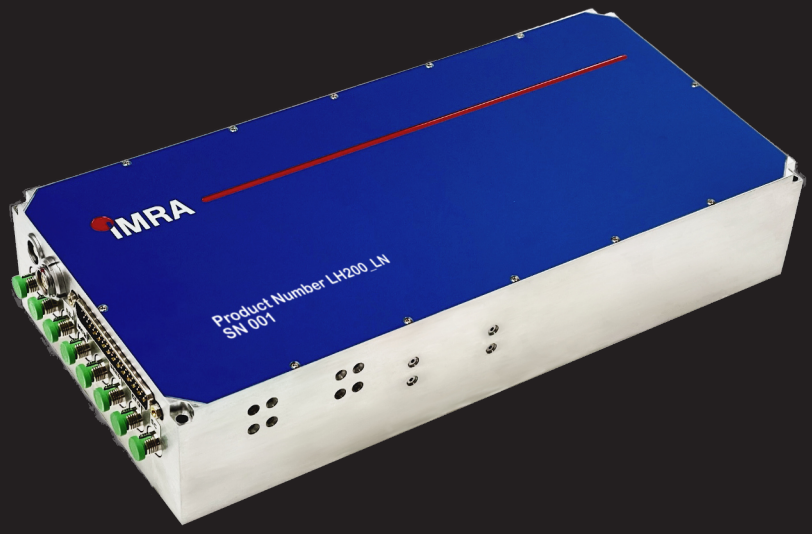
LH 200_LN: OEM Erbium Fiber Comb

Ultra-compact, lowest phase noise for easy system integration

IMRA America offers an ultra-high performance frequency comb for frontier metrology applications, such as the highest precision optical clocks and quantum computing in a convenient OEM package. The comb can be easily integrated within complex OEM system architectures, or used by researchers to build up advanced science experiments on an optical table with minimal footprint. The all-fiber platform comes with fiber coupled outputs and provides ultra-low phase noise, timing jitter, and superior frequency stability.



Features

- 200 MHz repetition rate
- 1 MHz repetition rate tuning range
- High coherence 1050 – 2200 nm continuum
- PM fiber-coupled output
- Vibration and temperature insensitive
- Integrated fceo detection
- Compatible with IMRA ULC locking electronics

Available Extensions*

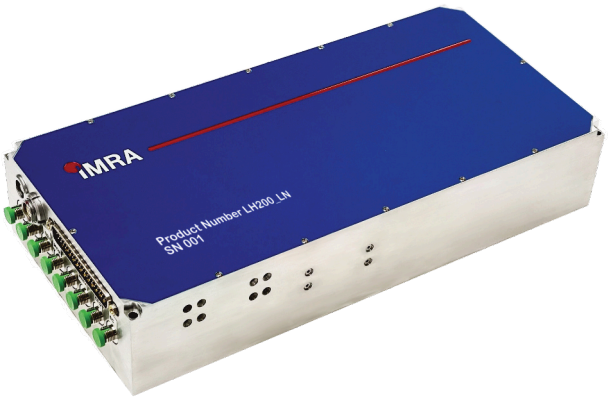
- Rack-mounted control electronics
- 2 W Er comb
- 5 W Tm comb
- High coherence visible continuum
- Clock wavelengths selectable from 450–1200 nm
- 50 mW mid-IR comb
- Extended environmental compliance

**depending on system parameters, sizes may vary*

IMRA
The Femtosecond Fiber Laser Company

LH200_LN Specifications for OEM applications	
Rep. rate	200 ± 1 MHz
f_{rep} Tuning range	> 1 MHz
f_{rep} control bandwidth	> 500 kHz
Free running f_{ceo} SN	> 40 dB at 100 kHz res.*
f_{ceo} control bandwidth	> 300 kHz
Supercontinuum/ f_{ceo} Output	Common mode via collimated pigtail**
Pigtail Length	75 cm
f_{beat} phase noise	<70 mrad integrated from 1 Hz to MHz***
f_{ceo} phase noise	<100 mrad integrated from 1 Hz to MHz***
Supercontinuum Coverage	> 1300 - 1700 nm, 1060 - 2200 nm available**
Up to One Additional Output at 1560 nm	Via FC/APC @1560 nm with > 1 mW
Spectral Width per Port	> 25 nm at -3 dB point
System Size	270 x 130 x 53 mm
Storage Temperature	-20 °C to +50 °C
Operational Temperature	20 ± 2.5 °C
Warm-up Time	< 2 hours
Required Heat Sink Thermal Impedance	< 0.35 C/W
Power Consumption	< 15 W
Electronic Control Connectors	D-sub, Norcomp, and Triax IV

*With appropriate detector (av. on request)
**two supercontinuum/fceo outputs with LH200_LN_2f version
***With IMRA control electronics Edriver & ULC, available on request
IV Please contact IMRA for details/customization



IMRA

* LH200_LN 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.

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