LASER MARKING

S-Series

Inline PCB laser marking machine

3-YEAR FACTORY WARRANTY

1D and 2D codes, text and graphics on PCBs and components, with CO2, UV or fiber laser heads. Models S350, S450 and S510 for PCBs up to 510 × 510 mm.



510 × 510	0.03 mm	±0.02 mm	87 600 h
Max. PCB, mm (S510)	Min. text height	Repeat positioning	Laser source life

01 / OVERVIEW

Key features

Codes, text and graphics

1D barcodes, 2D codes, text and graphics, with µm-level resolution.

Very small marks

Text heights down to 0.03 mm, 2D codes from 0.5 × 0.5 mm.

Three laser types

CO2, UV or fiber heads, chosen for the material: PCB, resin, FPC, ceramics, glass, metal, IC chips.

Clean and safe

Smoke detection with PM2.5 alarm, high-power purification unit, closed process behind a safety door.

Vision and traceability

Optical high-precision positioning; optional real-time code reading; MES, CIM and database interfaces.

Long laser life

Laser source lifetime 87 600 hours; optional built-in board flip unit.

02 / TECHNICAL DATA

Machine specification (S350 / S450 / S510)

BOARD HANDLING

PCB size	50 × 50 to 350 × 350 / 450 × 450 / 510 × 510 mm
Marking method	S350: single head, one side; S450: single head, reversible two sides; S510: two heads, top and bottom
Laser heads	1 / 1 / 2
PCB clearance	Top 30 mm, bottom 30 mm
PCB thickness	0.6–6 mm
Direction	L-R, R-L, L-L, R-R
Tracks	Single lane, dual lane optional
Transfer height	900 ± 20 mm
Applications	PCB, resin, FPC, rigid-flex and thin multilayer boards, ceramics, glass, metal, IC chips

MACHINE

Power supply	AC 220 V, 50/60 Hz, 2–2.2 kW
Air pressure	≥ 0.5 MPa
Environment	5–40 °C, 30–80% RH
Machine size	800 × 1300 × 1600 / 1100 × 1500 × 1600 / 1100 × 1500 × 1600 mm
Weight	750 / 800 / 1000 kg

LASER AND MARKING

Laser head type	CO2 5 W / 10 W; UV 3 W / 5 W; fiber 20 W / 100 W
Wavelength	CO2 10.64 µm; UV 355 nm; green 532 nm; fiber 1064 nm
Laser spot size	CO2 0.1 mm; UV 0.04 mm
Cooling	Air cooling
Marking area	50 × 50 to 120 × 120 mm, depending on the head
Laser class	Class 4
3D marking	Supported (option)
2D code size	0.5 × 0.5 to 30 × 30 mm
Marking position accuracy	±0.04 mm
Repeat positioning accuracy	±0.02 mm
Marking and scanning speed	Max. 6000–12000 mm/s, depending on the head

SOFTWARE AND INTEGRATION

Operating system	Windows 10
Software language	English, Chinese
Programming	Whole-board PCB scanning and stitching, visual wizard programming
Vision system	Optical high-precision positioning; real-time code reading inspection (option)
Smoke alarm	PM2.5 smoke and dust alarm system
Line interface	SMEMA
Data interface	MES, CIM, database and customer protocols; work order and code data loaded automatically
Data protocols	HSMS, WebService, HTTP and customer protocols

03 / MARKING CONTENT

What it marks

Text	English letters, numbers, words and symbols; TrueType and SHX fonts.
Barcodes	Code 39, Code 128, Code 93, ITF, NW-7, EAN-13, EAN-8, JAN/UPC, RSS-14, ISBN and more.
2D codes	QR Code, Micro QR Code, iQR Code, Data Matrix, GS1 Data Matrix, PDF417.
Graphics	DXF, BMP, HPGL, JPEG, AI, EPS.

04 / LASER SOURCES

Laser source data

CO2 LASER

Type	CO2, 5 W / 10 W, forced air cooling
Wavelength	10.64 µm
Spot size	0.11 mm
Engraving area	55 × 55 mm per position
Laser class	Class 4

FIBER LASER

Type	Fiber, 30 W, forced air cooling
Wavelength	1.06 µm
Spot size	0.047 mm
Engraving area	99 × 99 mm per position
Laser class	Class 4

UV LASER

Type	UV, 3 W / 5 W, forced air cooling
Wavelength	355 nm
Spot size	0.04 mm
Engraving area	50 × 50 / 70 × 70 mm per position
Laser class	Class 4

Configuration and quotation

sales@interelectronic.com

Károly Peics **+36 30 296 45 05** David Peics **+36 30 217 1226**

www.inte-on.com

■ 3-YEAR FACTORY WARRANTY ON INTEON MACHINES