

MONOLITH Series

Beam sources and marking lasers

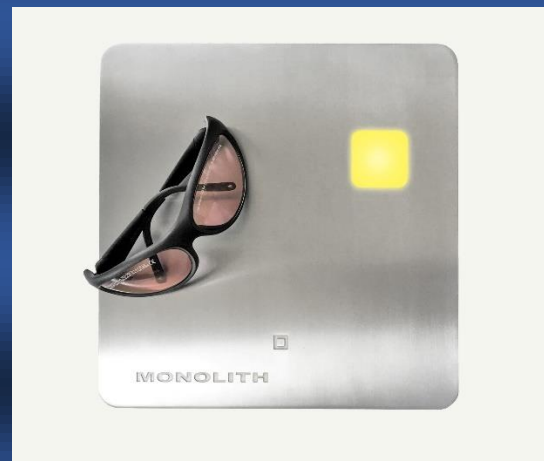
STATE-OF-THE-ART DIODE-PUMPED Q-SWITCHED, SOLID STATE LASER
 EXTRAORDINARY WALL-PLUG EFFICIENCY COMBINED WITH WORLD-WIDE
 SMALLEST FOOTPRINT OF ITS KIND
 ALL COMPONENTS, LASER HEAD, POWER SUPPLY AND CONTROLLER, ARE
 INTEGRATED INTO ONE ROBUST, COMPACT UNIT
 ULTRA-COMPACT Q-SWITCH OEM-LASER SOURCES FOR MATERIAL MACHINING
 AND MARKING APPLICATIONS

You have the choice

CORE

or

ALL-IN-ONE



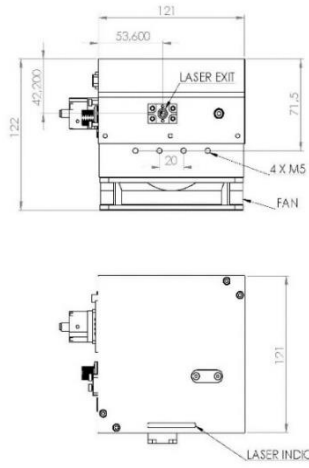
- Average Power: 16W for 1064nm, 12W for 532nm, 6W for 355nm
- Short laser pulse width: 4 to 10ns
- High single pulse energy: e.g. 500μJ at 355nm and 6kHz
- Significant single pulse peak power: up to 100kW
- Arbitrary repetition rate: 1Hz to 500kHz
- Multiple Pulse Control (MPS) function
- THG-shifter implemented (UV-version)
- Integrated safety shutter
- Integrated laser indicator light
- Up to 100.000 hours laser-diode-lifetime
- Air-cooling, water-cooling also available for e.g. clean-room processing
- Also available as complete marking system with software package
- Made in Berlin, Germany

	MONOLITH CORE / ALL-IN-ONE				
	1064-6-HF	1064-6-HE	1064-10-HF	1064-10-HE	1064-16-HF
Mode of operation	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Power class	6W	6W	10W	10W	16W
Wavelength	1064nm	1064nm	1064nm	1064nm	1064nm
Beam quality	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀
* M ²	<1.3	<1.3	<1.3	<1.3	<1.3
Polarization	Linear > 100:1				
Max. pulse energy	350µJ	700µJ	350µJ	700µJ	350µJ
Minimal pulse width	10ns	8ns	10ns	12ns	10ns
Repetition rate	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz
Aver. output power	6W@50kHz	6W@50kHz	10W@50kHz	10W@50kHz	16W@60kHz
Laser class	4				
Cooling	air cooled or optional water cooled				
Cooling system	thermo electric cooling				
Electrical ratings	24V DC				
Power consumption	< 200W				

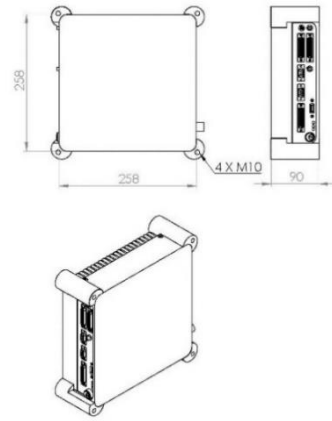
	MONOLITH CORE / ALL-IN-ONE				
	532-3-HF	532-3-HE	532-8-HF	532-8-HE	532-12-HF
Mode of operation	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Power class	3W	3W	8W	8W	12W
Wavelength	532nm	532nm	532nm	532nm	532nm
Beam quality	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀
* M ²	<1.3	<1.3	<1.3	<1.3	<1.3
Polarization	Linear > 100:1				
Max. pulse energy	200µJ	550µJ	350µJ	550µJ	350µJ
Minimal pulse width	8ns	9ns	9ns	12ns	9ns
Repetition rate	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz
Aver. output power	3W@40kHz	3W@6kHz	8W@40kHz	8W@12kHz	12W@60kHz
Laser class	4				
Cooling	air cooled or optional water cooled				
Cooling system	thermo electric cooling				
Electrical ratings	24V DC				
Power consumption	< 200W				

	MONOLITH CORE / ALL-IN-ONE				
	355-1-HF	355-1-HE	355-3-HF	355-3-HE	355-6-HF
Mode of operation	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Power class	1W	1W	3W	3W	6W
Wavelength	355nm	355nm	355nm	355nm	355nm
Beam quality	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀	TEM ₀₀
* M ²	<1.3	<1.3	<1.3	<1.3	<1.3
Polarization	Linear > 100:1				
Max. pulse energy	80µJ	350µJ	150µJ	500µJ	180µJ
Minimal pulse width	4ns	12ns	8ns	12ns	8ns
Repetition rate	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz	1Hz-100kHz	1Hz-500kHz
Aver. output power	1W@40kHz	1W@5kHz	3W@40kHz	3W@5kHz	6W@40kHz
Laser class	4				
Cooling	air cooled or optional water cooled				
Cooling system	thermo electric cooling				
Electrical ratings	24V DC				
Power consumption	< 200W				

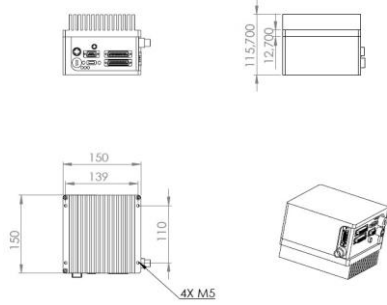
MONOLITH CORE beam source



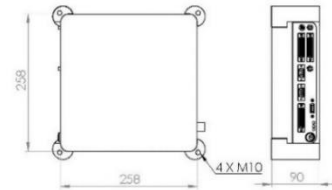
MONOLITH ALL-IN-ONE beam source



Ultra-compact control unit



Standard control unit



We reserve the right to make technical modifications without prior notice.