FEELTEK

15 FR15-F(F15)

Support wavelength: 1064nm

3D Dynamic Focus System

Specific for 3D printing industry

- CNC shell,dust prevention,compact structure,easy to integrate.
- Cooling design, support high-temperature precision environment.
- The adjustment knob is used to switch between different work fields without replacing any parts.
- Double driving Z axis dynamic focus module design,response frequency≥100HZ@±10°,easy to achieve Z depth 150mm@300mmx300mm,applied to flat surface, 3D surface high speed processing.

Application Highlight

APPLICATIONS

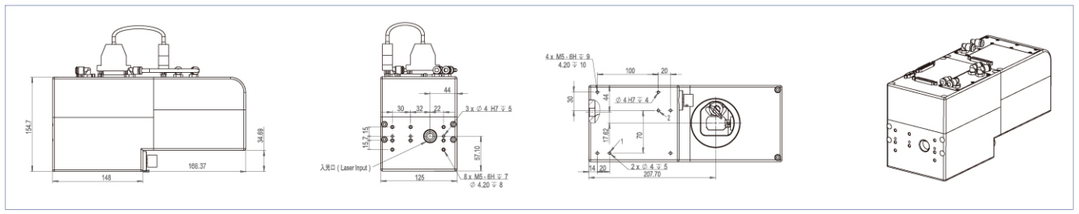
- 3D laser marking
- Engraving
- Clearning
- Precision mould
- 3D surface treatment
- Texture processing
- PCB marking

3D printing

Engraving

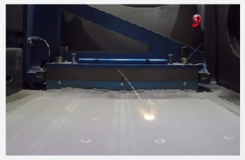
Product Technical Information

	Technical Info.	Specifications					
Items	Input Voltage(VAC)	100V60HZ / 220V50HZ					
	Output Voltage(VDC)	±15VDC					
	Current(A)	5A（2 sets）					
	Output Interface	XY2-100 Protocol					
	Input Interface	Communication interface USB					
	Weight（KG）	7.5					
	Size(mm)	316.7*125*154.7					
Optical Specifications	Aperture Size(mm)	15					
	Input beam diameter(mm)	7、8.5					
Galvanometer Specifications	Product line	Pro			P2		
	Scan Angle(°)	±11			±11		
	Repeatability(μrad)	8			5		
	Max.Gain Drift(ppm/k)	100			50		
	Max.Offset Drift(μrad/k)	30			15		
	Long-term drift over 8h(mrad)	≤0.3			≤0.1		
	Tracking Error(ms)	≤0.23			≤0.18		
	Max.processing speed(charaters/s)	560@200×200			560@200×200		
Working Field & Spot Diameter	Working Field(mm)	100×100×20	200×200×60	300×300×150	400×400×150	500×500×150	600×600×150
	The Min.Spot Diameter@1/e²(mm)	0.018	0.033	0.046	0.059	0.072	0.085
	Focal length(mm)	120	240	360	480	600	720



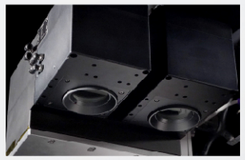
Highlight application: 3D printing

FR15-F(F15) applies with the dynamic focus system control, together with QBH fiber adapter, it can be applicated in SLS, SLM.



High Precision

As the number of processing layers increases, the dynamic axis coordinately adjust the focus and adjust the spot in real-time. The minimum spot of FR15-F(F15) can directly reach 0.018mm.



High Efficiency

To improve higher processing efficiency, FEELTEK develops the multi-scanheads solution, as well as its corresponding platform.

3D Surface Processing

The FR15-F（F15）applies dynamic focus control technology, breaks the limitation of traditional marking, and can do no distortion marking in the large-scale surface, 3D surface, steps, cone surface, slope surface and other objects.