1-micron Short Pulse, High-Energy and Peak-Power based Fiber Lasers

Optisiv HEFL-10xx Series is maintenance-free, short pulse, high power, fiber Q-switched lasers that allows adjustable repetition rate, with short pulse duration. The high beam quality, short pulse width, and high energy and peak power levels offer superb performance for material processing, solar cell manufacturing, and marking applications. Furthermore, the high peak power, narrow spectral width, and polarization maintaining architecture allow efficient wavelength conversion to Green (532 nm) and UV (355 nm).

Key Features:

- Central wavelength: 10xx nm
- Output average power: up to 15 W
- **Output peak power: up to 100 kW**
- **Pulse Energy: up to 1.2 mJ**
- Minimum pulse duration: 12 ns
- Adjustable repetition rate: up to 50kHz
- Beam quality: M^2<1.2
- Linear polarization Option
- compact package

Applications:

- Solar cell and semiconductor manufacturing
- Material processing (Micromachining, Drilling, Welding)
- Marking
- Frequency conversion
- Lidar

A flexible, diverse portfolio, for custom laser systems - Optisiv prides itself on providing its customers with total freedom of choice when it comes to purchasing a fiber laser solution.

Technical Specifications- Preliminary

Parameter	Units	HEFL-10		HEFL-20
Center Wavelength [1]	nm	1030-1080 +/-1 (fixed)		
Max. Average Power(pulse)	W	10		15
Max. CW Power	W	15		20
Pulse Width [2]	ns	12-20		
Repetition Rate	kHz	0.001-50		
Pulse Energy @10kHz	mJ	1.0		1.5
Max Peak Power[2]	kW	<100**		<100**
Polarization		Random		
Output		Free space		
Operating Temp.	°C	10-40		
Storage Temp.	°C	-20-70		
Operating Voltage	VAC	220 V		

[1] Upon request any wavelength between 1030-1080 nm
[2] Depends on the power and repetition rate

Options

- Output beam expander.
- Red aiming beam.
- linear polarization
- Nero bandwidth for frequency conversion.