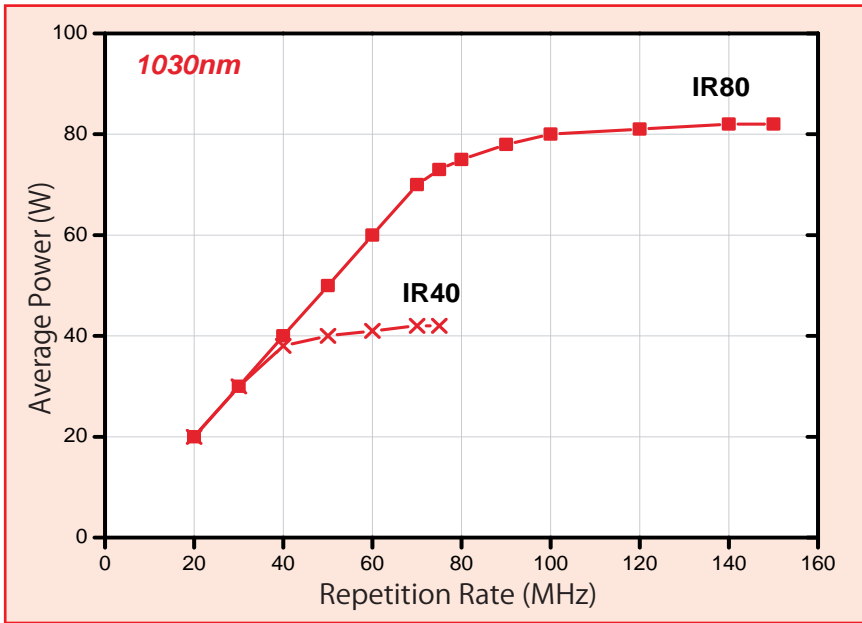


BOREAS IR



NANOSECOND HIGH POWER FIBER LASER

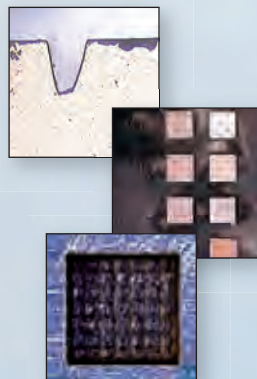


Key Features

High Power	up to 80W at 1030 nm
High repetition rate	up to 150 kHz
Short ns pulses	down to 15 ns
Excellent beam quality	$M^2 < 1.3$ over full repetition rate
Superior power stability	2% over 8 hours
24/7 industrial design	

Applications

- Metal deep engraving
- ITO ablation
- High speed plastic cutting
- Photovoltaic manufacturing



BOREAS

NANOSECOND HIGH POWER FIBER LASER

Laser characteristics	IR40	IR80
Wavelength	1030 nm	1030 nm
Max average power*	40 W	80 W
Repetition rate	20-75 kHz	20-150 kHz
Energy per pulse**	1 mJ	1 mJ
Pulse width**	<15 ns	<15 ns
Beam quality M ² over full frequency range	<1.3	<1.3
Polarization	>99% linear	>99% linear
Beam circularity	>95%	>95%
Beam diameter	2 mm	2 mm
Beam divergence (half angle)	0.4 mrad	0.4 mrad
Average power stability over 8h (RMS 1σ)	<2%	<2%
Pulse to pulse energy stability (RMS 1σ)	<2%	<2%
Bore sight accuracy	1 mm & 5 mrad	1 mm & 5 mrad
Beam pointing stability (RMS 1σ, in % divergence)	2%	2%
	* **	@75 kHz up to 35 kHz @150 kHz up to 70 kHz

General characteristics	IR40	IR80
Laserhead size in mm	950x235x105	950x235x105
Power supply size in mm	19 inch 6U rack - 483 x 266 x 605	
Laserhead Weight	30 kg	30 kg
Power supply Weight	33 kg	33 kg
Cooling type	water cooled	
Electrical power consumption	Max 750 W	Max 750 W
Power requirement	100 V / 240 V, 50/60 Hz single phase	
Fiber & cable length (from power supply to laser head)	Fibre length = 5, m RF / Dsub25 = 5 m	
Interfaces	USB and RS232	
Cooling requirement	900 W max. heat load	900 W max. heat load

OPTIONS

External Shutter, Attenuator

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