

Laser System for PCB Drilling / Routing

DR20XX DR30XX



Benefits

- Flexible platform design with highest degree of customization for various application (Drilling, Routing, Ablation, Marking)
- Flexible chuck design
- Industry 4.0 ready
- Automatic camera calibration
- Automated vision system for precision alignment and scaling, offset, trapezoidal and rotation compensation

Specifications

Configurations

	DR2000	DR2010	DR3000	DR3010
Laser Type	green Picosecond	UV Picosecond	green Picosecond	UV Picosecond
Wavelength	532 nm	355 nm	532 nm	355 nm
Average Power	up to 50 W	up to 30W	up to 50 W	up to 30W
Frequency	Single shot to 8 MHz	Single shot to 8 MHz	Single shot to 8 MHz	Single shot to 8 MHz
Spot Sizes	15 µm	7 µm	15 µm	7 µm
Max. Panel Size	533 mm x 610 mm	533 mm x 610 mm (21" x 24")	610 mm x 712 mm (24" x 28")	610 mm x 712 mm (24" x 28")
Max. Thickness	5 mm	5 mm	5 mm	5 mm
Accuracy	< ± 10 µm (3 sigma)	< ± 10 µm (3 sigma)	< ± 10 µm (3 sigma)	< ± 10 µm (3 sigma)
Repeatability	< ± 1 µm	< ± 1 µm	< ± 1 µm	< ± 1 µm
Scan Speed	up to 20 m/s	up to 20 m/s	up to 20 m/s	up to 20 m/s
Material Type	FR4, Polyimide, CCL, ABF Coverlay, BT, RT	ABF, FR4, Polyimide, CCL Coverlay, BT, RT	FR4, Polyimide, CCL, ABF, Coverlay, BT, RT	ABF, FR4, Polyimide, CCL, Coverlay, BT, RT

Automation

- Automatic handling of PCB stack (up to 250 mm) - Customized automation solutions - SMEMA and Hermes Interface

Utility Requirements

Power	400 VAC, 3P/N/PE, 60 Hz
Power consumption (peak / average)	12 kVA / 9 kVA
Fuses at customer site	32 Amo. Per phase, slow
Compressed Dry Air (CDA)	min. 6 bar / max. 8 bar
Cooling water supply	Min 12 l/min – max flow 20 l/min (20°C +/- 2 K)
Extraction system	Min. 500m ³ /h

Options

- Single side stack handler with flipping unit - SMEMA and Hermes-Interface for third party automation - MES/ OPC UA interface - Marking functionality - Integration of up to 2 Laser sources on request - Multi substrate chuck - CAD Post Processor (dxf., dwg, gerber, ODB++, IPC-2581)
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Dimensions

DR2000, DR2010	
Width x Depth x Height	1600 mm x 2200 mm x 1920 mm
Height with front door open	2700 mm
Weight	3400 kg
DR3000, DR3010	
Width x Depth x Height	2100 mm x 2400 mm x 1920 mm
Height with front door open	2700 mm
Weight	4500 kg