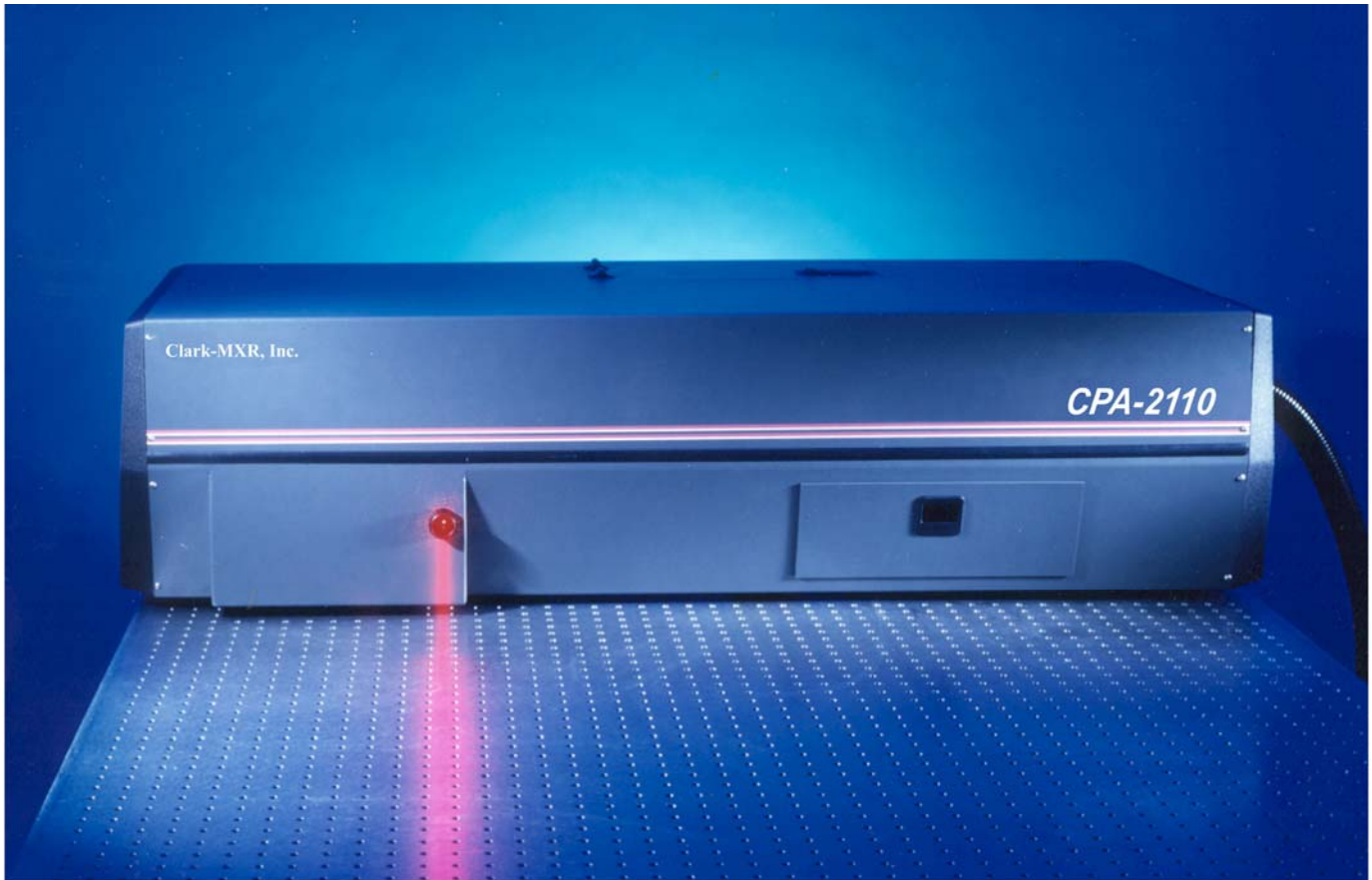


Model CPA-2110 100 Hz to 2 kHz Ti:Sapphire Laser System



- Complete computer control
- Fully-integrated system including
 - Telecom diode-pumped fiber oscillator with 20 year MTTF and 5-year warranty
 - Pulse stretcher
 - Regenerative amplifier
 - Hz to kHz pump laser
 - Pulse compressor
 - Built-in diagnostics
 - Complete thermal stabilization
- All the above in one compact enclosure
- User-adjustable rep rate 100 Hz to 2 kHz
- Built-in electronic shutter for “pulse-on-demand” delivery of single or multiple pulses up to 64,000 at selected rep rate.
- Smallest footprint in the industry
- Drift-free, NO TWEAK™ performance
- Transportable
- Ideal for pumping OPA's

Our field-proven CPA-Series Regenerative Amplifiers redefine user-friendliness in a fully integrated system with *complete* computer control of important functions via the included touch-screen controller or remotely from any Windows®-based computer with network connection.³ The embedded software provides computer control of laser performance parameters such as power output, pulse width, pump power, timing, and selection of single pulse or bursts of multiple pulses from 2 to 64,000 at a repetition rate of your choosing. A suite of diagnostics is included to monitor laser performance. The simple, intuitive, user-friendly interface provides both status information and control from external devices. A software development kit is also available for interfacing with your existing application-specific, custom software.

The turn-key nature of this extremely compact laser accentuates its productivity and utility. A truly No Tweak™ design, it will run for days without needing to be readjusted to optimize performance. The CPA-2110 is not a breadboard construct, but a fully-integrated “utilities in, photons out” one box design - saving you tens of thousands of dollars in valuable table space. It is fully compatible with our NOPA® visible and the Light Conversion TOPAS OPA for generating ultrashort pulses tunable from < 200 nm to beyond 20 microns. For pump-probe experiments requiring two or more synchronized and independently-tunable colors, the CPA-2110's output beam can be split to pump two or more OPA's that are synchronized with less than 1 femtosecond timing jitter.¹

Performance Parameters:

Femtosecond Version:

Pulse energy: > 1 mJ at repetition rates \leq 1 kHz,
> 600 μ J at repetition rates between 1 kHz
and \leq 2 kHz
Pulsewidth: <150 fs
TBWP: <1.4 x transform limit (sec^2)

Additional output options²:

Oscillator wavelength: Average power output > 10 mW, at 1550 nm or > 3 mW at 775 nm at nominal repetition rate of 30 MHz.
Amplifier pump laser: up to 10 mJ/pulse at circa 200 ns pulsewidth at 532 nm.

General:

Wavelength: 775 nm
Transverse mode: TEM₀₀
M²: 1.2 \pm 0.1
Rep. Rate: User-adjustable up to 2 kHz
Polarization: Linear, horizontal
Energy stability: < 1% rms
Beam diameter: 4 – 6 mm
Beam divergence: < 100 microradians

Physical Dimensions:

Laser head: 48" L x 20" W x 12" H
Power supply: 28" H x 23" W x 38" D

Utility Requirements:

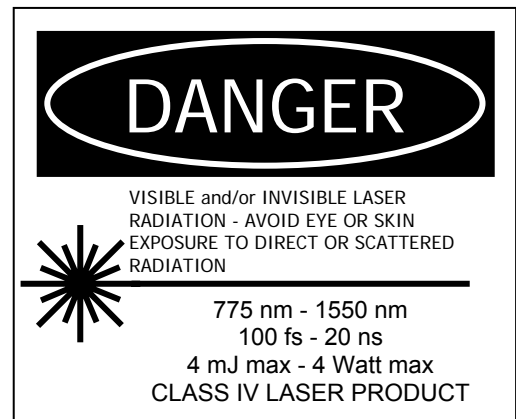
Electric: 110 VAC, 60 or 50 Hz, 10 A and
208 VAC, 60 or 50 Hz, 40 A
Water: Tap water, 4 gpm, <15-20°C,
30-50 psi

¹Contact Clark-MXR at sales@cmxr.com for further details.

Warranty

Oscillator parts, including the diode laser, are warranted for 40,000 hours or five (5) years, whichever comes first. For details, contact our sales department (sales@cmxr.com).

This product protected under US patent numbers:
5,530,582
5,572,358
5,592,327
5,594,256



Version 090107
Due to space limitations, only basic information and specification parameters are listed on this sheet.
For more details, please visit our web site at <http://www.cmxr.com>.

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All specifications subject to change without notice.

