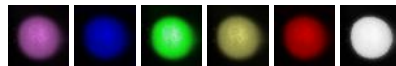


SIXTUS

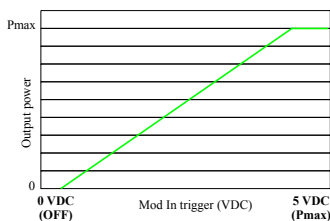
6-channel optical engine

The PEGASUS SIXTUS is the most compact optical engine with up to 6 different wavelengths channels. All channel outputs are combined and coupled into one multimode fiber (singlemode on request) to have a most versatile system for any kind of biotechnical and life science illumination applications.

Depending on specimen, the customer can choose combination of wavelengths in order to achieve maximum excitation efficiency for a large variety of fluorescence molecules with only one device.

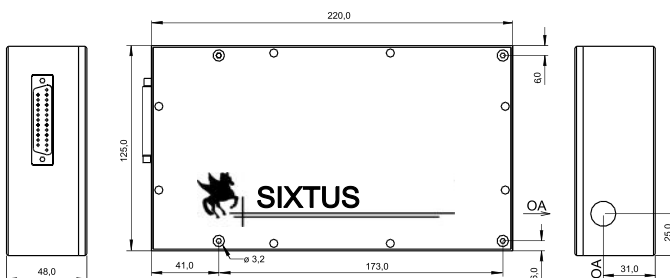


Power control for each channel via 0 - 5 V



With optional adapted electronic benchtop driver, the intensity of each color channel can be controlled simultaneously, independently via analogue 0 - 5 VDC trigger signal.

It allows high speed modulation and fast switching between individual laser wavelengths.



**405, 450, 520,
638, 660, 810 nm**

Features

- Up to 6 different wavelengths in the VIS/NIR range
- High power version with up to 3 wavelengths
- Analog modulation > 200 kHz / channel
- Very compact housing

Specifications

Available wavelengths	405 nm 450 nm 520 nm 638 nm 660 nm 785 nm 810 nm (others on request)
Power stability	< +/- 2 % (over 1 h)
MM fiber coupling	50, 100, 200, 400, 800 μm (SM fiber on request)
Analog modulation	DC - 200 kHz
Laser head dimension	220 x 125 x 48 mm ³
Weigh laser head	510 g
Laser class (EN 60825-1)	4

Available wavelengths *	nm	405	450	520	638	660	785	810
Maximum optical power	mW	400	1200	700	500	500	150	1000
Type		Diode	Diode	Diode	Diode	Diode	Diode	Diode
Beam shape		Multimode	Multimode	Multimode	Multimode	Multimode	Multimode	Multimode
Beam diameter (1/e²) **	mm	< 3.5 x 4.5	< 3.5 x 4.5	< 3.5 x 4.5	< 3.5 x 4.5	< 3.5 x 4.5	< 3.5 x 4.5	< 3.5 x 4.5
Divergency (full angle) **	mrad	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Fiber coupling		Multimode 50μm, 100μm, 200μm, 400μm, 800μm / NA 0.22 / SMA fiber connector						
Stability (over 1 h)	%	< +/- 3						
Operation current	A	< 15						
Modulation ***	kHz	> 200 (-3dB)						
Housing dimension	mm³	220 x 125 x 48						
Cooling		must be attached to external heatsink						
Laserclass		4						

* Center wavelength

** Freespace version

*** depending on driver (not included)

SIXTUS 6-channel optical engine

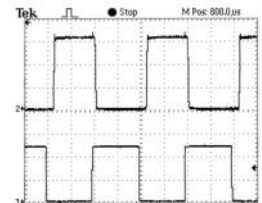
Option: 6-channel benchtop driver

The adapted benchtop driver model **PL.LD230/6C/2T** with 6 LD power supplies and TEC controller provides a “turn key” solution for operation of the SIXTUS laser module.



Amplitude modulation DC - 200 kHz

Via potentiometer, the intensity of each channel can be controlled between 0 and I_{max}. External trigger signal allows independent modulation of each channel DC - 200 kHz.



Option: Fiber collimator



Fixed SMA fiber collimators are available with output diameters on customers requirement.

For variable projection distances, focus adjustable collimators are provided.

Option: Cooling modules



The laser base plate must be conductively cooled via air- or water cooler.

Adapted PEGASUS air cooling aggregates are available with fan

diameter 30 mm or 60 mm, depending on operation environment.

Models can be chosen from combinations of 10 different wavelengths and different power levels.

	Channel wavelengths (nm) / power (mW)						Remark
	1	2	3	4	5	6	
PL.SI.BGRI-01	405 / 300	450 / 500	520 / 500	638 / 300	660 / 300	808 / 500	6 different channels
PL.SI.BGRI-02	405 / 300	462 / 500	520 / 500	638 / 300	638 / 300	808 / 1000	doubled red
PL.SI.BGR-01	450 / 500	450 / 500	520 / 500	520 / 500	638 / 500	638 / 500	3 different colors; doubled blue, green and red

Note: Only popular combinations are shown.