

# Lapis<sup>®</sup>

## Integrated Multi Fiber-Delivered Module

This fiber delivered laser module is integrated with 4 lasers of different wavelengths (405nm, 488nm, 561nm and 638nm), and with their drive and control electronics in one package.

In CW operation, each individual laser has max 30mW optical output power, which can be turned on or turned off or adjusted by external voltages applied to the module.

The optical outputs are collimated to be “true” Gaussian beams with averaged 1.2mm beam waist diameters. The four wavelengths are coupled into one fiber with collimator.

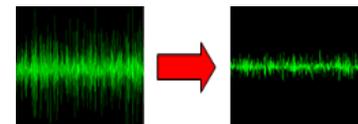
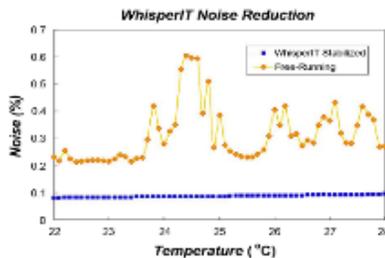
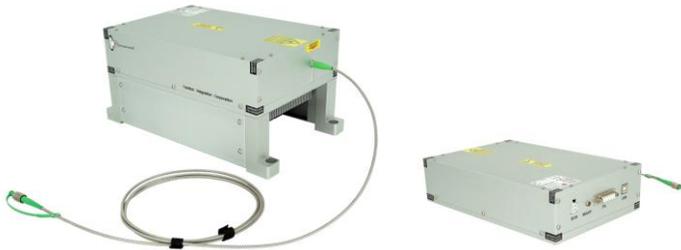
Each laser output is featured with PIC patented Whisper IT<sup>®</sup> technology, which enables super optical performances for low noise, low coherence and insensitive to back-reflection.

### FEATURES

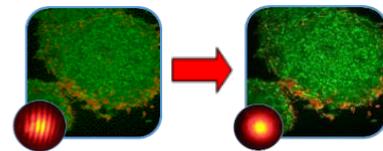
- **Highly integrated**
- **User-adjustable**
- **Minimizes setup time**
- **Minimizes time/cost to market**
- **Custom wavelengths**

### APPLICATIONS

- **Flow Cytometry**
- **Lightsheet Imaging**
- **SIM Microscope**
- **Confocal Microscope**



Low Noise



Low Coherence

## Product Specifications

PARAMETER	Conditions	Min.	Specifications Typ.	Max.	UNITS
Max Optical Output Power (from Fiber)*	405 laser	30	32	35	mW
	488 laser	30	32	35	mW
	561 laser	30	32	35	mW
	638 laser	30	32	35	mW
Center Wavelength(@ Max Power)**	405 laser	400	405	410	nm
	488 laser	483	488	493	nm
	561 laser	556	561	566	nm
	638 laser	633	638	643	nm
Power Stability	8Hrs, ΔT<5°C@RT, 5 min warm up			±2	%
RMS Noise	10Hz - 2MHz			0.5	%
Beam Diameter(1/e <sup>2</sup> )***	@50mm away from laser exit	0.9	1.2	1.5	mm
	@350mm away from laser exit	0.9	1.2	1.5	mm
Polarization Extinction Ratio	@Max Power	17			dB
Beam Quality (M <sup>2</sup> )	TEM <sub>00</sub>			1.2	
Fiber Jacket			3		mm
Output Concentricity				±5	mrad
Output Eccentricity	@10mm away from laser exit			±0.5	mm

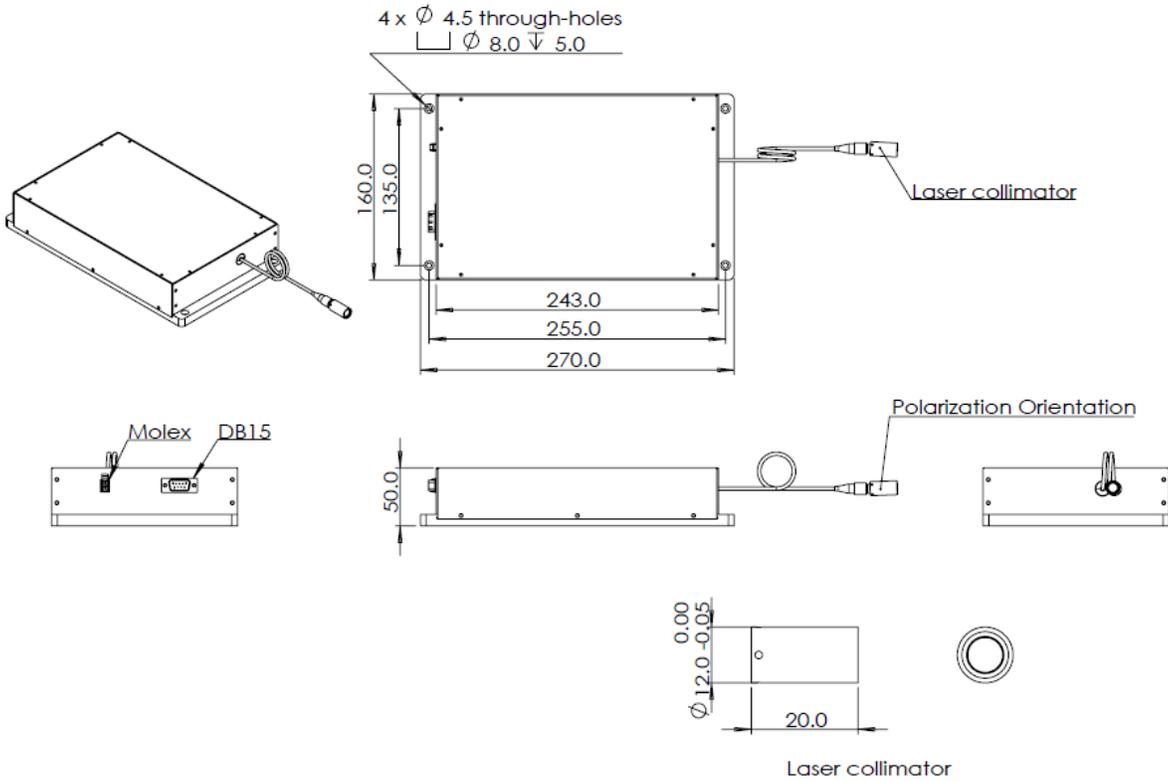
\*Output power is up to 100mW (405nm 50mW).

\*\*Other wavelengths are available to offer upon request.

\*\*\*FC/APC connector or other beam diameters are available upon request (1.2±0.3/1.8±0.2/2±0.2/2.75±0.25/3.7±0.4mm)

PARAMETER	Conditions	Min.	Specifications Typ.	Max.	UNITS
Input Voltage	VCC	11.8	12	12.2	VDC
Current Consumption	VCC			8	A
Heat Dissipation				100	W

## Mechanical Specifications



This OEM laser does not comply with 21 CFR 1040.10 and 1040.11 without appropriate integration. Please contact Pavilion Integration Corp. for additional support or questions.

**ISO9001 & ISO13485 Registered**

