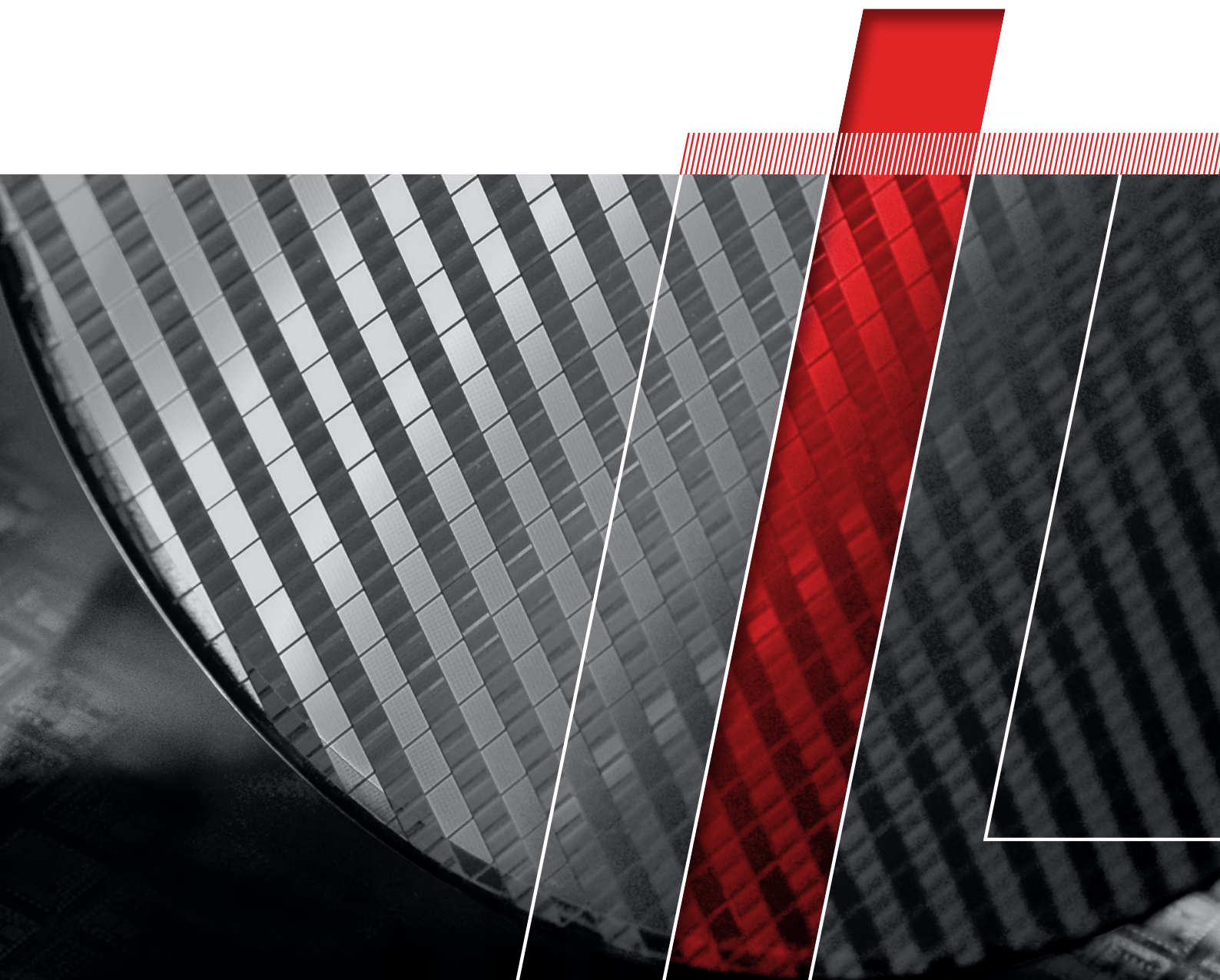


mosquito*
Mini DPSS Lasers



Think of **LASER** as a tool

mosquito* Mini DPSS Lasers



Versatility. Flexibility. Reliability.

The all new mosquito series of mini DPSS lasers is designed to deliver exceptional performance in a compact footprint. The innovative system architecture provides a nearly diffraction limited beam with short pulse widths and superior pulse-to-pulse stability even at high repetition rates. The compact, conduction

cooled laser head and the field proven InnoLas Laser Control (ILC) interface allows easiest integration and make this laser a rugged tool with exceptional performance and reliability. Our clean room production and the use of highest quality components ensures consistent quality and longest laser lifetimes.

Applications

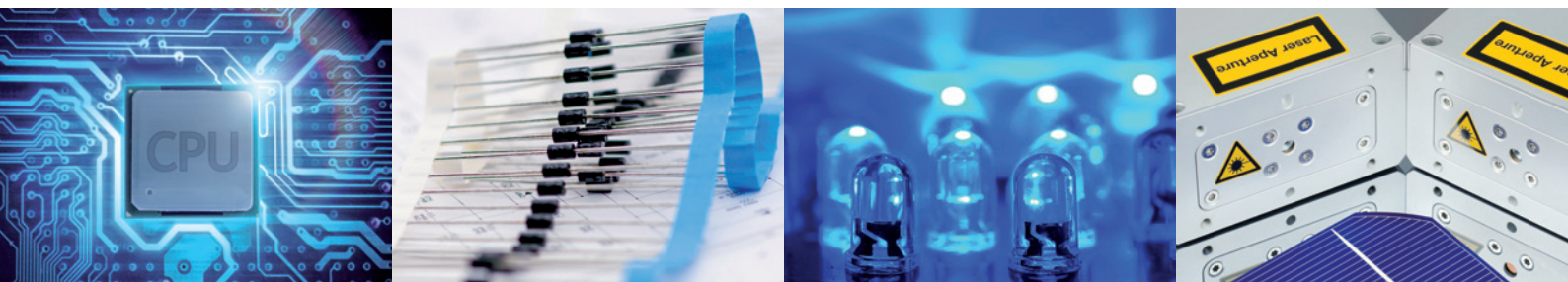
- * Photovoltaic Manufacturing
- * Semiconductor Manufacturing
- * Resistor Trimming
- * LED Chip and PCB Marking
- * Glass-Inside Marking

Features

- * Nd:YVO₄ and Nd:YAG versions
- * Rugged design for hands-off operation
- * Standard NANIO laser interface (ILC)
- * Short pulse widths of < 10 ns
- * Long life pump diodes



Pulse widths as short as 6 ns and pulse peak powers above 10 kW open new possibilities in laser material processing applications. Processes which previously required cost intensive high power lasers can now be accomplished with the compact and conduction cooled mosquito laser.



Applications Lab Services

Our in-house applications lab offers a wide variety of lasers, scanning and measurement equipment to find the ideal solution for your application tasks. Supported by our application experts, our open house policy allows for fast results and short lead times for your sample processing requests.

Customer Service

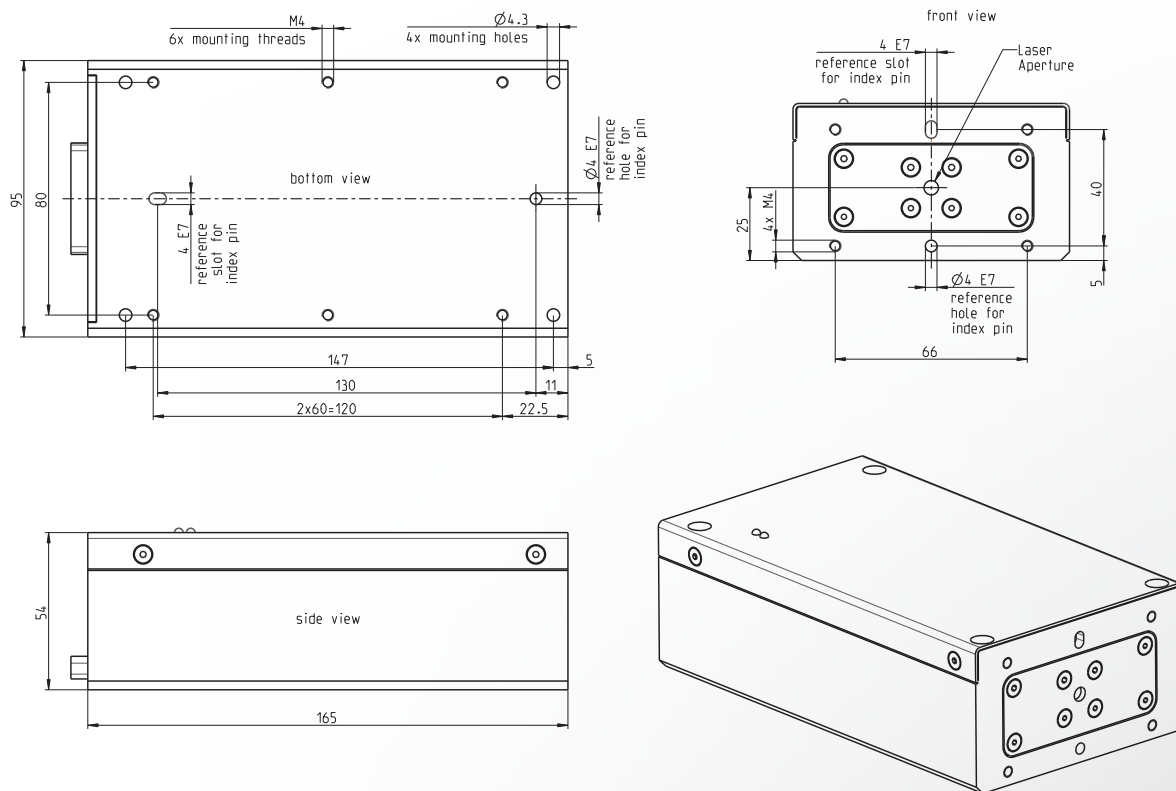
Being close to the customer is our strength. Customer requests, new challenges or service issues are handled directly in our engineering department. And we guarantee fastest response times as you expect it.

Specifications

Product Name	mosquito 1064-3-V	mosquito 532-2-V	mosquito 355-0.3-V
Laser Medium	Nd:YVO ₄	Nd:YVO ₄	Nd:YVO ₄
Wavelength	1064 nm	532 nm	355 nm
Nominal Power	3 W @ 100 kHz	2 W @ 50 kHz	0.3 W @ 50 kHz
Repetition Rate	single shot to 200 kHz	single shot to 200 kHz	single shot to 200 kHz
Polarization	vertical, 100:1	horizontal, 100:1	vertical, 100:1
Spatial Mode	TEM ₀₀ M ² < 1.2	TEM ₀₀ M ² < 1.3	TEM ₀₀ M ² < 1.4
Peak Power	> 3 kW @ 50 kHz	> 3 kW @ 50 kHz	> 0.46 kW @ 50 kHz
Pulse Energy	40 μJ @ 50 kHz	40 μJ @ 50 kHz	6 μJ @ 50 kHz
Pulse Width (FWHM)	< 13 ns @ 50 kHz	< 13 ns @ 50 kHz	< 13 ns @ 50 kHz
Pulse-to-Pulse Stability (rms)	< 2%	< 3%	< 4%
Nominal Beam Diameter at Waist	0.4 mm	0.4 mm	0.4 mm
Nominal Beam Divergence, Full Angle	4.0 mrad	2.1 mrad	1.5 mrad
Warm-up Time	< 10 min		
Electrical Connection	115-230 VAC ± 10%, 50-60 Hz, single phase (24 VDC on request)		
Maximum Power Consumption	< 150 W		
Ambient Temperature	15-35 °C (59-95 °F), non condensing		
Dimensions Laser Head	165 x 95 x 54 mm (6.50 x 3.74 x 2.13 in)		
Dimensions Power Supply	408 x 447 x 44 mm, (16.06 x 17.60 x 1.73 in) 1 RU high		
Available Options	Air cooled heat sink or water cooled heat sink with chiller. Umbilical length between laser head and power supply 1-10 m. Standard is 3 m. External beam expander box, beam expanders and scan head adapter flanges.		

InnoLas follows a policy of continuous product improvement. All specifications are subject to change without notice. InnoLas Laser GmbH is DIN EN ISO 9001 certified.

Technical Drawing



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