

3 µm mode-locked fiber laser

0

-40

-60

-100 -100

40

power (dB)

RГ -80 f_{cent} = 26 MHz

White

20

0

Detuning (kHz)

RF SNR = 73 dB

PRODUCT BRIEF

KEY FEATURES

- 6 ps pulse width (FWHM) at a central wavelength of 2.86 µm
- > 25 MHz repetition frequency
- > 3 nJ pulse energy
- > 0.5 kW peak power
- Diffraction limited beam quality
- Turn key operation, no external cooling

POSSIBLE **APPLICATIONS**

- Mid-IR Supercontinuum Generation
- Spectroscopy
- Laser surgery
- Countermeasures
- > Pump laser for OPA in the mid-IR

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OVERVIEW

The 3 µm Mode-locked Fiber Laser offers a compact source of ultrashort pulses in the mid-Infrared with the robustness and turn-key operation of fiber laser technology. This laser, which is the longest wavelength modelocked fiber laser available. offers peak powers up to 500 W at a repetition frequency of 25 MHz. The pulses are delivered through a singlemode ruggedized fiber output, which yields a diffraction limited beam in free-space. The laser operation is completely turn-key with no realignment ever necessary and all system controls, such as power and temperature, are managed through a simple front-panel touch screen.

PRELIMINARY **SPECIFICATIONS**

50 mW average power 6 ps pulses at 25 MHz repetition frequency

PAPER

Tomonori Hu, Darren D. Hudson, and Stuart D, Jacksoin, "Stable, self-starting, passively modelocked fiber ring laser of the 3 µm class", Opt. Lett. 39, 2133-2136 (2014)



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