



## Mopa Laser Device Cutting and Color Engraving of Metals



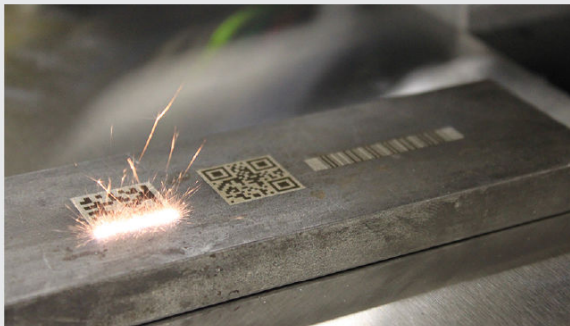
# Mopa Laser Devices

## Color Engraving of Metals

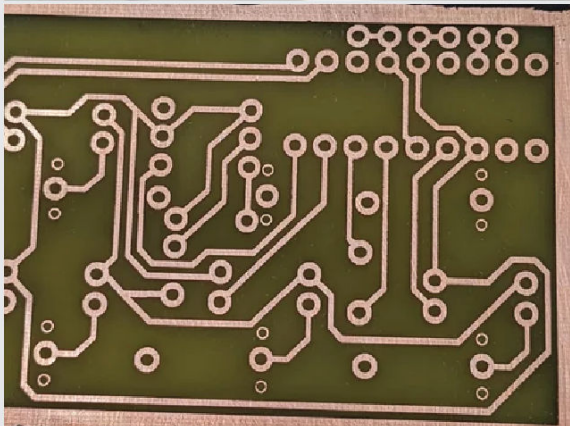
model: LDC- SM -30/60-D/P/H



## Smart Mopa in Application



Deep engraving for serial number, barcode, QR code, logo, standard mark, production and expiration date, etc.



- **Goldsmithing** (Cutting and Color Engraving on Gold)
- **Portrait Engraving** on ID Cards
- **Electronic Components** (Cutting and Engraving on Circuit Boards: Copper Removal, Fiber Cutting, Drilling, and Serial Number/Logo Engraving on Final PCB)
- **Automotive Industry** and Car Accessories
- **Mechanical Parts**
- Engraving on **Medical Instruments**
- **Tile and Ceramic Industry**
- **Printing Industry** and Promotional Gifts

## Smart Mopa Features

The MOPA laser machine is capable of monochrome and holographic seven-color engraving on gold, copper, brass, and stainless steel without the use of ink. Additionally, due to its high cutting precision, it offers minimal material waste and delivers highly detailed engravings. The machine can also perform all stages of printed circuit board (PCB) manufacturing, including circuit pattern engraving, drilling, and fiber cutting.

Moreover, an intelligent module has been added, featuring a camera and an image processing system (hardware) along with the smart Lino software. This system visually displays the material's orientation and position within the software for precise alignment.

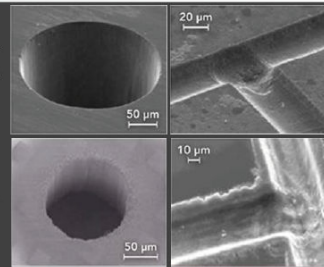
## Smart Mopa Advantages

Color engraving of gold, steel, titanium, brass and copper



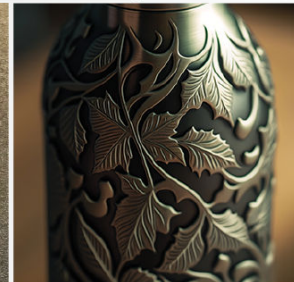
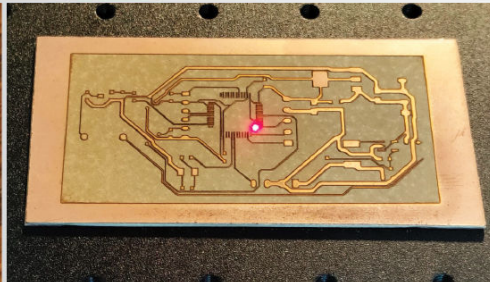
Cut & Engraved by Smart Mopa

Cut & Engraved by Fiber Laser



Significant reduction in material loss and high precision engraving in goldsmithing

Holographic Engraving On Gold and Steel



3D engraving and metal cutting with a depth of 2 mm

PCB Cutting and Engraving

## Technical Specifications

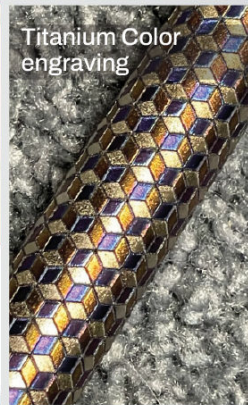
(Fiber Laser & SMART Mopa Laser)

	Fiber Laser	Smart Mopa Laser
Metal Color Engraving	-	✓
3D Engraving	-	✓
Auto Framing	-	✓
Raster to Vector	-	✓
Camera & Image Processing Module	-	✓
Software EZCAD 2	✓	✓
Smart Software LINO	-	✓
Life Span (h)	100000	200000
Laser Source	Raycus (QB)	JPT with American Diode
Power (W)	30 - 50 - 60	30 - 60
Frequency width (KHz)	20 - 80	20 - 1000
Pulse Width (ns)	150	1- 1000
Wavelength (nm)	1064	
Engraving Speed (mm/s)	10000	
Precision (mm)	0.025	
Working Area (cm <sup>2</sup> )	10 - 30	
Compatible Softwares	Illustrator, Photoshop, Corel Draw, AutoCad	
Applicable Formats	ai / dxf / svg / bmp / tif / gif / png / jpg	ai / dxf / svg / bmp / tif / gif / png / jpg / webp / pdf / gc / tga / rd / lbrn

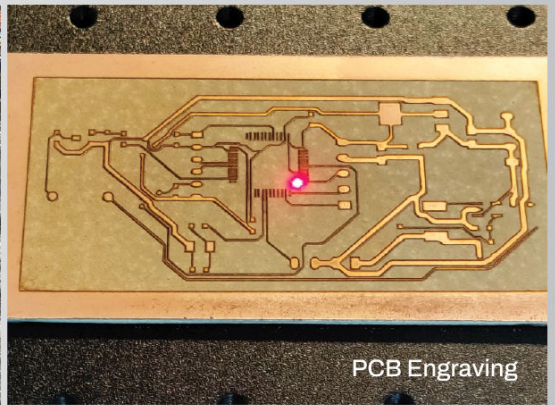
# Material Examples



Gold Color Engraving



Titanium Color engraving



PCB Engraving



Gold Holographic Engraving



Steel Color Engraving



3D Copper Plate Engraving



Silver Coin Engraving



3D Copper Coin Engraving

## Engraving

Color engraving of metals including gold, steel, titanium, iron, brass and copper

All metals including gold, silver, steel, iron, brass, copper, aluminum

All non-transparent non-metals such as multi-style sheets, coated MDF, non-transparent plexiglass, plastic, denim, leather, paper, etc.



Faucet Engraving

## Cutting

All metals including gold, silver, steel, iron, brass and aluminum up to 2mm depth.



Mechanical Part Engraving



3D Brass Engraving

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