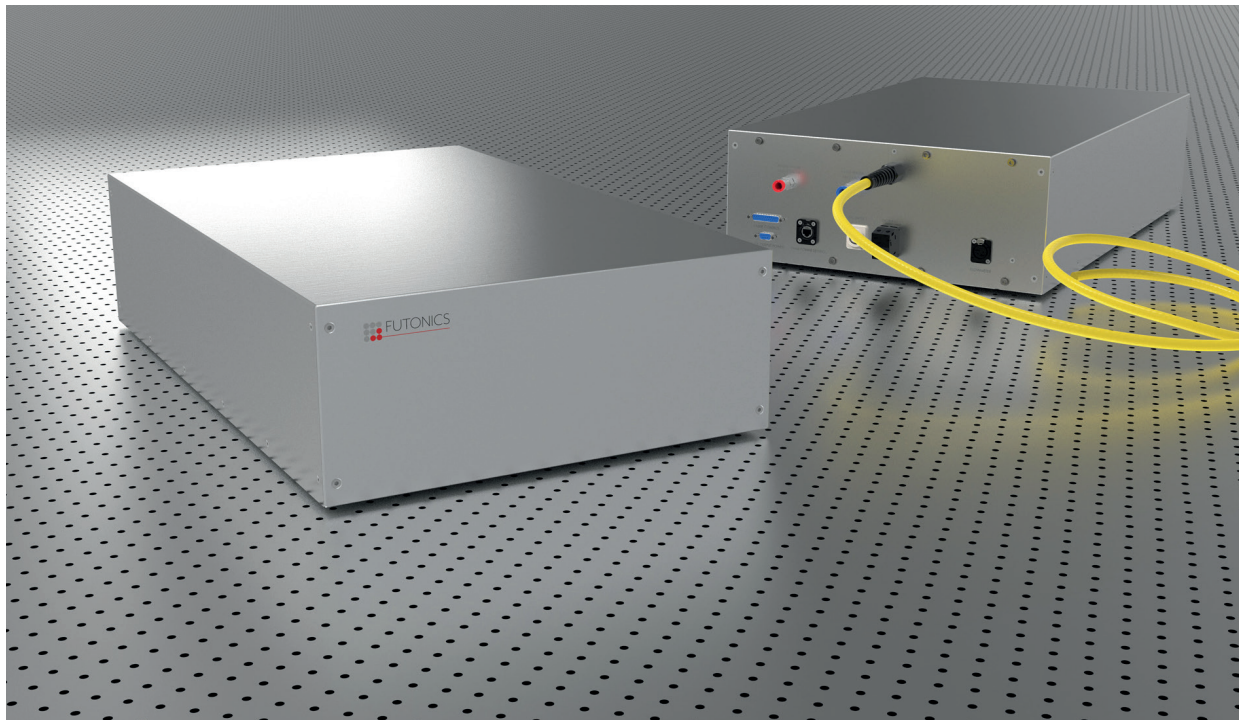


IFL QCW 550/650 LASER MODULES



The new IFL QCW 550 and IFL QCW 650 fiber laser modules based on thulium-doped single-mode fiber oscillators with wavelength stabilization by fiber Bragg gratings (FBG). The laser modules can be operated in pulsed and continuous wave mode.

Applications:

Medicine

- Laser lithotripsy (treatment of ureteral, bladder and kidney stones)
- General surgery (tissue cutting)

Biology

- Cutting biological materials
- Destroying weeds

Applications:

Material processing of plastics

- Welding
- Cutting
- Marking
- Engraving
- Drilling

Science

- Pump laser for holmium laser systems



IFL QCW 550/650 LASER MODULES



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Mechanical Specifications	IFL QCW 550	IFL QCW 650
Dimensions ¹	435 x 177 x 705 mm (without connectors)	
Weight	31.5 kg	
Optical Specifications		
Mode of Operation	Pulsed, Continuously (cw)	
Centrale Wavelength	1940 ± 20 nm	
Width Emission Spectrum (FWHM)	< 1 nm	
Output Power (cw)	120 W	150 W
Peak Power	550 W	650 W
Pulse Energy	0.05 – 15 J	0.05 – 18 J
Pulse Length	0.1 – 50 ms	
Repetition Rate	1 – 3000 Hz	
Long-term Stability	< 1.0 %	
Beam Quality	M ² < 1.2	
Laser Safety Class	4	
Fiber Connector	Futonics Standard	
Electrical Specifications		
Efficiency (electrical to optical)	> 12 %, typisch 14%	
DC Input 1	24 V, 2.0 A	
DC Input 2 pulsed	44.5 V, 66 A	44,5 V, 80 A
cw	44.5 V, 22 A	44,5 V, 24 A
Power Consumption	cw < 1 kW, pulsed < 3 kW	cw < 1.2 kW, pulsed < 3.5 kW
Cooling		
Coolant	Water	
Flow rate	1 – 3 liters / minute	
Water temperature ⁴	16 – 22 °C	
Water connectors	CPC / Festo	

¹ Width x height x depth

² Higher output power on demand

³ Measured over one hour, T = constant

⁴ Non-condensing

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