

Fiber-Coupled QOMO Series Laser



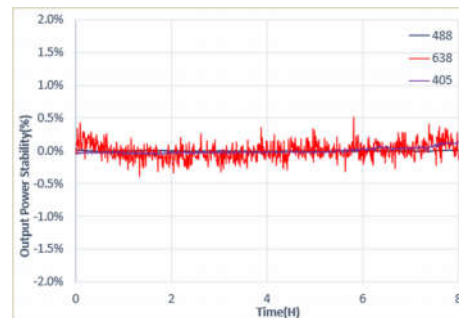
Fiber coupled QOMO series lasers are OEM type of laser sources with integrated driver and control delivering excellent and stable optical performance, low noise and user friendly control. It is best for fluorescence based applications such as flow cytometry, confocal microscopy and other scientific analysis instruments.

KEY FEATURES:

- Superior power stability
- Perfect Beam Quality
- Low Noise
- High Reliability
- Integrated Control Electronics
- Compact Size

APPLICATIONS:

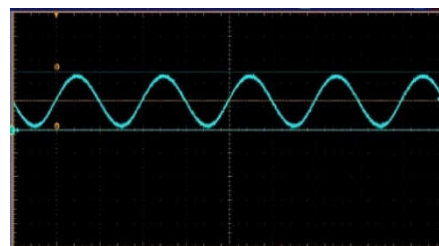
- Flow cytometry
- DNA Sequencing
- Medical Imaging
- Confocal Microscopy
- Laser-induced Fluoresce



Excellent power stability for long time



Digital Modulation at 10 MHz for square signal input



Analog Modulation at 500 KHz for Sine signal input



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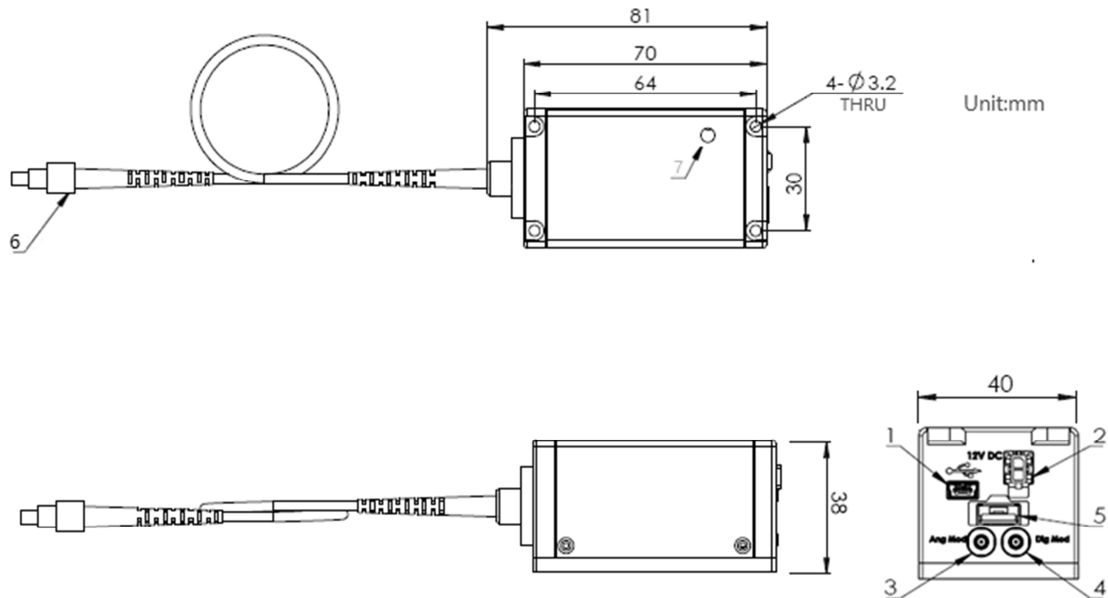
www.ii-vi-suwtech.com

Specifications

Wavelength	Central Wavelength	405±5nm	488±5nm	638±5nm
Output Power	Output power form fiber (mW)	30,60	30,60	30,60,120
	2hr Stability(2hrs,ΔT:±3℃)	1%	1%	1%
	8hr Stability(8hrs,ΔT:±3℃)	2%	2%	2%
Noise	RMS(20Hz-10MHz)	0.3%	0.3%	0.3%
	Pk-Pk(20Hz-10MHz)	1%	1%	1%
Polarization	Ratio	100:1	100:1	100:1
	Direction	Vertical ±5°	Vertical ±5°	Vertical ±5°
Fiber Parameters	Fiber Type	Single Mode Polarization Maintaining Fiber		
	Mode Field Diameter(Gaussian, typical)	3.3μm	4μm	4.5μm
	Spatial Mode	TEM ₀₀	TEM ₀₀	TEM ₀₀
	M ² (Beam Quality)	<1.1	<1.1	<1.1
	Fiber Jacket	3.0mm PVC		
	Connector Type	FC/APC, 8° angled, Narrow Key		
	Fiber Short-Term Bend Radius	25 mm	25 mm	25 mm
	Fiber Long-Term Bend Radius	60 mm	60 mm	60 mm
Laser Operation Mode		CW, Analog and Digital Modulation and PC Control		
Digital Modulation	Bandwidth (MHz)	10	10	10
	Rise Time(10% to 90%)(nsec)	<5	<5	<5
	Fall Time(10% to 90%)(nsec)	<5	<5	<5
	Modulation Depth	>250:1	>250:1	>250:1
Analog Modulation	Bandwidth (KHz)	500	500	500
	Rise Time(10% to 90%)(nsec)	<200	<200	<200
	Fall Time(10% to 90%)(nsec)	<200	<200	<200
	Modulation Depth	>1000000:1	>1000000:1	>1000000:1
Consumption	Operating Voltage(VDC)	12 V standard, Other Voltage Available Per Request		
	Power Consumption	Typical 5 Watts, Max. 13Watts		
Dimensions	Laser(L×W×H, Excluding Fiber Pigtail)	70mm×40mm×38mm		
	Fiber Cable Length(mm)	800mm and Other Length Per Request		
Operating Conditions	Operating Condition	10℃~40℃		
	Non-operation Condition	-20℃~60℃		
	Relative Humidity	<90% Non-condensing		
	Warm-up time	<5min		

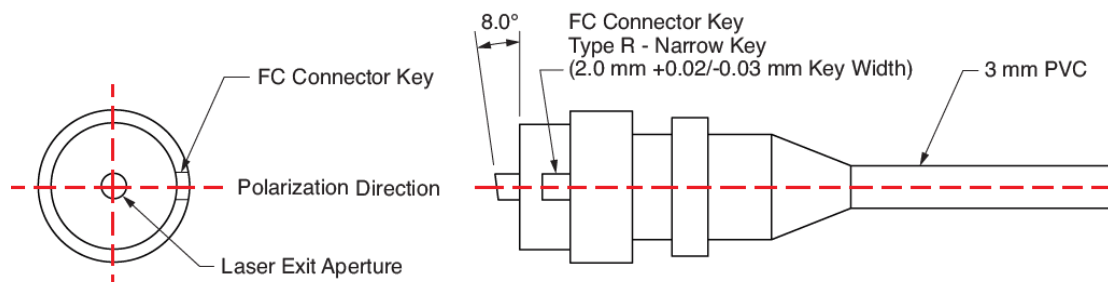
Note: All specifications above are at rated output power

Mechanical Drawing:



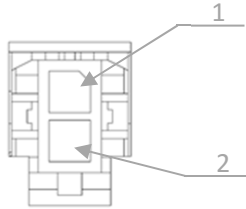
Item	Name	Functions
1	Mini-USB Conn	Mini-USB B Type, Communication
2	Power Conn	12 VDC, power supply
3	Ana Mod	SMB, analog signal input
4	Dig Mod	SMB, digital signal input
5	Control I/O	8-pin I/O Connector, laser status, slow digital modulation
6	Fiber Connector	FC/APC 3.0PVC
7	Status Indicator	LED indicator, indicates laser status

Polarization Direction Definition



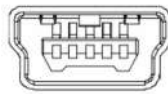
Electrical Interface Definition:

1. Power conn refers to Molex 43025-0200.

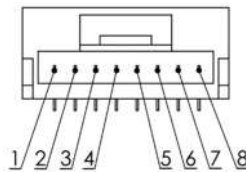


PIN	Signal Name
1	+12 VDC Power
2	0 VDC Power

2. Mini-USB Conn: Molex USB 2.0 Mini Socket



3. Control I/O: BM08B-NSHSS-TBT connector from JST



Pin#	PN	Type	Direction	Description
1	Error Signal	LVTTTL	Out	Indicate Laser error status - <0.5V: laser OK - >2.5V: laser error - Output impedance is <200 Ohm;
2	Enable*	LVTTTL	In	- Low DISABLE/High ENABLE; Default DISABLE
3	Interlock*	LVTTTL	In	- Low ON/High OFF; Default OFF
4	Power Monitor	Analog	Out	0 to 2V represents 0 to 100% of the Laser output power
5	Power Adjustment	Analog	In	0-5V range which to 0~100% nominated power level
6	Mode Switch	Analog	In	- High/APC Mode - Low/ACC Mode
7		GND		GND
8		GND		GND

* High:>2V;Low<0.8V