



## Multi-Wavelength Diode Laser Modules

### PRODUCT FEATURES

- ▲ Interface for multiple outputs
- ▲ USB controlled, instrumentation ready
- ▲ Touchscreen display operation
- ▲ High stability & low noise
- ▲ Excellent power & wavelength stability
- ▲ TTL modulation up 1 MHz (internal) / 20 MHz (external)

### APPLICATIONS

- ▲ Targeting & alignment
- ▲ Automation & machine vision
- ▲ Analytical & Bio-instrumentation
- ▲ Flow cytometry
- ▲ Particle detection / counting
- ▲ Metrology & Instrumentation

**Hazard Note:** This laser module emits radiation that is harmful to the human eye. Depending on wavelength the radiation may be visible or invisible. When in use, do not look directly into the laser emitting aperture. Looking directly at laser emission at close range may cause eye damage.



**Electrical Precaution:** The case is internally connected to the circuit; damaging the anodized surface may result in failure of the laser module.

**Warranty:** One year. No warranty coverage for disassembly, modifications or damage due to abuse or misapplication.

The multi-wavelengths laser modules contain two or three individually controllable lasers integrated in a single compact housing. The laser modules can be computer-controlled via USB connection or manually using the built-in touchscreen display.

These laser modules allow the user to set laser power and temperature and to modulate the laser with its built-in internal function generator up to 1 Mhz. External modulation is up to 20 Mhz.

The MWL and RGB series demonstrate excellent beam quality, power stability, laser temperature control and low noise for demanding applications. TOPAG also provides customized solutions to fit your requirements.

### SPECIFICATIONS

Model	RGB	MWL
Output power	40 mW	up to 100 mW
Wavelength *	450, 520 & 635 nm	405 - 780 nm
Laser exit **	FC connector (50 micron fiber)	
Power stability	< 0.5%	
Noise	< 0.5 % RMS	
Pointing stability	< 10 µrad	
Polarization ratio	> 100:1	
Modulation	internal up to 1 MHz, external up to 20 MHz	
Dimensions (W x H x L)	40 x 46.8 x 100 mm	

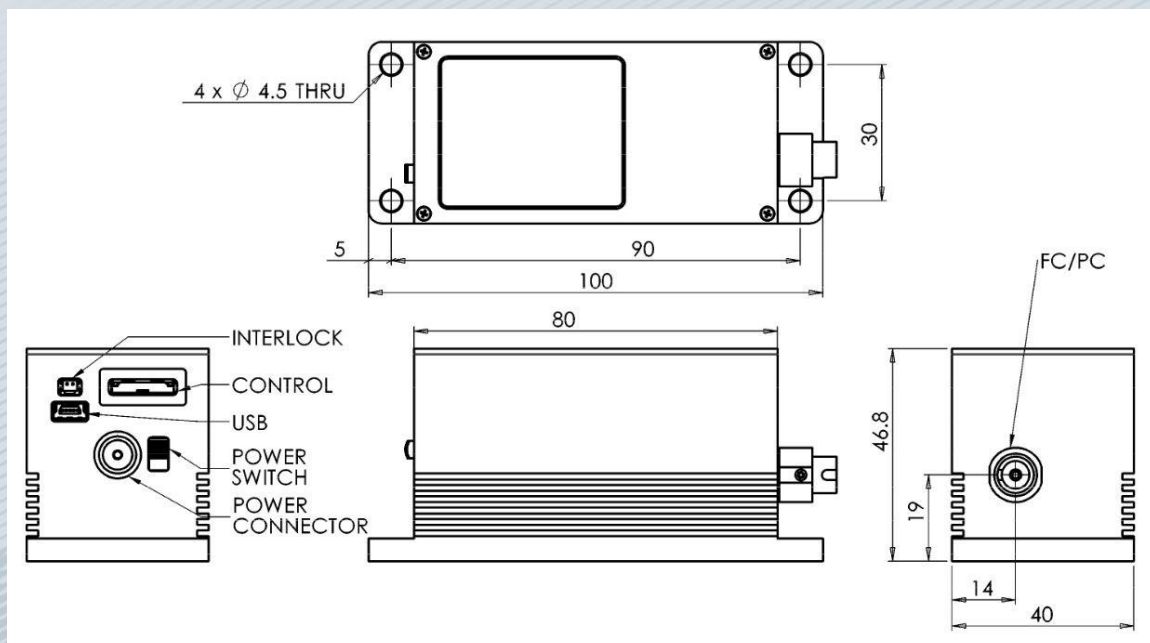
\* RGB has three predefined wavelengths. MWL can be equipped with two or three different wavelengths of your choice.

\*\* Other connector types are available

## AVAILABLE WAVELENGTHS AND OUTPUT POWER

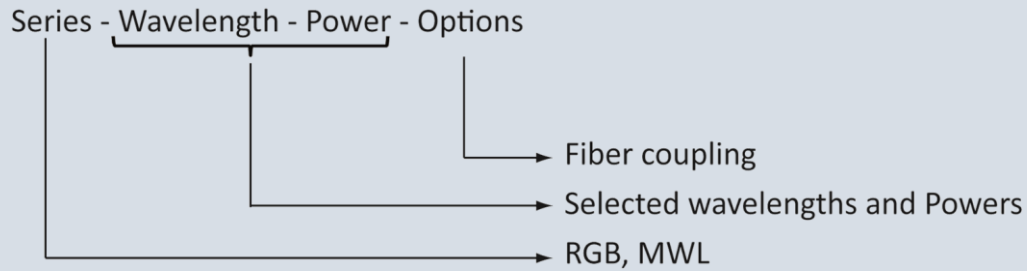
Wavelength (nm)	Power (mW)
405	up to 100
473	up to 50
488	up to 50
515	up to 30
520	up to 60
525	up to 50
633	up to 70
635	up to 70
637	up to 50
638	up to 50
642	up to 50
660	up to 100
670	up to 10
685	up to 40
705	up to 30
730	up to 30
780	up to 50

## DIMENSIONS



## ORDERING INFORMATION

Please use the following code for ordering:



E.g. MWL-(638-20-520-30-473-40): Computer-controlled multi-wavelength laser with 20 mW@ 638 nm, 30 mW @ 520 nm, 40 mW @ 473 nm and FC connector.

Please add the desired customization options to your request.

## CUSTOMIZATION OPTIONS

- ▲ Custom electronic drivers with firmware and software
- ▲ Mechanical design
- ▲ Fiber-coupled versions (multimode, single mode and polarization-preserving)
- ▲ TTL modulation
- ▲ Other wavelengths
- ▲ Cable length
- ▲ Connector
- ▲ Supply voltage
- ▲ Working distance
- ▲ Projection Patterns (DOE)