

PARAQUADA SMD Pick & Place System

Version 5.1, November 2014

Configuration

		PARA-4	PARA-4C	PARA-2	PARA-2C	PARA-DOBLE
Machine base	Standalone type	●		●		
	Inline type		●		●	●
	Signal tower (3 color)	●	●	●	●	●
	Interior lighting LED	●	●	●	●	●
PCB Handling	Magnetic PCB holder	●		●		
	Inline conveyor 3 stage		●		●	●
	Conveyor width adjustment		○ Manual or auto		○ Manual or auto	Only Auto adjustment
	SMEMA interface		●		●	●
	Conveyor batch mode		●		●	
Control and software	Machine PC with Windows 8.1 and touch screen	●	●	●	●	●
	Software Language De/E/Pol/Cn/Es	●	●	●	●	●
	Remote support software	●	●	●	●	●
Alignment systems	Automatic fiducial recognition	●	●	●	●	●
	Cognex SMD4 vision	●	●	●	●	●
	Multi Field of View (MFOV)	●	●	●	●	●
Dispensing valves ¹⁾ (Max. cartridge size)	Time/pressure valve (30 cm ³)	○	○	○	○	○
	Archimedean screw valve (30 cm ³)	○	○	○	○	○
	Piezo Flow valve (30 cm ³)	○	○	○	○	○
	Jet valve (30 cm ³)	○	○	○	○	○
	P-Jet valve (10 cm ³)	○	○	○	○	○
Various	Bad mark sensing with vision	●	●	●	●	●
	Universal CAD conversion	●	●	●	●	●
	Automatic Placement constraints	●	●	●	●	●
	Process Improvement tool	●	●	●	●	●
	Calibration set P&P / Dispensing	●	●	●	●	●

● standard feature ○ optional feature

Specifications

		PARA-4	PARA-4C	PARA-2	PARA-2C	PARA-DOBLE
Productivity	Theoretical speed / cycle time	15'000 cph / 0.24 sec.		10'500 cph / 0.24 sec.		30'000 cph / 0.24 sec.
	Max. placement speed / cycle time	12'000 cph / 0.3 sec.		8'400 cph / 0.3 sec.		24'000 cph / 0.3 sec.
	Average speed mixed PCB (IPC 9850A)	8'400 cph		6'000 cph		12'000 cph
	Changeover idle time	< 1min (loading job, adjust conveyor, restart production)				
Feeder	Feeder capacity (8 mm tape)	240	up to 200 ²⁾	240	up to 200 ²⁾	up to 400 ²⁾
	Feeder type	hyQ or CLM, programmable, intelligent, cassette or single feeder				
Components	Component size range	01005 - 40 x 40 mm incl. leads; with MFOV up to 80 x 70 mm				
	Mass moment of inertia	60g x cm ²				
	Min. lead pitch	0.3 mm (12 mil)				
	Min. ball diameter / pitch	0.2 mm				
	Min. component height	> 0 mm				
	Max. component height	18 mm (25 mm) ³⁾				
Accuracy	Process height	Up to ± 18 mm (0.71") from zero height (other heights on request)				
	Linear encoder resolution (x, y)	0.04 µm				
	Rotation axis resolution	0.007° (for all axes)				
	Overall placement accuracy (x,y) Chips	51 µm (3σ) ⁴⁾				
PCB	Overall placement accuracy (x,y) QFP	39 µm (3σ) ⁴⁾				
	Min. PCB dimensions	20 x 20mm (0.8" x 0.8")	50 x 50 mm (2" x 2")	20 x 20 mm (0.8" x 0.8")	50 x 50 mm (2" x 2")	
	Max. PCB dimensions	600 x 430 mm (23.6" x 16.9")	600 x 400 mm (23.6" x 15.7")	600 x 430 mm (23.6" x 16.9")	600 x 400 mm (23.6" x 15.7")	
	Extended PCB (less feeders)	on request				
	PCB thickness	0.5 - 3.5 mm (0.02" - 0.13")	0.5 - 5 mm (0.02" - 0.2")	0.5 - 3.5 mm (0.02" - 0.13")	0.5 - 5 mm (0.02" - 0.2")	
	PCB edge clearance	3.0 - 5.0 mm (0.11 - 0.2") (varies with PCB thickness)	Top side 3.0 mm (0.11") / Bottom side 5.0 mm (0.2")	3.0 - 5.0 mm (0.11 - 0.2") (varies with PCB thickness)	Top side 3.0 mm (0.11") Bottom side 5.0 mm (0.2")	
	Max. Board weight	4kg (8.8 lb)				
Clearance below PCB	40 mm (1.57")					



