LASER ENGRAVING FOR YOUR PCBs 30 W fiber
LASER CIF40

Laser CNC system to conceive you PCB board in a couple of minutes. Machine compatible for prototyping and small series

The laser solution

CIF company offers installing a simple and fast laser graving system to make your PCB boards. The LASER CIF40 is a laser graving system using yb technology: fiber that accomplishes the desired graving by using mirrors to direct an amplified light beam.to serve you better and help you work confidently, the laser CIF40 is guaranteed 2 years (pieces and labor in workshop return)

The installation that we offer consists in a key in hand laser system. You will find in this document, some technical information, do not hesitate coming back to CIF for any further complementary question.

- P.C.B.
- RAPID PROTOTYPING
- ASSEMBLY
- PROTECTION
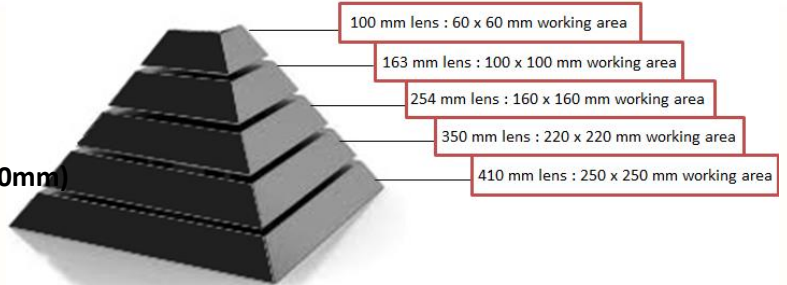- CONTROL
- TURNKEY LABORATORIES

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LASER CIF40 Working station characteristics

Standard delivered engraving head

➢ Flat field lenses F.L. (mm)

➢ Standard working area

310 mm

(200 x 200mm)

100 mm lens : 60 x 60 mm working area

163 mm lens : 100 x 100 mm working area

254 mm lens : 160 x 160 mm working area

350 mm lens : 220 x 220 mm working area

410 mm lens : 250 x 250 mm working area

Settings / Power supply	Laser CIF40
Laser output	
Average output power (W)	30
wavelength (nm)	1046
Repeated frequency (kHz)	30-60
Output power stability	<3%
Exit point diameter (nm)	7±1
M²	<1.8
Pulse width (ns)	90-130
Single pulse energy (mJ)	1
Output fiber length (m)	2 (optional : personalized)
Input power (VDC)	24
Power setting range (%)	10-100
Electric consumption (W)	240
Cooling	Air
Running temperature (°C)	0-40
Galvanometer	
Maximum speed (mm/s)	7000
Accuracy (mm)	0.001
Repositionning accuracy (mm)	±0,003
F-theta len	
Standard working area (mm)	200 x 200
Optionnal working areas (mm)	50 x 50 / 70 x 70 / 175 x 175 / 200 x 200
Line minimum width (mm)	0.01
Minimun characters height (mm)	0.2
Basic settings	
Power supply	0.5 KW / AC 220 V / 50Hz~60Hz (optional 110V)
Equipment size (mm)	840 x 530 x 850
Packaging size (mm)	890 x 650 x 920
Net weight (kg)	100
Gross weight (kg)	130
2D working table (optional) (mm)	300 x 220 x 100
Rotary axis diameter (optional) (mm)	50/80

PRINTED CIRCUIT BOARD

P.C.B.

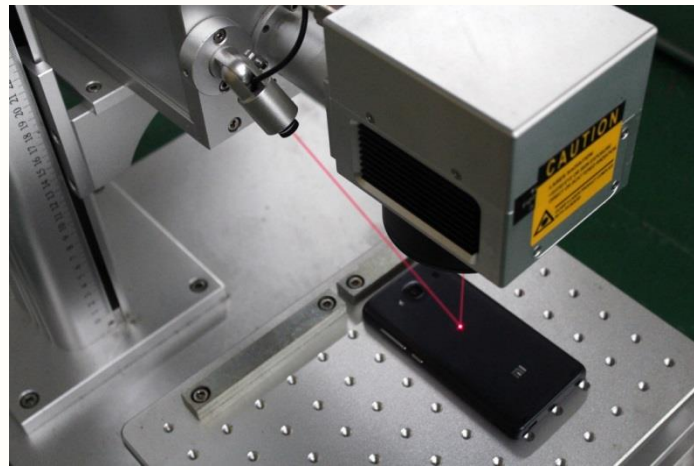RAPID PROTOTYPING

ASSEMBLY

PROTECTION

CONTROL

TURNKEY LABORATORIES

LASER CIF40 Working station characteristics

Available lenses and working areas in mm	70 x 70	100 x 100	175 x 175	200 x 200*
Lens focal length in mm	100	160	254	310
Product maximum height in mm	250	190	96	40
Product maximum width in mm	470	470	470	470
Product maximum depth (door/elec cabinet) in mm	340	340	340	340
Product maximum depth (door/back housing) in mm	690	690	690	690

*Standard lens delivered with the LASER CIF40

Software

All our installations come standard with an EZcad programing software, fully unlocked

➢ Vector writing

➢ Text, line, and rotary text generation (Clockwise and anticlowise) and logo creation

➢ Scale , height/width ratio and rotary functions

➢ DXF and AI logo insert

➢ Matrix point(.TIF/.TIFF) – Frame write (normal and inverted frames)

➢ PLT files import

Machine Codes

➢ Barcode: Code 39 (STD & EXT), 2 of 5, Code 128 (Types A, B & C), UPC-A, etc.

➢ 2D symbol : Datamatrix^{TM} et QR Code, 3DI and RSS14, etc.

LASER CIF40 Working station characteristics

Software functions
➢ **Movement of the working area on the piece, in real time**
➢ Complete filling tool – Automatic filling, horizontal, vertical, spiral, angle, etc.
➢ Complete laser settings and research settings calculation program
➢ All fonts available and creation of personalized fonts
➢ Power measurement possibility
➢ Automatic incrementing hour, date, Julian day, pairing and serialization
➢ Selectable automatic dialing – text, barcodes, 2D codes
➢ Step by step and repeat functions
➢ On-screen simulation
➢ Zoom, slide and deposit functions
➢ Timer to determine with accuracy the production cycle time
➢ Possibility to program in working time
➢ File entry (documents merge) for text an 2D symbols
➢ Creation of compiled files for a production environment
➢ Capacity to command 4 axis movement : X, Y, Z (and optional rotary axis)
➢ User programmation construction for digital calculations, date codes and team code
➢ Color creation on stainless steel and titanium

Provided documentation
➢ Operator manual
➢ Programing manual
➢ Working settings research program
➢ Video programing tutorial
➢ Settings library