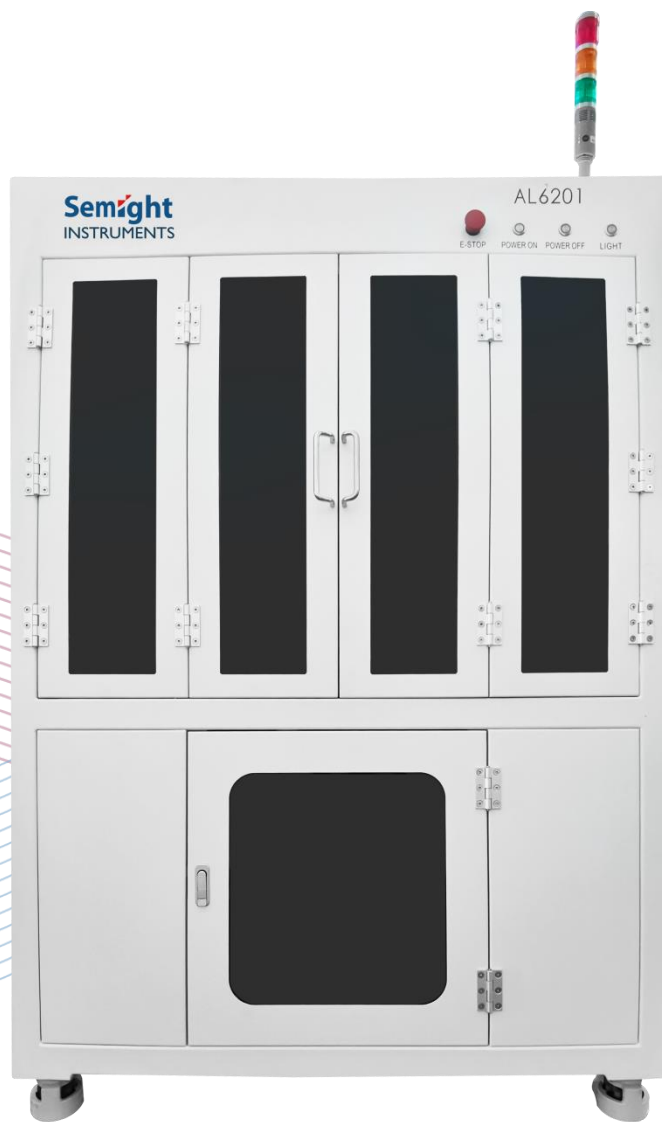# Semight

AL6201

CoC Sorting System

Version 1.4

Product Description

Semight Instruments AL6201 is an automatic CoC loading and unloading equipment specially designed for CoC BI system. The modular design is adopted, so that the product can be quickly installed, disassembled, maintained and switched. AL6201 can automatically load CoC or CoS into the BI fixture, directly put the BI fixture into the CoC BI system for BI or into the CoC test system for testing. Moreover, AL6201 can also be used as a separate sorting system of bare chip or CoC independently.

AL6201 has the following functions: Loading & unloading CoC or CoS among 4 different material boxes, including Semight CoC BI fixture, various carriers made by customer, Gel Pak and blue tape; Support chip ID identification on CoC; Support automatic bin distribution according to the test results.

Key Features

➢ Support chip ID recognition, single product loading<7s, unloading<6s;

➢ Support the minimum CoC adsorption area of 100um X 100um;

➢ Tolerance of incoming material angle ± 30 degrees;

➢ Automatic loading and unloading position accuracy ±50um;

➢ The maximum force of the suction nozzle is adjustable, no more than 24g;

➢ One time success rate of loading & unloading >99.5%;

➢ Support 180° rotation of BI fixture;

➢ Optional sorting according to the test results;

➢ Standard configuration of CoC position recognition camera and CoC ID recognition camera;

> Support database connection and provide MES interface;

System architecture

> Positioning camera: Position CoC on the material box, blue film or carrier;

> OCR camera: Identify CoC Chip ID;

> Suction nozzle: using vacuum for pick up CoC;

> Blue tape platform: Place a 6-inch blue tape;

> Gel Pak platform: Place 2-inch Gel Pak;

> BI fixture platform: Place the Semight CoC BI fixture, which can rotate 180°;

> Handling: Loading and unloading CoC between different carriers by positioning camera;
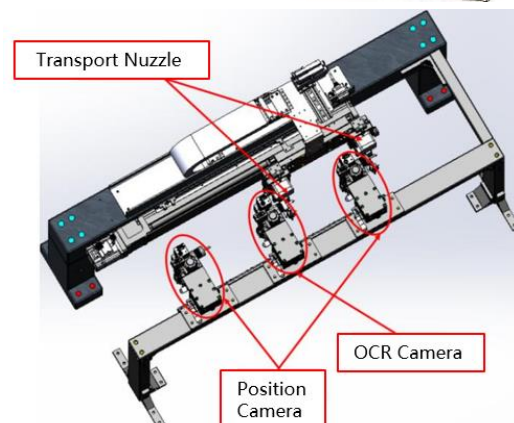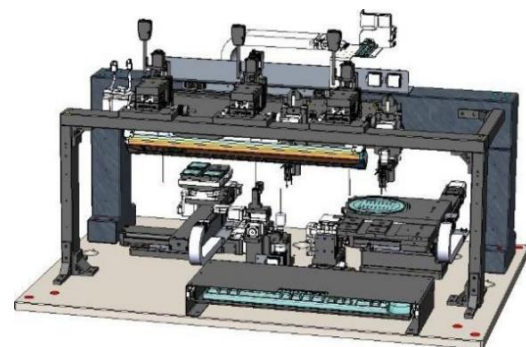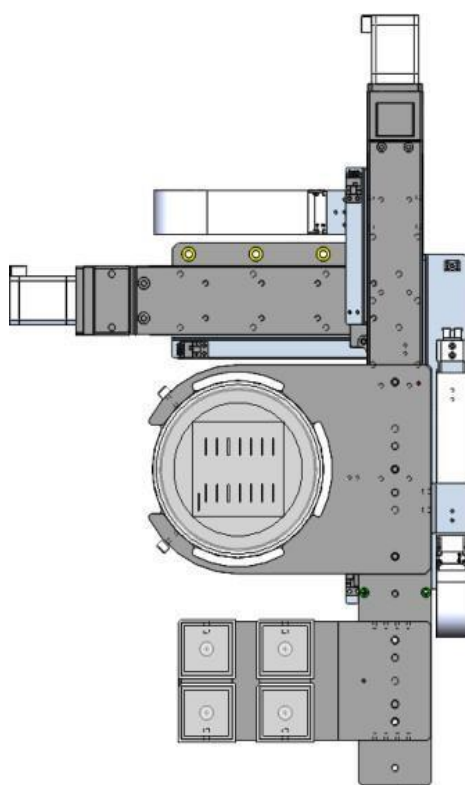
Position Camera+ OCR Camera+ Nozzle & Different seat

Software function

The software of Semight Instruments CoC automatic loading and unloading system is simple and very flexible, which can be configured with loading and unloading mode, material box mode, and parameter settings of all moving axes and cameras; It also includes automatic, semi-automatic and manual debugging mode selection; It can be configured with database as well, or MES interface is provided according to customer requirements.
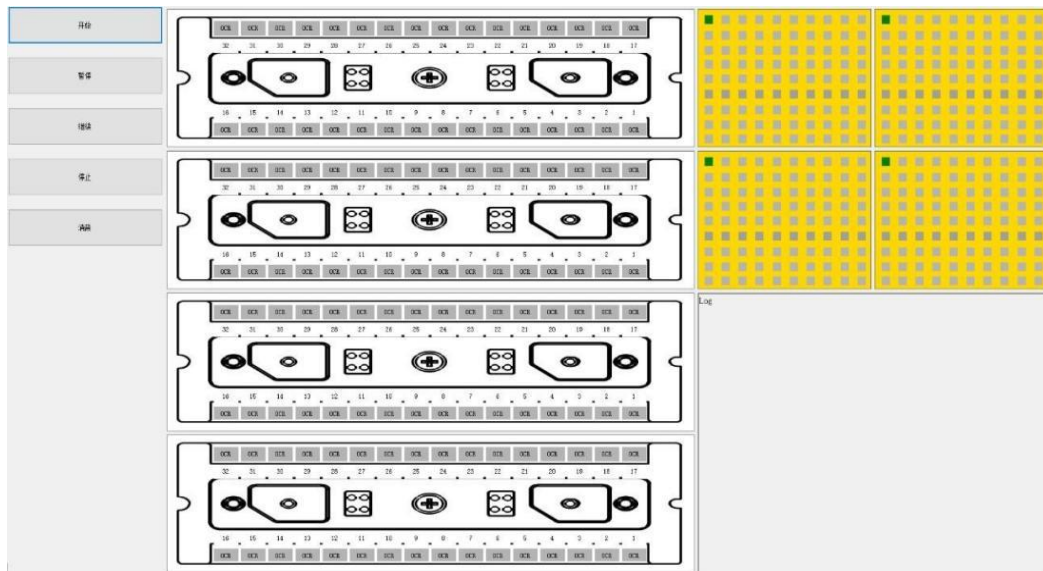
Software interface

Technical Specification

System Specification	Maximum CoC size	<5X5mm
	Minimum suction nozzle vacuum area	100um X 100um
	Number of Gel Pak	Up to 8 for 2 inches (excluding blue film)
	Number of blue films	1 for 6 inches
	Number of BI fixtures	4
	ID recognition success rate	99% (no obvious defect or occlusion on ID)
	CoC loading time	7s/ pcs
	CoC unloading time	6s/pcs
	One-time success rate of transfer	99%
	Loading and unloading position accuracy	<±50um
	Adaptive range of incoming angle	±30 degree
	Suction force of nozzle	<24g adjustable
	Assembly accuracy	
	X-axis accuracy	Position accuracy±20um, repeat accuracy±3um
	X axis accuracy of left loading movement	Position accuracy±20um, repeat accuracy±3um
	Y axis accuracy of left loading movement	Position accuracy±20um, repeat accuracy±3um
	Right loading Y-axis accuracy	Position accuracy±20um, repeat accuracy±3um
	Right loading rotary shaft	Position accuracy 0.1 degree, repetition accuracy ± 0.05 degree, resolution 0.01 degree
	Position camera	3.7um/pixel
Other Parameters	System size（mm）	1280*1010*1870（L*W*H）
	Compressed air pressure	0.4-0.6Mpa
	Input power supply	AC200-240V，50/60Hz 10A
	System weight	<500kg
	Computer manufacturer	Advantech
	Software language	C#
	Database	SQL

Semight

Ordering Information

AL6201	Standard Configuration
FXT	Customer Fixture

Semight

Semight

Contact us

Mail

sales@semight.com

Address

No. 1508, Xiangjiang Road, Suzhou New District (SND), Jiangsu , China

Web

Visit www.semight.com for more information.

*This information is subject to change without notice.

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