

FLAST-Precision

Fiber Laser Modules

FiberLAST – Fiber Laser Systems and Technologies first mandate is to completely fulfill any customer requirement on any kind of laser demand and need. Through dedicated R&Ds processes, innovations and always new achievements are the main goals of our company. The outstanding leadership in our sector is granted not only by the success of the classic high power nanosecond, picosecond, femtosecond pulsed fiber laser as well as CW fiber laser products but even from an extended and wide customizable features which places no limits to our technology capabilities. As evidenced to the faith of our growth over the past two years we have been winning three technological awards that do not represent a point of arrival but a new starting point.

FLAST-Precision Fiber Laser Modules main and valuable capability is to allow processing of usually particularly difficult materials such as glass

either polymer which have, due to their atomic structure and constitution, an extremely low absorption. **FLAST-Precision** picosecond regime pulse is capable to distribute and propagate its energy at high ratio level speed, with the outstanding result of a very microscopic HAZ. The outcome of having as pillar feature an incredible short pulse time, results in a superior edge quality which grant no melts and assure not even a single micro-crack. Surfaces aren't wreckage and any close structure either material is not compromised due to the no-heat transferred to surrounding materials. **FLAST-Precision** Fiber Laser Modules are built using prime quality materials in conjunction with a strong and robust shell make the machine modular and totally matching the industrial standards granting at the same time a reliable maintenance free scenario and a more than expected operational life time.

APPLICATIONS

- *Micromachining*
- *Solar/photovoltaic material processing*
- *THz generation*
- *Ablation*
- *Texturing*
- *Precise surface treatment*
- *Spectroscopy*
- *Thin film removal*
- *Obstacle detection*
- *Material recognition*
- *Material processing*
- *Marking*

ADVANTAGES

- *Proprietary design of FiberLAST*
- *High peak power*
- *No thermal damage*
- *Processing of various materials*
- *Very compact air cooled*
- *Maintenance free*
- *Robust and compact design*
- *Easily integrates into OEM products*
- *Outstanding customer support from product development*

OPTIONS

- *Customer defined control interface*
- *Customer defined delivery fiber cable length*
- *Extended warranty*
- *Customized laser output beam diameter*
- *Customer oriented designs & production*



FiberLAST

Winner of the TUBITAK 10th Technology (2012),
Winner of the TESID Creative Idea Award (2012) and
Winner of PARLAR Technology Incentive Award (2013)

FiberLAST

LASER	FLAST-Precision 5W	FLAST-Precision 10W	FLAST-Precision 15W	FLAST-Precision Glass	UNIT
Laser type	Yb-doped fiber laser			Yb-doped fiber laser	
Mode of operation	pulsed			pulsed	
Central Wavelength	1060±2			1035±5	nm
Bandwidth	15			15±3	nm
Average power	5	10	15	2	W
Repetition rate	30			≥200	kHz
Pulse width	55.0	52.5	50.0	0.3	ps
Peak power	4	7	10	33000	kW
Pulse energy	0,5			10	μJ
Beam quality	< 1,2			<1.5	
Polarization	random			linearly polarized	
Laser output ⁽¹⁾	collimator with isolator			free-space beam	

Environmental Conditions

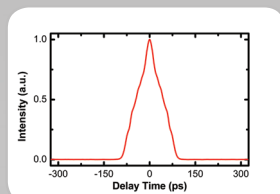
	Minimum	Maximum	UNIT
Operating temperature	+15	+35	°C
Storage temperature	+10	+60	°C
Humidity	%10	%90	

OPTIONAL PRODUCT

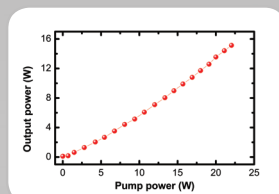
LASER	GREEN LIGHT MODULE	UNIT
Central Wavelength	517±3	nm
Bandwidth	10	nm
Average power	>200	mW
Repetition rate	≥200	kHz
Pulse width	<0.5	ps
Pulse energy	≥1	μJ
Beam quality	<2	
Laser output	free-space beam	

⁽¹⁾ Options available upon request.
PS: Oscillator can be delivered separately.

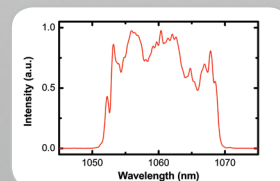
All specifications are subject to change & updates without notice.



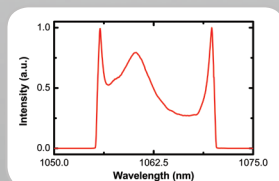
Laser Pulse Width Measurement



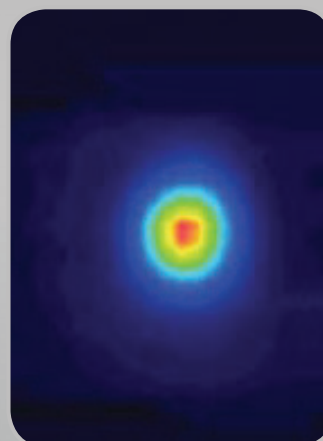
Laser Output Power



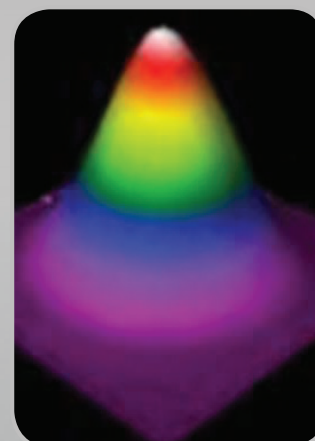
Laser Output Spectrum



Oscillator Output Spectrum



Beam Profile



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