HAN'S COMPONENTS

UV Picosecond Laser

HL SERIES

HL-PS-355-50

This series is used in the processing of brittle materials and super-hard materials, and can effectively address the micro-machining bottlenecks in industries such as panel displays, photovoltaics, and semiconductors.

Application

- High-end electronic products appearance logo
- Processing traceability marks with anti-acid corrosion and anti-oxidation functions on metal medical devices
- Cutting and drilling on plastics, oxides and organic materials, or removal of surface coatings
- Ultra-precise markings and invisible QR codes finely marked on glass material
- Replacing chemical corrosion processing depth on metal materials
- Precision moulding of superhard materials

Features

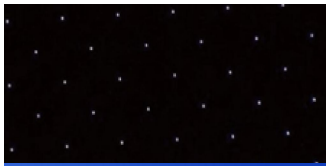
- Using independently developed seed sources
- Selectable burst pulse train quantity and frequency division quantity
- POL/POD function
- 7*24 hours, long-term stable operation
- Single pulse ~ 4MHz repeat frequency adjustable

Sample Display

QR code marking of metal medical devices

Stainless steel watch back cover marked with deep characters

Glass surface frosting



Stainless steel sheet material processing 3μm microporous

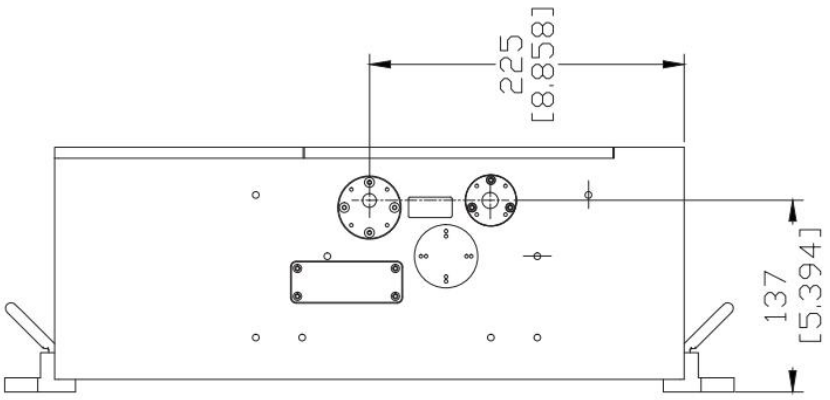
Technical Parameters

	HL-PS-355-50
Optical Parameters	
Wavelength	355 nm
Max. Power	50 W
Repetition Rate	Single pulse-4000kHz
Pulse Width	＜10 ps
Pulse Energy Stability (rms)	＜2% rms
Power Stability	＜2% rms
Beam Characteristics	
Spatial Mode	TEM_{00}
Beam Quality	M^2＜1.3
Polarization Ratio	＞100:1(vertical)
Beam Diameter	1.8mm ± 0.2mm
Divergence Full Angle ($1/e^2$)	＜2 mrad
Circularity	＞ 90%
Beam Pointing Stability	≤±25 μrad/℃
Working Conditions	
Power Supply	100~240V, 50~60Hz
Warm-up Time	Standby to ready＜10 minutes; cold start to readiness < 30 minutes
Temperature Range	15~30°C during working hours; 0~50°C during non-working hours
Humidity Range	10~70%, non-condensation
Cooling Requirements	Water cooling, cooling capacity≥1000W, accuracy±0.1℃, flow rate≥6L/min
Physical Properties	
Laser Dimensions	870mm×450mm×175mm（L x W x H）
Laser Weight	85 kg

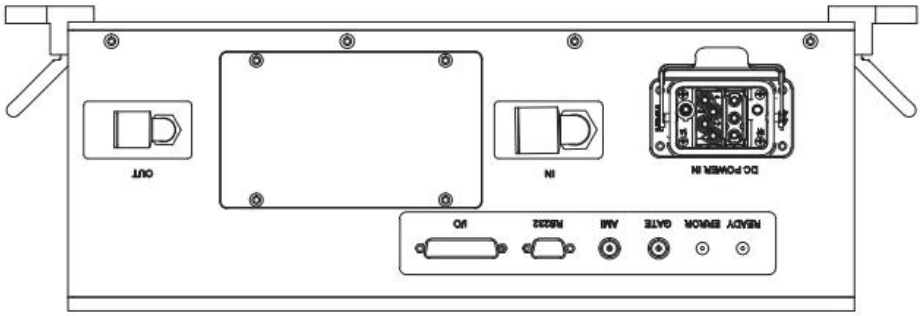
▶ All specifications are typical data and subject to change without notice due to product improvements.

Laser Dimensions (mm)

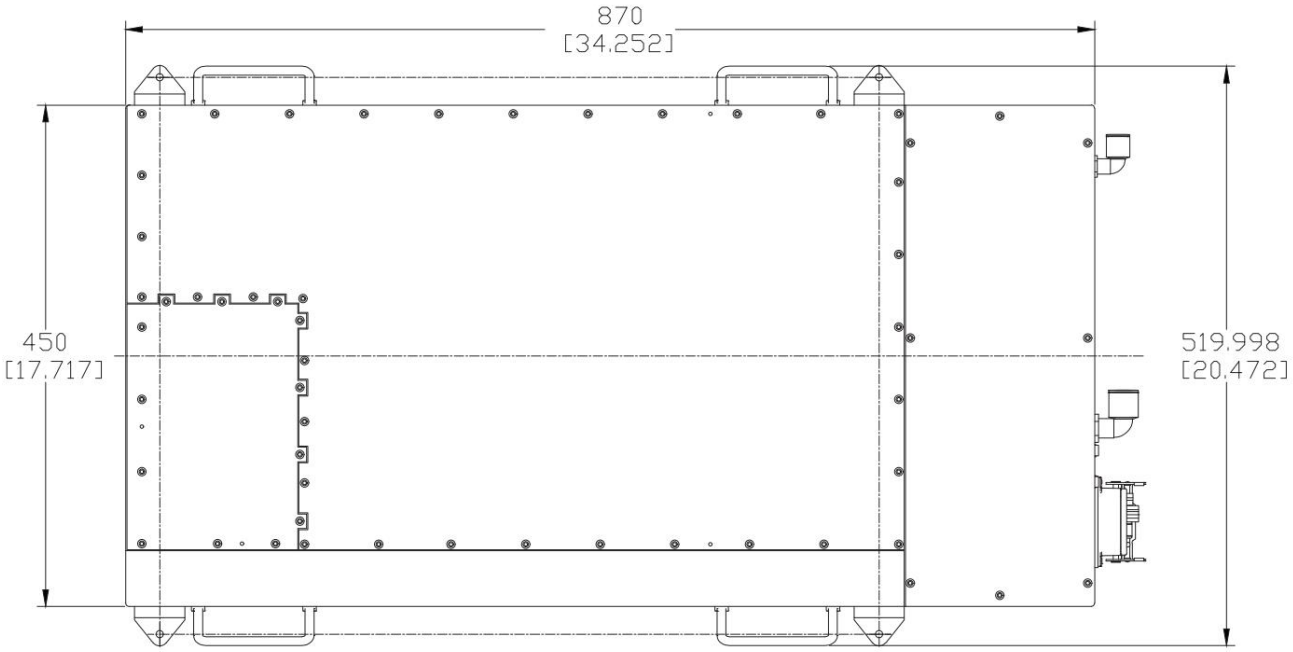
Front View



Back View



Top View



Side View