DFS50 3D Scan System

Focusing on high-end industrial laser applications

DFS50 System Key Advantages:

- Extremely low temperature drift - scanner (over 8 hours long-term offset drift[3] ≤ 50 μrad)
- Dynamic focusing module with extremely high resolution ≤ 0.3 μm
- Suitable for high laser power up to 6kW applications

Typical Applications:

The DFS50 system is composed of large mirror aperture of 50mm and a high-performance dynamic axis. The product enables the smallest spot sizes on a very large image field. The product is ideal for large working field, small spot sizes applications, including marking and cutting of nonmetallic materials such as paper, cardboard, films, textiles, wood, leather; marking, welding and cutting of metal components; cutting of fiber composite materials; electrode foils cutting and welding of bipolar plates in power cell production for electric mobility; etc. These applications are widely utilized by industries such as packaging and printing industries, textile processing, automotive, etc.

The DFS50 exhibits extremely high dynamic axis resolution, exceptional focal spot uniformity and great dynamic performance, high precision, low temperature drift and excellent long-term stability.

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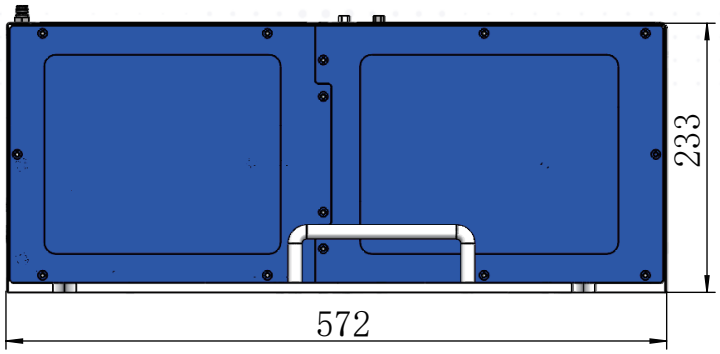
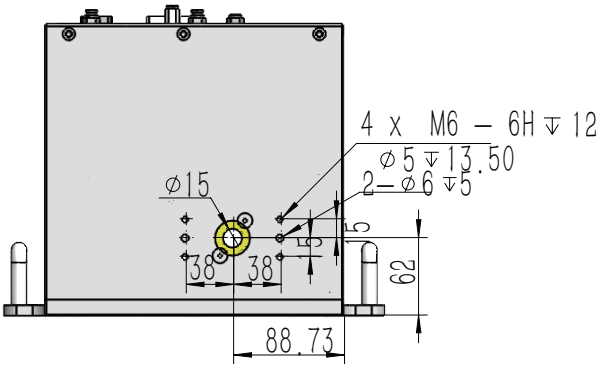
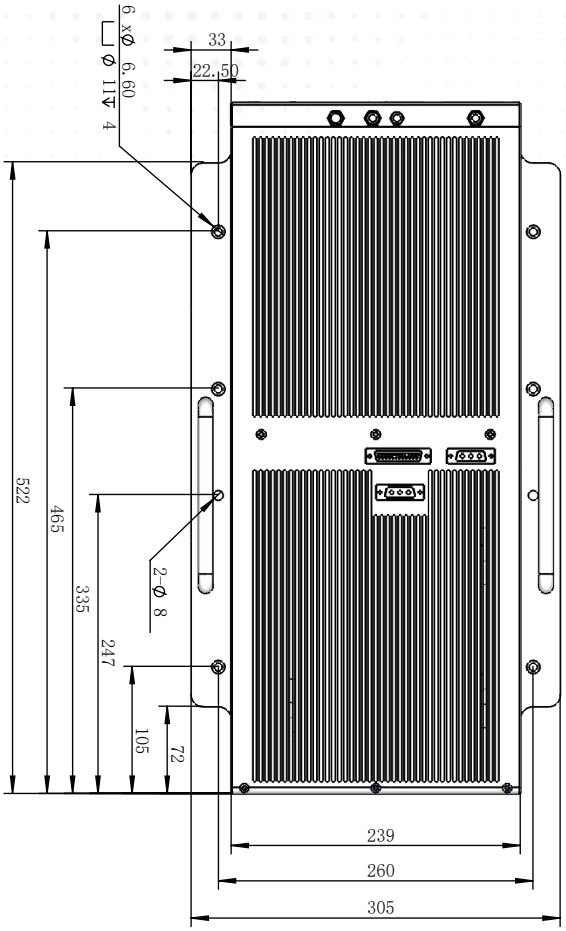
Mechanical Drawings (Dimensions in mm)







Specifications DFS50-1.064-WA

Scan filed (mm x mm)	600 x 600
Wavelength (nm)	1064
Entrance Aperture (mm)	15
Working distance (mm)	740
Average spot size 1/e² (μm)	39
Max. laser power CW (W) for 50% duty cycle (W)	3000 6000

Note:

(1) Working distance: distance from the lower end of the beam exit side of the scan head to the surface of the work plane.

(2) $M^2 = 1$

(3) Long-term temperature drift is given under an ambient temperature environment of 25°C. and a working load under 500W. Temperature drift testing with high laser power is strictly prohibited. High laser power could induce thermal deformations in both the optical and mechanical systems, making it impossible to differentiate whether the drift is originating from galvanometer scanner itself or due to deformations in the optical and mechanical systems.