

## 20W Industrial High Power Femtosecond Laser



The 20W Femtosecond laser developed by Tianjin BWT Laser Ltd. is based on all fiber configuration (fiber oscillator + fiber amplifiers), which enables the stability of the product. The entire laser is built inside a sealed cavity which effectively prevent micro-dust from getting inside the laser cavity. There are multiple photo-detectors built inside the laser to monitor the system performance and to fine-adjust parameters to ensure the optimum performance. All lasers are built inside class-10k cleanroom environment and we strictly follow advanced production process protocols. This Femtosecond laser is suitable for OLED processing, Glass and Ceramic cutting and drilling, and metal parts precision machining.

#### **KEY HIGHLIGHTS**

Average power: 20W

Maximum Pulse Energy: 50µJ@400kHz

Pulse Energy Stability: < 3% rms

Beam Quality: M2 < 1.40, circularity > 85%

Rep Rate: 100kHz - 1MHz adjustable

Burst mode, can adjust individual pulse intensity

External Control: RS232, GATE, TRIG

Pulse on Demand function ready

#### **APPLICATIONS**

OLED display cutting and drilling

Glass, Ceramic etc cutting and drilling

Semiconductor cutting

Fuel Injector drilling

Thin Film Cutting

Micro / nano Processing

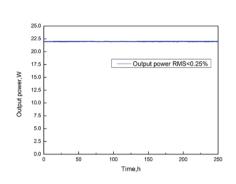
**Precision Laser Marking** 

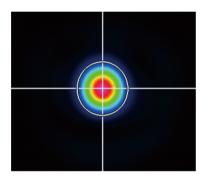
Other Precision Machining

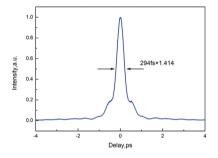


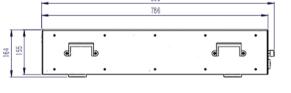
# 20W Industrial High Power Femtosecond Laser

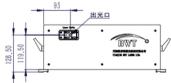
Parameters	Specifications
Wavelength	1030nm
Rep Rate	100kHz – 1MHz
Pulse Width	< 500 fs
Average Power	20 W
Max. Pulse Energy	50 μJ
Power Stability	< 2%rms over 8 hours
Pulse Energy Stability	< 3% rms
Beam Quality	TEM00 (M2 <1.4)
Beam Divergence	< 2 mrad (full angle)
1/e2 Bema Diameter	3.0± 0.25 mm
Beam Circularity	> 85%
Pointing Stability	< 50urad / ℃
Polarization	Horizontal
PER	>100:1
External Control	RS232, GATE, TRIG
Cooling	Water cooling
Ambient Temp	15 − 30 °C
Storage Temp	-10 − 50°C
Humidity	10%-80% ( non-condensing )
Warm-up Time	<20 min
Voltage	90 – 260 V AC

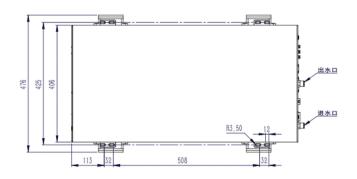












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