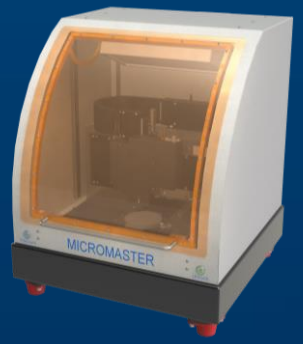
PicoMaster

System Comparison

09 April 2019

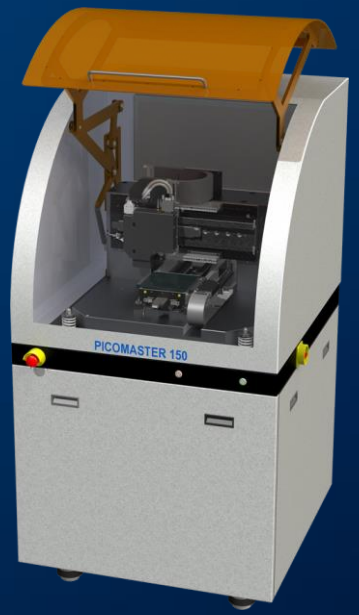


MicroMaster

- Sub micron features, ease of operation and low maintenance

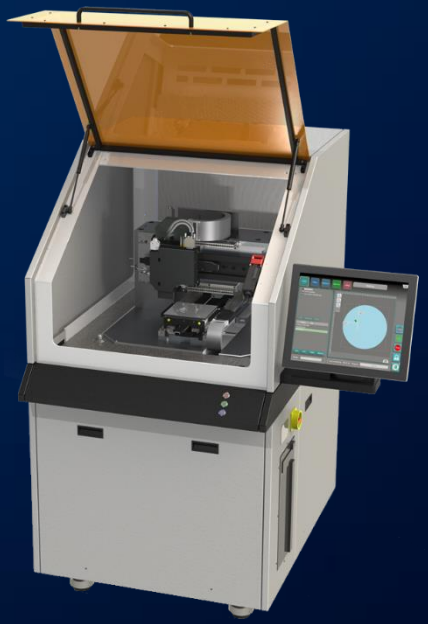
PicoMaster 100

- Enables high resolution Direct Writing for smaller labs



PicoMaster 150

- Cost effective stand-alone system with superb performances



PicoMaster 200

- Industrial system with all options available

Frame

	MicroMaster	PicoMaster 100	PicoMaster 150	PicoMaster 200
Max substrate size	5x5”	5x5”	7x7”	9x9”
Max writable area	4x4”	4x4”	6x6”	8x8”
Table top system	✓	✓		
Stand alone system			✓	✓
Vacuum pump integrated			✓	✓
Control PC integrated			✓	✓
Can be extended (auto loader, coating line etc..)				✓
Compressed air required		✓	✓	✓

Stage

	MicroMaster	PicoMaster 100	PicoMaster 150	PicoMaster 200
Scan axis with air bearing		✓	✓	✓
Step axis with air bearing			✓	✓
Max scan axis speed	200 mm/s	200 mm/s	300 mm/s	400 mm/s
Encoder resolution	2.5 nm	2.5 nm	2 nm	2 nm
Wafer thickness	0-10 mm	0-10 mm	0-10 mm	0-10 mm
Vacuum chuck	✓	✓	✓	✓
Optional: Automated Z axis.	✓	✓	✓	✓

Optics

	MicroMaster	PicoMaster 100	PicoMaster 150	PicoMaster 200
Long life 405nm diode laser	✓	✓	✓	✓
Highest resolution	0.8 µm	0.3 µm	0.3 µm	0.3 µm
Optional: Additional write modes	*1.5 + 2.5 µm*	*0.6 + 0.9 µm*	*0.6 + 0.9 µm*	*0.6 + 0.9 µm*
Automated switching between write modes.	✓	✓	✓	✓
Max 5mW in the spot	✓	✓	✓	✓
4095 Gray scale levels	✓	✓	✓	✓
data rate	2.5 MHz	10 MHz	10 MHz	10 MHz
Real time, laser controlled auto focus	✓	✓	✓	✓
Optional: 375nm laser source	✓	✓	✓	✓

Top side alignment

	MicroMaster	PicoMaster 100	PicoMaster 150	PicoMaster 200
Monchrome 5.2MPixel camera	✓	✓	✓	✓
0.8µm per pixel	✓	✓	✓	✓
Area search with automatic marker recognition	✓	✓	✓	✓
Alignment accuracy	<0.5 µm	<0.3 µm	<0.3 µm	<0.3 µm

Software

	MicroMaster	PicoMaster 100	PicoMaster 150	PicoMaster 200
Bitmap and tiff support	✓	✓	✓	✓
Gerber support for vector writing	✓	✓	✓	✓
Native GDSII Support	✓	✓	✓	✓
Control software included	✓	✓	✓	✓
Process recipes	✓	✓	✓	✓
Activity database	✓	✓	✓	✓
Optional: DXF to Gerber convertor	✓	✓	✓	✓
Optional: Holographic Libraries				✓