Ecomb-250R: Erbium Fiber Comb

Rack-mounted, ultra-low noise

IMRA America offers a high performance frequency comb for advanced metrology applications, such as optical clocks and comb spectroscopy. The rack-mounted comb integrates easily, especially where a portable system is premium. An all-erbium platform, the frequency comb comes with fiber-coupled outputs and provides ultra-low phase noise, timing jitter, and superior frequency stability.

Features

- 250 MHz repetition rate
- 600 kHz repetition rate tuning range
- High coherence 1050 - 2200 nm continuum
- PM fiber-coupled output
- Vibration and temperature insensitive
- Integrated f_{ceo} detection
- Compatible with IMRA ULC locking electronics

Available Extensions

- 2 W Er comb
- 5 W Tm comb
- High coherence visible continuum
- Clock wavelength outputs selectable from 530 - 1200 nm
- > 10 mW mid-IR comb
- Radiation-hardened design
- OEM versions

IMRA
The Femtosecond Fiber Laser Company

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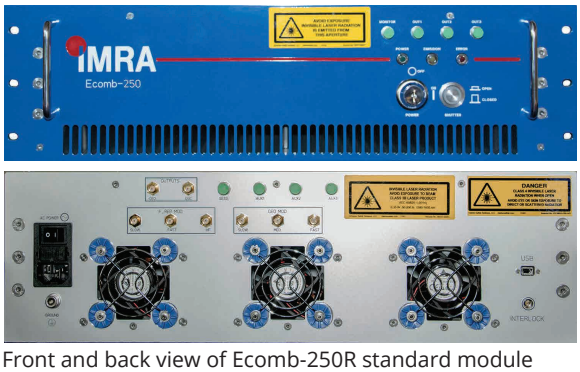
Ecomb-250R Specifications	
Repetition Rate	250 ± 0.5 MHz
Tuning Range	> ± 600 kHz
F_{rep} Control Bandwidth	> 500 kHz
Free-running f_{ceo} SN	> 35 dB at 100 kHz resolution
Supercontinuum Output	1050 - 2200 nm
Outputs via PM FC/APC-coupled Fiber	2.0 meter
Power per Port	> 5 mW
High Power Port Option 1	> 450 mW (with separate unit)
High Power Port Option 2	> 2.0 W (with separate unit)
Center Wavelength per Port	1560 ± 20 nm
Spectral Width per Port	> 25 nm at -3 dB point
Monitor Port Power	> 1 mW
System Size	19”, 3U rack-mountable, 22” long
Storage Temperature	-20 °C to +50 °C
Warm-up Time	< 2 hours
Operational Temperature	20 ± 2.5 °C
Power Consumption	< 150 W
Interlock	Via Lemo Connector
Laser On/Off	Via PC

Product Features

- Up to 3 PM fiber-coupled outputs
- Tunable repetition rate via PC
  50 - 250 MHz available
- > 300 kHz f_{ceo} control bandwidth availabe, upon request



Front and back view of Ecomb-250R standard module

*Er-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 certfiied 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