



L1-MC-Vxxx-SM series (Visible Laser Module)

Continuous wave Visible range Lasers



Applications

- ▶ Laser shows and outdoor advertising
- ▶ Laser illumination of objects
- ▶ Pumping of Ti:Sapphire and other lasers
- ▶ Holography
- ▶ Security systems
- ▶ Spectroscopy
- ▶ DNA sequencing and cytometry
- ▶ Scientific research
- ▶ Medical and cosmetic equipment
- ▶ Microelectronics, lithography



The VLM series devices are high-efficiency continuous-wave single-mode fiber lasers serially manufactured by our company. Their operating principle is based on stimulated Raman scattering followed by efficient nonlinear conversion of radiation in a nonlinear optical crystal.

The sources generate powerful single-mode continuous-wave linearly polarized radiation in the visible and ultraviolet spectral ranges and effectively solve tasks related to pumping DYE, Ti:Sapphire, and other types of lasers, as well as applications in the fields of holography, microelectronics, medicine, scientific research, laser projections and object illumination.

VLM series laser devices surpass market analogues in functionality, emit higher optical power of continuous radiation (up to 20 W depending on the wavelength), efficiency, and excellent beam quality. They are capable of emitting at any wavelength in the visible spectral range of 266-775 nm (selection of a fixed wavelength is possible in steps of 0.1 nm!), and also have a narrow linewidth (less than 0.1 nm; a number of wavelengths are available in a single-frequency configuration, VLM-SF). Unlike foreign analogues, VLM lasers do not require liquid cooling and are capable of operating over a wider temperature range.

Possible control interfaces: Ethernet, RS-232. The product line includes more than a dozen standard wavelengths. The optical design of the device allows manufacturing a source with any wavelength from the range of 266 - 775 nm upon request.

L1-MC-Vxxx-SM Series – Second Harmonic: Green, Yellow, Red

Optical Characteristics	532, 536-8	561-10	589-15	623-20	658-10	708-5	775-5
Optical Characteristics	Continuous Wave (CW)						
Operation mode		10	15	20	10	5	5
Maximum output power, W	532, 536	561	589	623	658	708	775
Beam quality, M²	≤ 1,2						
Polarization	Linear (1:100), horizontal						
Output power stability, %	± 1						
Spectral line width, nm	< 0,1						
Beam diameter, mm	1 ; 2						
General Characteristics							
Module dimensions (H× W × D), mm	43.5 × 217 × 325						
Optical head dimensions (H× W × D), mm	46 × 50 × 187						
Module weight, kg	5						
Operating temperature range, °C	+15..+35	+10..+40				+15..+35	
DC supply voltage, V	24						
Power Consumption, W	200-400						

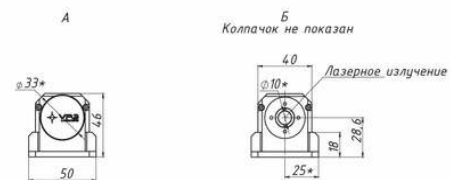
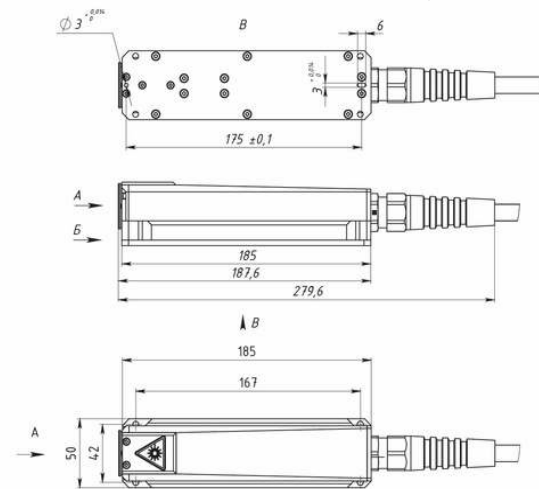
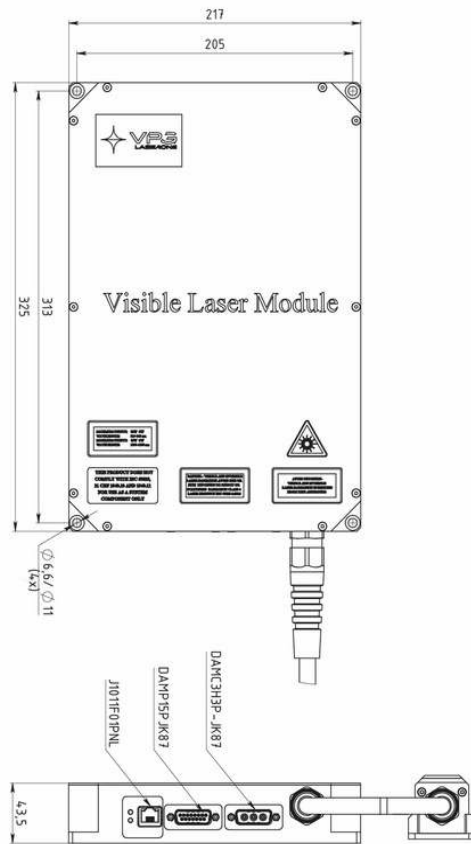
L1-MC-Vxxx-SM Series Third Harmonic: Violet, Blue

	New!					
Optical Characteristics	355-357-0.2	374-0.5	392-0.5	415-0.5	438-0.5	472-1
Operation mode	Continuous Wave (CW)					
Maximum output power; W	0,2	0,5	0,5	0,5	0,5	1
Wavelength, nm	354,6; 357,3	374	392	415	438	472
Beam quality, M²	≤ 1,2					
Polarization	Linear (1:100), horizontal					
Output power stability, %	± 2					
Spectral line width, nm	< 0,1					
Beam diameter, mm	1 ; 2					
General Characteristics						
Module dimensions (H× W × D), mm	43.5 × 217 × 325					
Optical head dimensions (H× W × D), mm	59 × 70 × 250					
Module weight, kg	5,5					
Operating temperature range, °C	+15..+35	+10..+40				+15..+35
DC supply voltage, V	24					
Power Consumption, W	200-400					

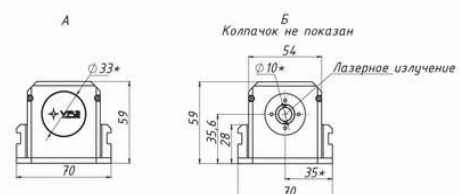
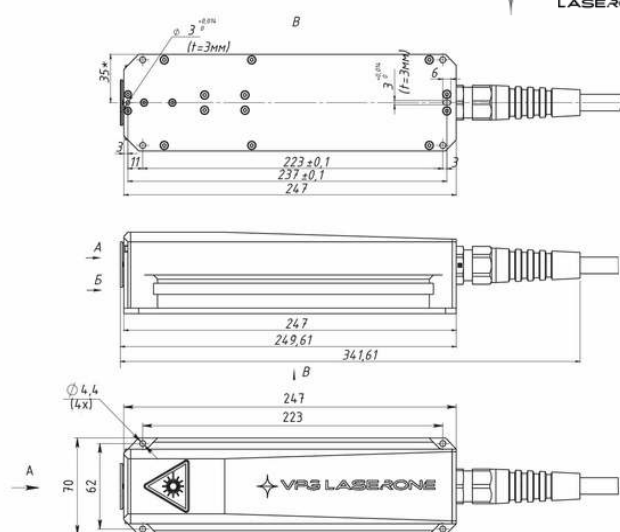
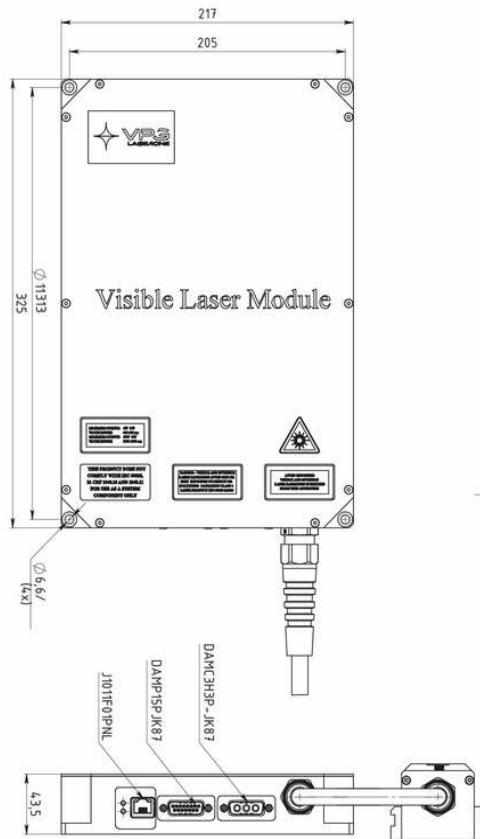
L1-MC-Vxxx-SM series Fourth Harmonic: Ultraviolet (UV)

Optical Characteristics	266	280	294	311	329
Operation mode	Continuous Wave (CW)				
Maximum output power, W	30	50	50	100	30
Wavelength, nm	266	280,5	294,5	311,5	329
Beam quality, M²	≤ 1,2				
Polarization	Linear (1:100), horizontal				
Output power stability, %	± 2				
Spectral line width, nm	< 0,1				
Beam diameter, mm	0,5 - 1				
General Characteristics					
Module dimensions (H× W × D), mm	43.5 × 217 × 325				
Optical head dimensions (H× W × D), mm	59 × 70 × 250				
Module weight, kg	5,5				
Operating temperature range, °C	+15..+35	+10..+40			
DC supply voltage, V	24				
Power Consumption, W	450				

Dimensional drawings (for the second harmonic)



Dimensional drawings (for the third and fourth harmonics)





GLOBAL LEADER IN THE LASER INDUSTRY

VPG LaserONE is a Russian company founded by the outstanding Soviet scientist Valentin Pavlovich Gapontsev, founder of the international science and technology corporation.

VPG LaserONE develops and serially produces high-efficiency fibre lasers and amplifiers, optical components, assemblies, modules, instruments, subsystems and systems for:

- Industrial laser cutting, welding, cladding, alloying, heat treatment, marking and cleaning systems.
- Scientific research.
- Fibre-optic, atmospheric and satellite optical communications, cable television.
- Surgery and biomedicine.
- Optical ranging and remote monitoring of industrial facilities and the atmosphere.
- Measurement and control systems, sensors.

In order to introduce innovative laser technologies into production, VPG LaserONE has for many years worked closely with leading domestic machine-building, metallurgical, railway and motor transport enterprises and supplies its customers with more than 600 types of ultra-high-technology laser equipment. Many devices and systems have no equivalents on the world high-tech market. All key components of fibre laser technology are manufactured in-house, which delivers:

- Fast product development.
- Efficient production methods.
- The industry's best product delivery times.
- More advanced and higher-quality solutions.
- The highest wall-plug efficiency, which reduces overall energy consumption and costs.



LASERNEXT

+91 8939521000

WWW.LASERNEXT.IN

SATISH.A@LASERNEXT.IN

KAPITALEASE SOLUTIONS, NEXUS 3.0
SITE 31/26, BOMMASANDRA INDUSTRIAL AREA,
4TH PHASE, JIGANI, BENGALURU, KA 560105, INDIA



1992

Foundation date



1,500+

employees



500+

R&D
specialists



>60 000 m²

facilities



100+

patents



90%

component
localization