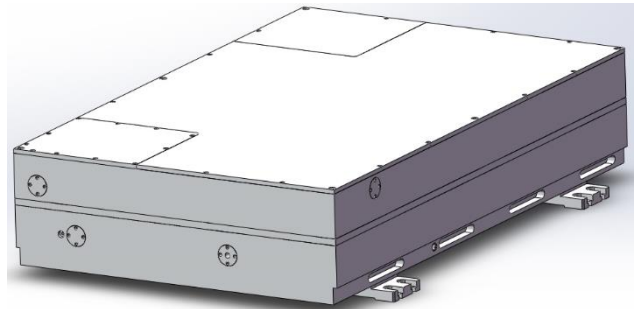


EPEE-30 Picosecond Laser

The EPEE-30 combines the advantages of a free-space solid state amplifier and fiber laser technology to produce 30W of output power, 200 μ J pulse energies, and sub 15ps pulse widths. The fiber seed allows the laser to be more stable, compact, and operationally flexible than traditional solid-state seed lasers. The solid state amplifier enables the output of high pulse energies while maintaining excellent beam quality.

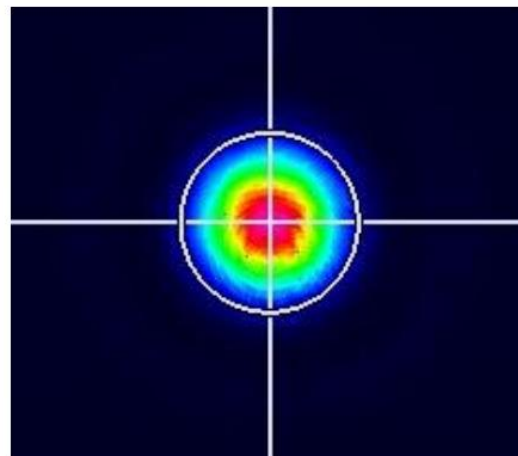
Highlights:

- Average power >30W @1MHz
- 150 – 1000kHz pulse repetition rate
- TEM₀₀, ($M^2 < 1.3$)
- Pulse width <15ps
- Pulse energy >200 μ J
- Burst Mode available
- Compact design
- RS232 and external GATE control
- Assembled in 1000 class cleanroom



Applications:

- ◆ Glass cutting and drilling
- ◆ Semiconductor cutting
- ◆ Precision machining
- ◆ Sapphire cutting and drilling
- ◆ Thin film cutting
- ◆ Scientific applications

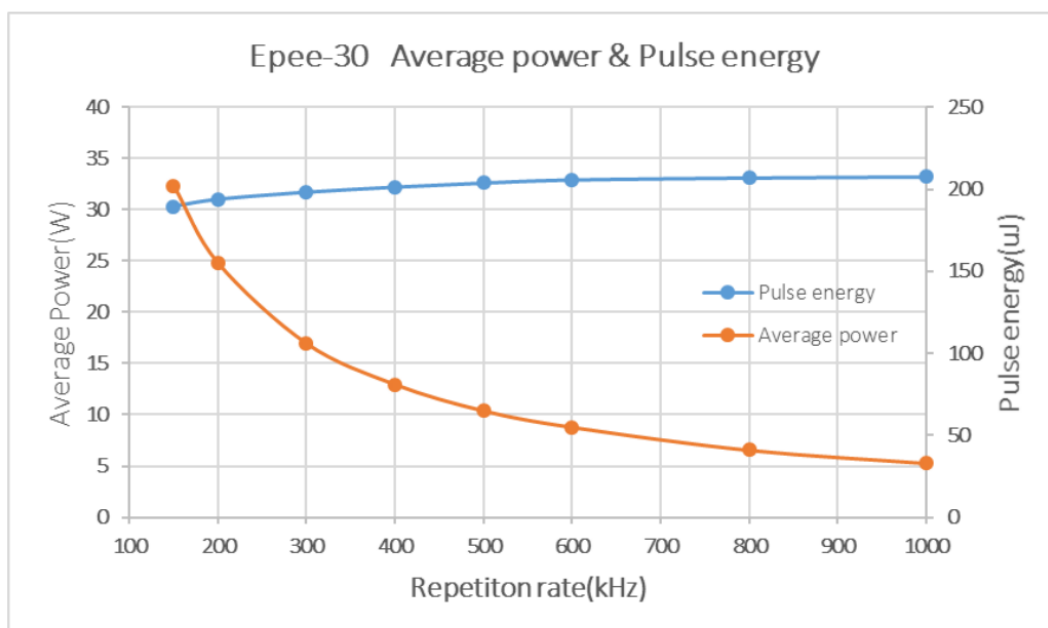


Specifications:

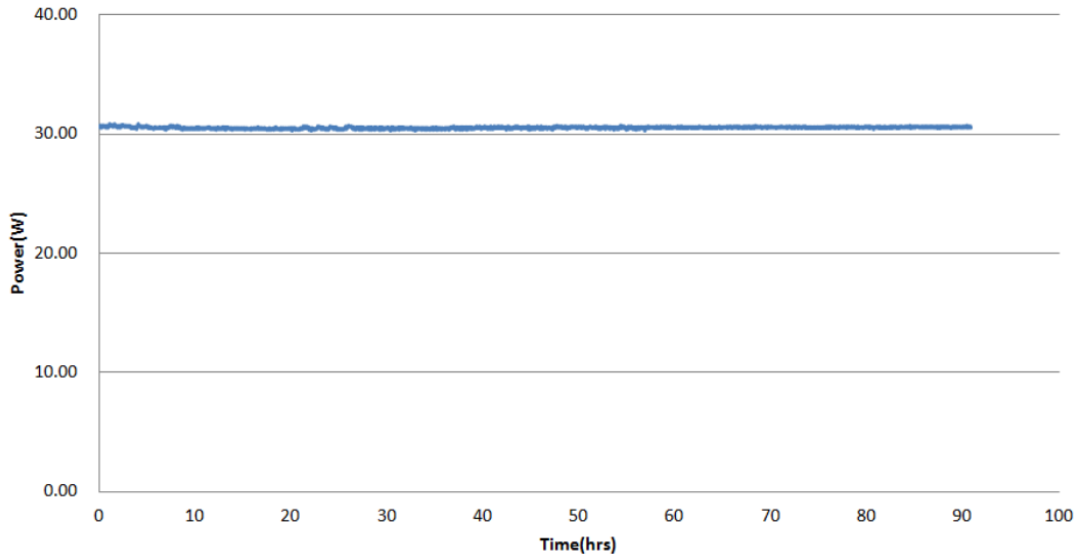
Model	EPEE-30
Wavelength (nm):	1064
Pulse Repetition Rate (kHz):	150 – 1000
Pulse Width (ps) :	<15
Average Power (W):	>30 @1000kHz
Average Power Stability:	<2% rms over 8 hours
Pulse-to-Pulse Instability:	<3% rms
Spatial Mode:	TEM ₀₀ , (M ² <1.3)
Beam Divergence (mrad):	<2 (Full Angle)
1/e ² Beam Diameter (mm):	~1.6
Beam Roundness:	>90%
Pointing stability (μrad):	<50
Polarization Direction:	Vertical
Polarization Ratio:	>100:1
Cooling:	Water-cooling
Relative Humidity:	15 – 30
Ambient Temperature (°C):	-10 – 50
Storage Temperature (°C):	10%-80% (non-condensing)
Warm-up Time (mins):	<10
Operating Voltage (V):	90 – 260

Average Power and Pulse Energy vs. Repetition Rate:

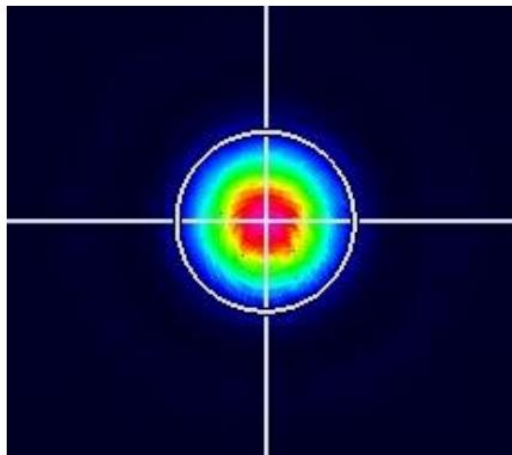
PRF(kHz)	Power(W)	Pulse energy(uJ)
150	30.3	202
200	31.0	155
300	31.7	106
400	32.0	81
500	32.6	65
600	32.9	55
800	33.1	41
1000	33.2	33



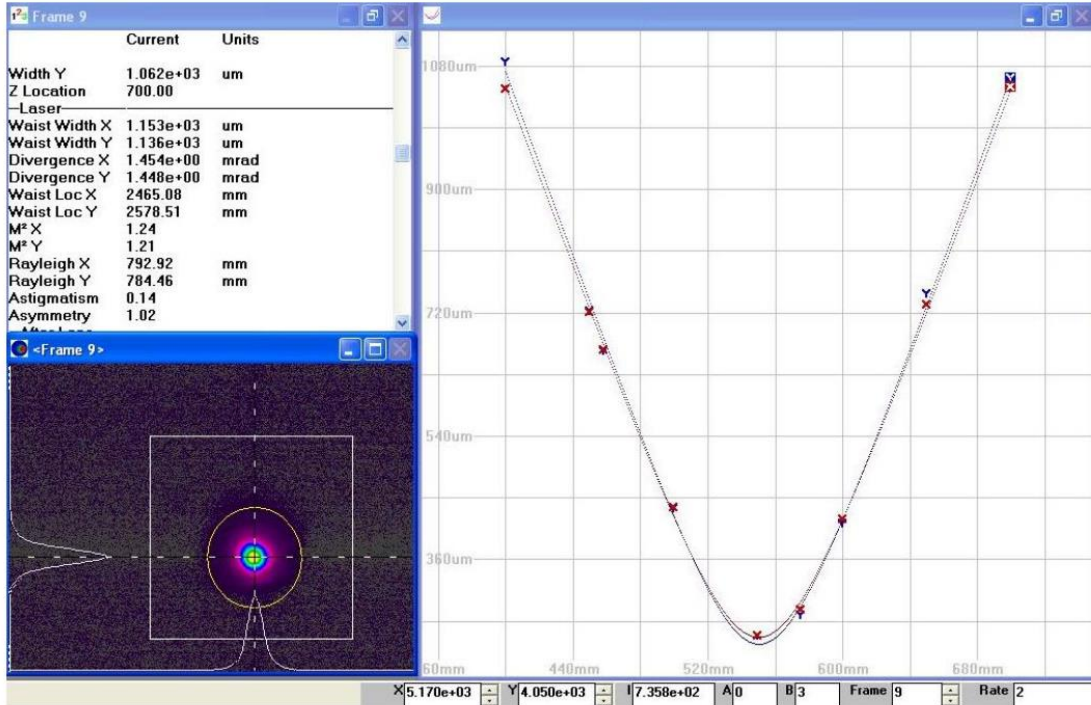
Laser Power Stability:



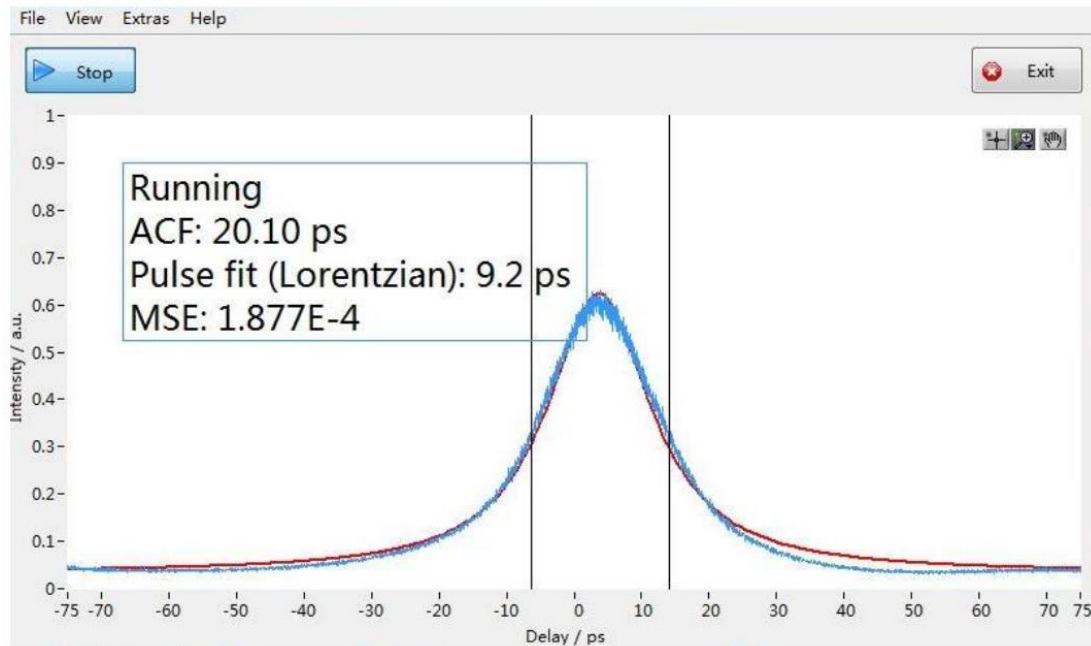
Beam Profile:



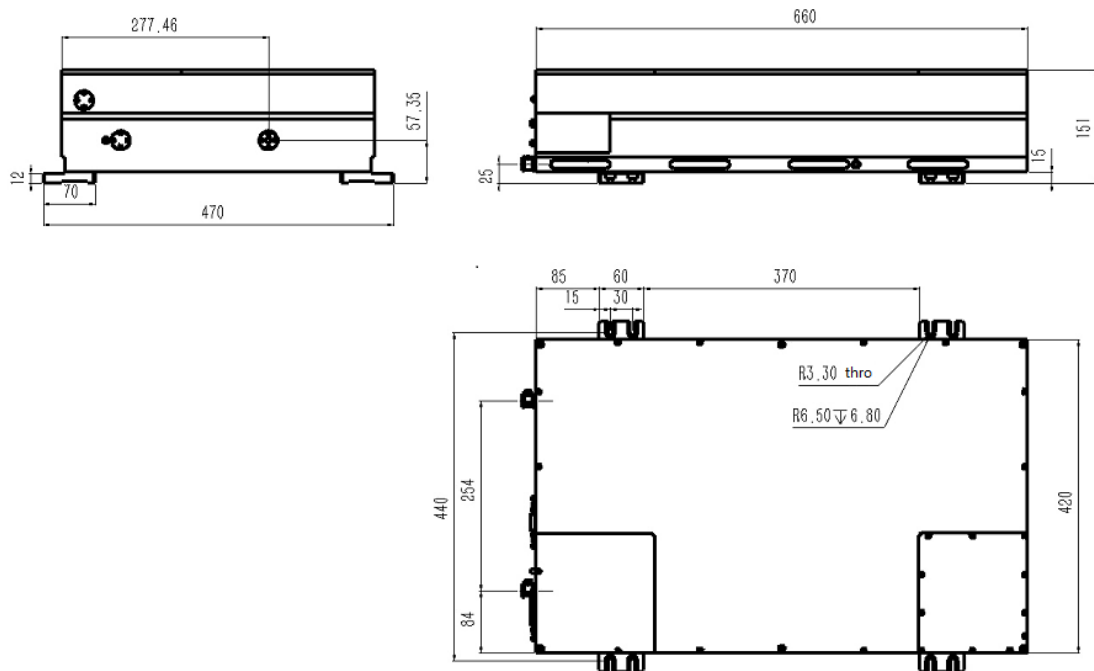
M² Plot:



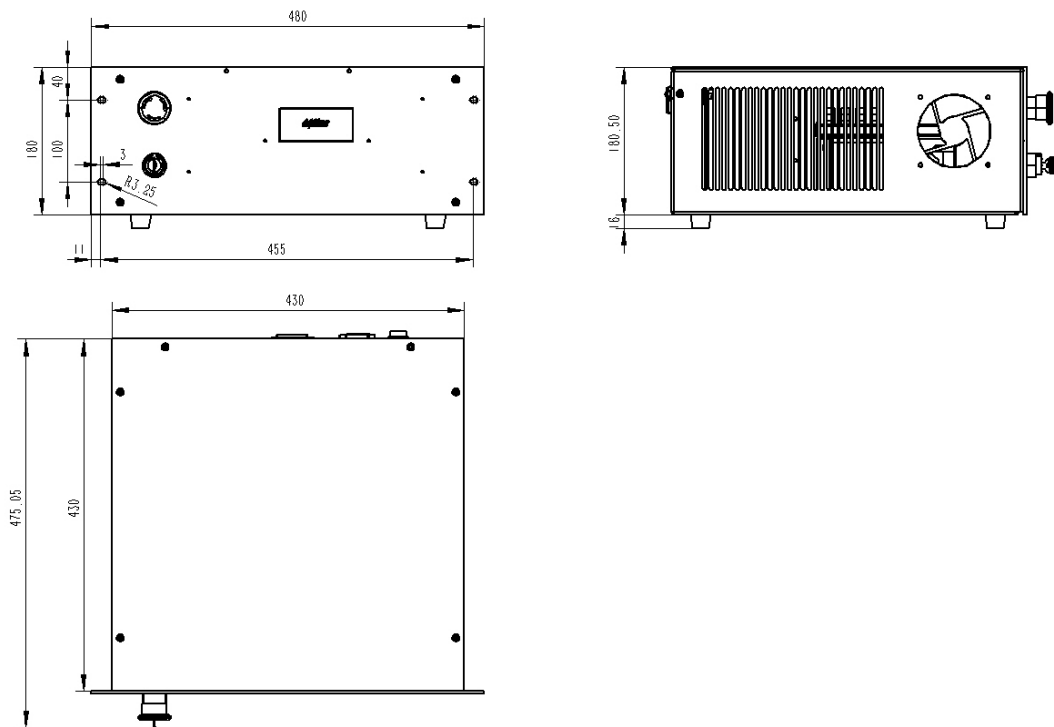
Temporal Profile:



EPEE-30 Laser Head External Dimensions:



EPEE-30 Controller-1 External Dimensions:



EPEE-30 Controller-2 External Dimensions:

