AFOSA Series

ALTIX
AUTOMA-TECH™

Smart imaging solutions

For Rigid and Flexible Printed Circuit Board

System features

- Panel size up to 610x762 mm (24″x30″)
- Panel thickness up to 4mm
- 5 or 8kW Collimated Light
- Automatic dual glass / glass tray
- Fully automatic camera positioning
- 2 to 4 CCD cameras
- Auto-alignment re-check
- Laser / Micro via alignment capability
- Artwork changing time < 2 minutes
- ALTIX Imaging Suite
- Telemaintenance system
- 15″ touch screen

Semi - Automatic Double Sided Exposer

with fully Automatic Alignment by CCD Cameras
Innerlayer - Outerlayer - Soldermask

Main characteristics of the AFOSA i/ ie/ ies

Machine description	Semi automatic panel handling with fully automatic alignment by CCD
Applications	i for inner layer exposure ie for inner & outer layer exposure ies for inner, outer layer & solder mask exposure
Panel size	254x254 mm (10" x 10") to 559x660.5 mm (22" x 26") / 610x762 mm (24" x 30")
Panel thickness	50µm to 4mm
Tray system	Automatic dual glass / glass tray
Repeatability	±5µm on glass to glass orientation *
Alignment	By 2 or 4 CCD cameras from the lower side
Alignment Accuracy	±10µm Artwork to Artwork * * at 3σ after vacuum ±20µm Artwork to Panel (for ie & ies types only) *
Vacuum level	Up to 2500 mmH_2O with regulation
Exposure modes	Energy or time
Cycle time	> 2 panels/min for I/L (depending on Operator and Parameters)
Air cleanliness	HEPA Filter class 100
H-M-Interface	15" touch screen with event logging and on-line troubleshooting
Languages	English, Chinese, German, French & Others

Light Engines	Collimated 5kW	Collimated 8kW
Resolution[1]	Down to 0.6mils (15µm)	
Initial Intensity[2,3,4]	21mW/cm² @ 365nm	35mW/cm² @ 365nm
Lamp amount	1 short arc lamp and sliding mirror for double sided exposure	
Uniformity[2,5]	> 85%	
Half collimation angle	1.5° max	
Declination angle	1°	
Image area	Customizable up to 559x660.5 mm (22" x 26") or 610x762 mm (24" x 30")	
Lamp cooling	Air cooled / Closed Loop Lamp Cooling System (CLLC)	

(1) Depending on process variables (2) For an image area / panel size of 21" x 24" (3) Power density measured under the Glass without Artwork (4) measured by a UV meter IL 1400 (International Light) and a UV cell referenced XRL140B (5) according to I_{min}/I_{max}*100%

General Utilities		Collimated 5kW	Collimated 8kW
Power supply		220/400/480V, 3 Phases, 50Hz	
Power consumption		7.5kW	10.5kW
Air supply		6-7bar – 1.5m³/min	
Water supply		15 – 30l/min @ 7bar	20 – 46l/min @ 7bar needed with CLLC option
Exhaust		1100Nm³/h	1100Nm³/h
Machine weight		2200kg	2200kg
Dimensions [mm]	W:	1641	1641
	D:	3377	3377 (3901*)
	H:	2080 (2126*)	2080 (2304*)

(*) with CLLC option

Options

Panel size up to 610x762 mm (24" x 30")
This option allows exposing panel size larger than the standard size of 559x660.5 mm (22" x 26") and up to 610x762 mm (24" x 30")

Closed Loop Lamp Cooling system (CLLC)
No need to draw out air from the clean room in order to help cool the lamps, and no exhaust will be produced during the cooling process.

Dry-film-covered target holes
Illumination and vision software upgrades which help determine the center of a drilled hole covered by concave dry-film layers

Laser / Micro via alignment mode
Hardware and software enhancement for µ-vias detection used along with the standard fiducials for alignment purposes

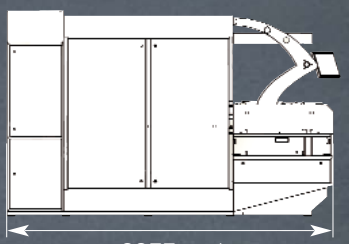
Modem & Tele-maintenance
This option allows service personnel to check the machine condition and performance remotely

Imaging with us !

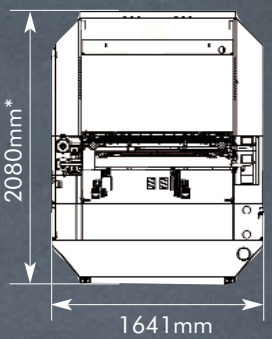
AFOSA

Collimated Light
5kW / 8kW

Side view



Front view



* Values for AFOSA collimated light 5 kW

ALTIX AUTOMA-TECH™
27100 Val de Reuil - France
Tel : +33 (0)2 32 63 36 36
Fax : +33 (0)2 32 63 36 37
central@altix-automatech.com
www.altix-automatech.com