UV-LASE SERIES

The UV laser source exploits the extensive experience and success of the DPSS family and is based on the mechanic optical architecture of Third Harmonic Generation (THG). The extracavity technology allows high efficiency conversion of the LBO nonlinear crystal and compactness of the laser source.

V-LASE PLATFORM

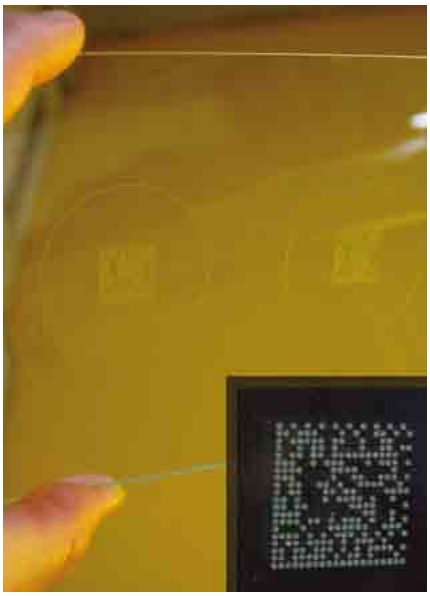
- The V-Lase platform derives from the long experience in the production of high performance and high quality DPSS laser sources. The UV-Lase sources and markers @355nm use the state-of-theart End Pumped Coupling Technology, which represents the leading-edge solution in the field of laser sources.
- The platform is characterized by a standard compact case, continuous and precise power control and low power consumption. Moreover, special attention has been dedicated to the safety aspects. The proprietary end-pumped architecture using a TE cooled diode laser pump with unmatched MTBF, assures the reliability and availability of the system.
- The V-Lase platform offers lasers with excellent beam quality, high peak power and short pulse width. The operator is able to precisely tune the power and pulse repetition rate. Very high brilliance in the laser spot, at longer focal lengths, makes the V-Lase platform ideal for marking a broad range of materials, even with large marking fields.
- Designed for very demanding 24/7 processes, the V-Lase platform offers unparalleled performance and represents the ideal solution for both direct part marking and label marking in every market segment including automotive, solar & electronics, packaging, as well as in medical surgical tools marking and other applications.
- The V-Lase platform significantly extends the possibility of connection between the laser source and the operating system. The communication with the system is enabled by RS232. In addition, the V-Lase platform also has an I/O for the connection of the TTL and analogue signals. Ethernet connection is available for monitoring.

FEATURES & BENEFITS

- Extended Lifetime
- Extremely compact
- Easy maintenance
- Motorized Crystal Shifter
- Fast FPK
- High reliability
- Excellent Beam Quality for superior marking & processing application
- Air-cooled industrial design
- Advanced diagnostic & easy connection
- Based on state-of the art Vlase Platform

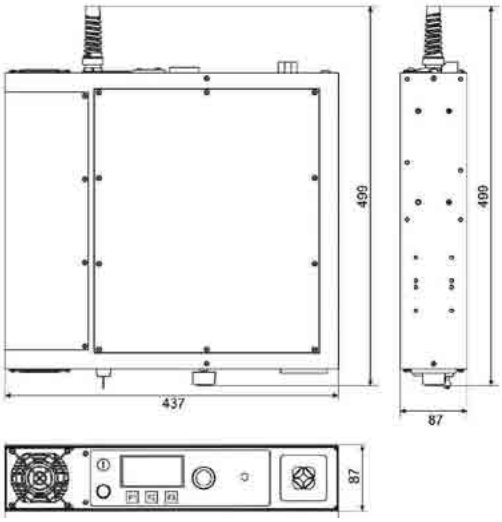
APPLICATIONS

The UV-Lase wavelength produces less mechanical distortion and less heat affected zones (HAZ) in comparison with longer laser radiations. The high performances of this laser source make it ideal for the verydemanding marking and material process applications, such as glass and non-doped plastics in automotive, healthcare, aeronautic, solar & electronics among the other.

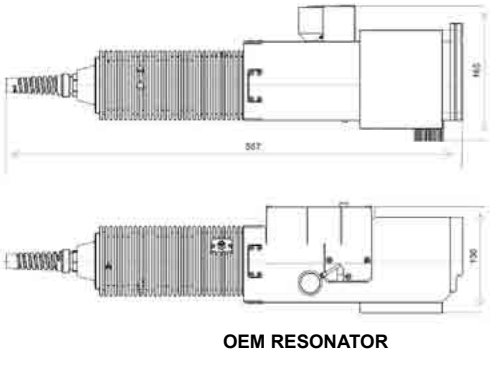


UV-LASE

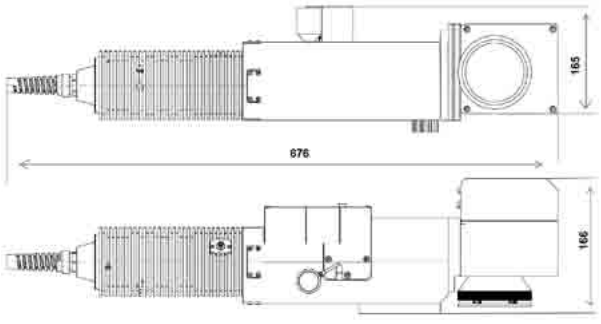
Wavelength	355nm
Average Output Power * (typical)	3W ± 5%@30kHz
Repetition Rate Range	20 -80 kHz
Pulse Width	8ns @30kHz
Max Pulse Energy * (typical)	100uJ
Aiming Beam	Class 2M Red Laser Diode; λ=635nm +/-5nm; 3mW
Temperature Range	Operative 10°C to 35°C Storing 0° to 50 °C
Cooling System	Air cooled
Power Supply	DC 24V:28V
Laser Power Consumption	typical 450 W maximum 600 W
Connectivity	I/O signal; RS 232 & Ethernet for monitoring
Optical Fiber Length	3m D80 connector
Resonator Dimension & Weight	SOURCE mm 130 x 165 x 557 kg 8,5 MARKER mm 165 x 166 x 675 kg 10,7 (included scanning head)
Rack Dimension & Weight	mm 499 x 437 x 87 kg 12
EEC Rules compliance	2004/108/EEC: “Electromagnetic Compatibility” 2006/95/EEC: “Low Voltage”
EU Standard compliance	EN 61000-6-4, EN 61000-6-2, EN60204-1, EN60825-1
Standard Marking version supplied	BEX 10X , MiniScan8_ 355nm with F-Theta 103L (telecentric) working distance mm 139 - working area mm 50x50



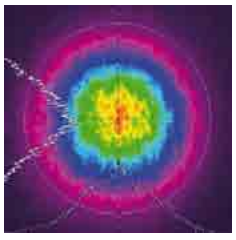
CONTROL UNIT (RACK)

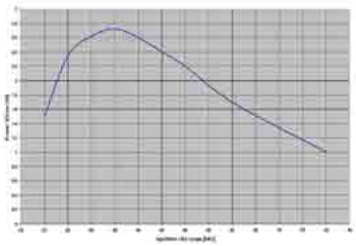


OEM RESONATOR



MARKER RESONATOR





AVERAGE POWER CURVE

MARKING KIT

The marking kit allows system integrators to easily interact with the laser marking system. The kit consists of two components: a PCI electronic board (iMarkPCI) that provides control signals to the laser and a powerful software (Lighter) that provides a graphical user interface to create marking layouts and automate the laser marking process through integration with legacy systems. The Lighter graphical editor creates and edits text strings, shapes, barcodes (e.g.128, EAN/UPC, 2/5, 3/9, GS1-128, RSS) and matrix codes (Datamatrix, QR codes,micro QR codes). It can also import logos in vectorial and raster formats.

Lighter marking kit guarantees key advances in marking software functions and applications such as marking on fly, array marking, grey tones marking, mechanical axis control, rotating axis control and others. Lighter is scriptable: this means that it can be easily integrated with legacy systems through a wide range of combinations of transmission media, protocols and architectures (master/slave, client/server, ...). Lighter is extensible: its scripting features can be extended through custom-developed plug-ins to deal with specific integration-related issues (custom components or protocols, patent protected algorithms, etc.).

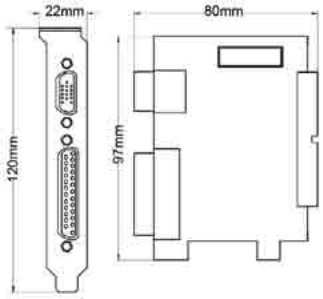
TECHNICAL SPECIFICATIONS IMARK MARKING KIT

User interface	Languages	English, Italian, German, Spanish, French, Polish, Japanese, Traditional Chinese, Simplified Chinese, Korean
PC compatibility	Supported OS	Windows 7 / Vista / XP
	Board slot	PCI Express (1x)
Galvo performance	Repeatability	< 10um short term positioning accuracy
	Precision	< 50um galvo positioning precision
	Long term drift	< 100um long term positioning drift
	Speed	Up to 10.000 mm/s
Character type	Font	Original single line, True Type, Open Type, Type1, Type42
	Languages	European, Asian, Arabic, Cyrillic and Hindi languages supported
	Text type	Fixed text, date and time, serial number, batch code, fully customizable code
Code type	Barcode	2to5, Code39, Code128, UPC, EAN (GS1 ready)
	Stacked	PDF417, Code16K, RSS Family
	Matrixcode	Datamatrix, QRcode, microQR
Logo image	Types	HPGL, PLT, DXF, DWG, BMP, JPG, TIF, GIF, PNG
Integration	Marking capabilities	Standing, Rotary axis, On the fly (marking in motion)
	Mechanical Axis	Up to 4 mechanical axis driving capabilities (stepper motor)
	I/O	Up to 16 digital inputs and 16 digital output fully programmable
	Encoder	Dual line high resolution encoder input (on the fly option)

UV-LASE ACCESSORIES

The following accessories are available to simplify installation and optimize product performances:

- Power Supply
- Support for fitting to standard19” rack
- Ethernet interface module for monitoring
- Lens adapters
- F-Thetas



iMark board

PCI Express board

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The company endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use, the company can guarantee only the data indicated in the instruction manual supplied with the products.

All laser sources described in this product guide are Class 4 laser sources. Laser interaction with organic or inorganic material can cause TOXIC FUMES/ PARTICLES. The OEM laser components described in this product guide is for sale solely to qualified manufacturers, who shall provide interlocks, indicators and other appropriate safety features in full compliance with applicable national and local regulations.