/sec
RESOLUTION/ACCURACY	11 μm/pulse(±10 μm)
PCB WORKING AREA	Min: 50x50 / Max: 520x420
PCB THICKNESS	0.4 - 5.0mm
CONTROL METHOD	PC Based Control Windows)
PC MONITOR	17" LCD Panel
OPERATION TEMPERATURE	20 - 30°C
OPERATION HUMIDITY	30-80* Non-condensing
STATISTICAL ANALYSIS	Histogram. X Bar & R Chart, X Bar & S Chart, Cp & Cpk, % Gage R&R Data SPI Daily / Weekly / Monthly Reports
INSPECTION POSITION TEACHING	Supports GERBER Format (274X, 274D)

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