

# Y-Fi™ OPA - Robust, Briefcase-Sized Tunable Ultrafast SWIR/MWIR Source

Thorlabs recently acquired the Y-Fi product line from KMLabs, and this datasheet is currently being reviewed. An updated specification sheet in Thorlabs' template will be available in the coming weeks. Please refer to the website for the most up-to-date information.

## Applications

- 3- and 4-photon excitation fluorescence microscopy
- Short-wave IR (SWIR) pumped 2nd and 3rd harmonic generation microscopy
- 2-photon excitation fluorescence microscopy with SHG of the SWIR
- Mid-wave infrared (MIR) micro-spectroscopy
- Tip-enhanced (MIR) nanoscopy (aka nano-spectroscopy)
- Time-resolved MIR spectroscopy
- SWIR and MIR supercontinuum generation

## Features

- Industry-leading repetition rate for SWIR OPA, leading to optimal multi-photon microscopy signal levels and imaging depths
- Class-leading MIR average power @ >2 MHz repetition rate
- Access to all three outputs: signal (SWIR), idler (MIR), and depleted pump (NIR)
- By-pass port for access to the full Y-Fi HP capabilities
- Single-box system containing both fiber laser and OPA: 12" x 16" x 6"
- Fiber-coupled signal (SWIR) monitor port
- Intuitive control GUI including wavelength and repetition rate with integrated diagnostics

Fiber laser-amplifier system with integrated infrared OPA. Computer-controlled tuning, hands-free operation

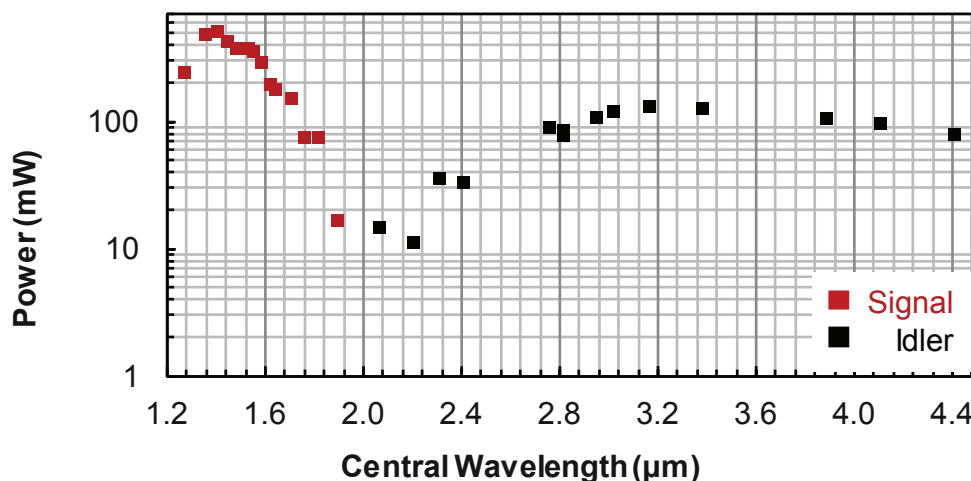


The Y-Fi™ OPA is KMLabs' vertically integrated optical parametric amplifier pumped by a Y-Fi™ HP. The class-leading pulse duration of the 1035 nm centered Y-Fi™ HP results in both a stable, coherent white light seed source and exceptionally high conversion efficiency into the short-wave and mid-wave infrared.

### Y-Fi™ OPA Unique Features

- Tunable repetition rate range of 1-3 MHz
- > 15% conversion efficiency into Signal and Idler
- Supports < 50 fs pulses at the peak of the tuning curve
- Y-Fi™ HP output (1035nm, 3  $\mu$ J) also available, direct or residual after OPA
- Compact form factor: 12" x 16" x 6" optical head

### Y-Fi™ OPA Tunability



*Contact us for full specifications or with questions*