

P302 Picosecond Laser

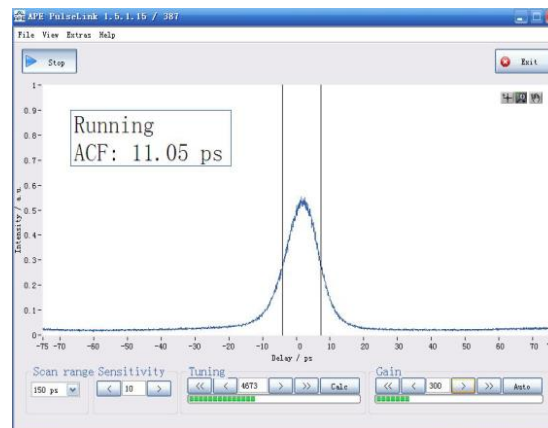
The P302 combines the advantages of an advanced free-space solid state amplifier and fiber laser technology to achieve excellent beam divergence and very narrow pulse widths at high power outputs. The fiber seed allows the laser to be more stable, compact, and operationally flexible than traditional solid state seed lasers. The solid state amplifier enables the output of high pulse energies while maintaining excellent beam quality. With pulse widths in the low picoseconds range, these lasers are capable of delivering superior processing results with smaller heat-affected zones. The pulse repetition rate is adjustable from 50 to 500 kHz.

Highlights:

- Average power >10W @500kHz
- 50 – 500kHz pulse repetition rate
- TEM₀₀, ($M^2 < 1.3$)
- Pulse width <15ps
- Burst Mode available
- Compact design
- RS232 and external GATE control
- High long-term stability
- Field-replaceable laser diode module

Applications:

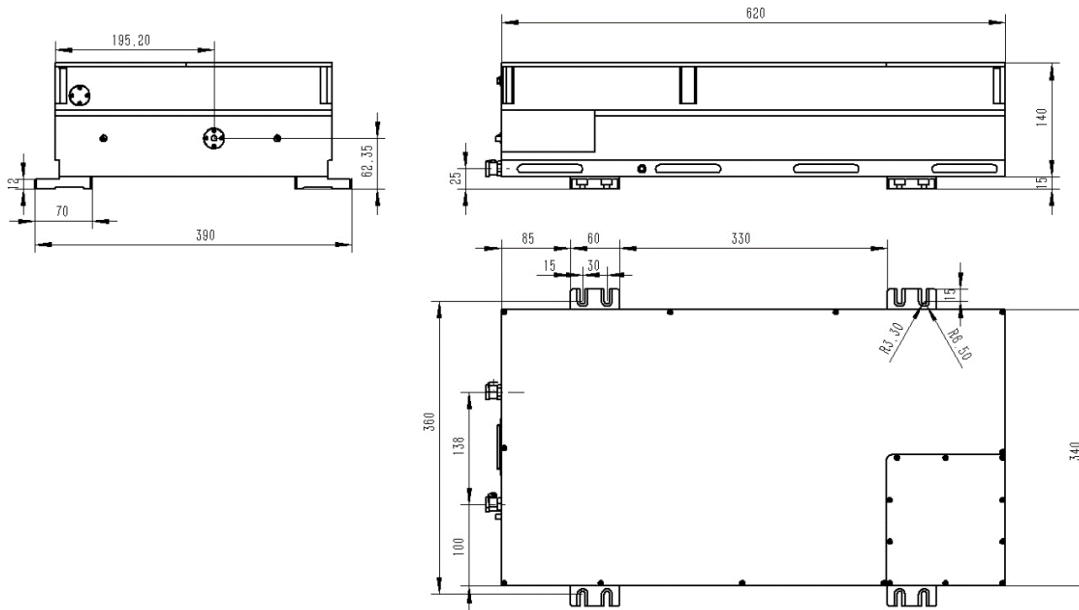
- ◆ Material micromachining
- ◆ Glass cutting and drilling
- ◆ Wafer dicing
- ◆ Sapphire cutting and drilling
- ◆ Thin film cutting
- ◆ Scientific research



Specifications:

Model:	P302
Wavelength (nm):	1064
Pulse Repetition Rate (kHz):	50 – 500
Pulse Width (ps) :	<15
Average Power (W):	>10 @500kHz
Average Power Stability:	<3% 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 ±0.2
Beam Roundness:	>90%
Pointing stability (μrad):	<50
Polarization Direction:	Vertical
Polarization Ratio:	100:1
Cooling:	Water-cooling
Relative Humidity:	10%-80% (non-condensing)
Ambient Temperature (°C):	15 – 30
Storage Temperature (°C):	-10 – 50
Warm-up Time (mins):	<10
Operating Voltage (V):	90 – 260

P302 Laser Head External Dimensions:



P302 Controller External Dimensions:

