

# Ycomb: Ytterbium Fiber Comb

Power scalable, ultra-low noise

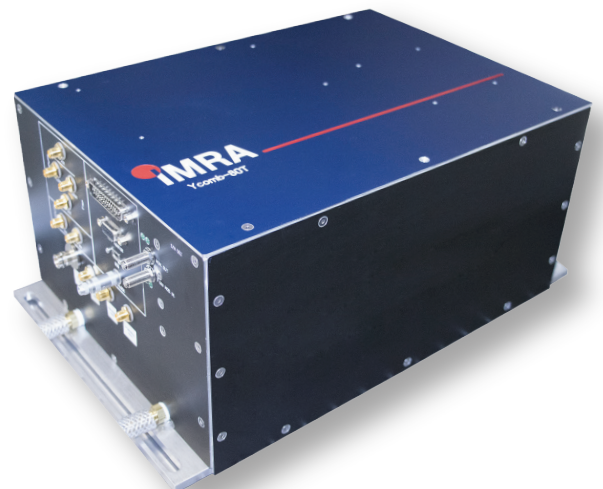
*IMRA America offers a frequency comb for easy integration into power hungry applications. The comb features an all-fiber based platform with modulator design, allowing for straight-forward addition of high power amplifiers. It provides ultra-low phase noise and a high level of frequency stability.*

## Features

- 100 MHz repetition rate
- 200 kHz repetition rate tuning range
- PM fiber-coupled output
- Integrated  $f_{\text{ceo}}$  detection
- High coherence 650 - 1400 nm continuum
- Vibration and temperature insensitive
- Compatible with IMRA ULC locking electronics
- In-field replaceable pump diodes
- Remote operation via ethernet

## Available Extensions

- 100 W Yb comb
- Clock wavelengths selectable from 650 - 1400 nm



Ycomb-100 Specifications	
Repetition Rate	100 ± 0.5 MHz
Tuning Range	> ± 100 kHz
F <sub>rep</sub> Control Bandwidth	> 100 kHz
Free-running f <sub>ceo</sub> SN	> 30 - 35 dB at 100 kHz resolution
Supercontinuum Output	650 - 1400 nm
Outputs via PM FC/APC-coupled Fiber	2.0 meter
Power per Port	> 1 mW
High Power Option 1	> 700 mW with sub 100 fs
High Power Option 2	> 10 W with sub 100 fs
High Power Option 3	> 100 W with sub 200 fs
Center Wavelength per Port	1050 ± 20 nm
Spectral Width per Port	> 10 nm
Monitor Port Power	> 1 mW
System Size	370 x 468 x 160 mm (base comb), size varies vs power
Storage Temperature	-20 °C to +50 °C
Warm-up Time	< 2 hours
Operational Temperature	-20 °C to +50 °C
Power Consumption	< 100 W
Interlock	via Limo connector
Laser On/Off	Via PC

Compatible with IMRA's  
Universal Locking Electronics (pictured)



## Product Features

- Up to 6 PM fiber-coupled outputs
- Different repetition rates in range 25 - 125 MHz available
- > 300 kHz f<sub>ceo</sub> control bandwidth available, upon request



\*Yb-fiber comb is currently not certified to the Laser Product Performance Standard from the U.S. FDA/Center for Devices and Radiological Health (CDRH). U.S. federal regulations require that lasers that are not certified to the CDRH standard be sold only to manufacturers of electronic products for use as components in such products.

1044 Woodridge Ave.  
Ann Arbor, MI 48105  
Phone: 734.930.2560  
Fax: 734.930.9957  
combs@imra.com  
www.imra.com