



Powering Industrial Lasers Forward Laser Engines

Integrated Optical Cavity Solutions up to 2kW

ITF Technologies' Laser Engines are built and designed based on our long time expertise in Large Mode Area fiber handling and component manufacturing. They feature exceptional pump to laser efficiency and beam quality. With the proper pump configuration, they will deliver maximum laser power using the minimum number of pump diodes.

The use of ITF Laser Engines allows our customers to take advantage of optimal optical performance while being able to concentrate their efforts on other parts of their laser system. They are therefore able to optimize their system design to best answer the market and their own needs.

KEY FEATURES

High Pump Conversion Efficiency

Custom Configurations Available

Single module up to 2kW

New design - improved hermeticity

APPLICATIONS

Industrial Fiber Lasers Fiber Laser Combination kW Class Fiber Lasers

Industrial & Research

FOR MORE INFO

Please contact us at: North America: **514.748.4848 888.922.1044** Europe: +33 (0) 1 69 80 57 50 Asia: +86 755 2671 0449 or via e-mail at: info@itftechnologies





Laser Engines

POWERING INDUSTRIAL LASERS FORWARD

Optical specifications

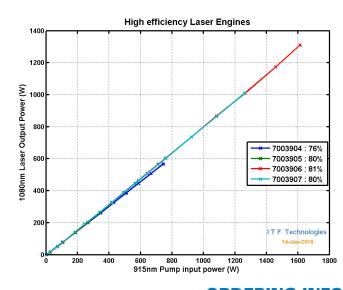
	1 KW CLASS	2 KW CLASS
Center wavelength	1080nm +/- 5nm	1080nm +/- 5nm
Optical-Optical Efficiency	>73% (typical >75%)	>73%
Polarization	Random	Random
M2	< 1.2	< 1.5
Laser line width	> 1nm	> 1nm
Power variation over one hour	less than +/-1% (after warmup)	less than $+/-1\%$ (after warmup)
Output Power	500W or 1000W	2000 W

Pump requirements

	VALUE	NOTES
Number of pump input ports	6 to 24	Depending on customer's pump diode choice
Pump fiber	106.5/125um or 135/155um NA=0.22	Other fibers also available for custom projects
Pump wavelength	915nm	> 95% of energy inside 908-928nm over full operation range

Mechanical and environmental specifications

	VALUE	NOTES
Dimensions	375mm x 375mm x 30.5mm	Same dimensions on all power classes
Operating temperature	15C to 25C	Base plate temperature, non condensing
Storage temperature	-40 to 75° C / $<$ 80% relative humidity	Non condensing
Delivery fiber	20/400um (1kW) or 25/400um (2kW)	50um and 100um core outputs also available
Delivery cable	Optional QBH optical cable available	Variable length



1kW Laser Engine Power stability 1100 1080 1060 ŝ 1040 Laser Engine output Power 1020 1000 980 960 941 920 ITF Technologies 900 10 20 40 50 time (min)

Tel: +1 514 748 4848 Fax: +1 514 744 2080 Toll Free: +1 888 922 1044

www.itftechnologies.com info@itftechnologies.com



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ORDERING INFO ITF Technologies inc. 400 Montpellier Blvd., Montreal, QC H4N 2G7