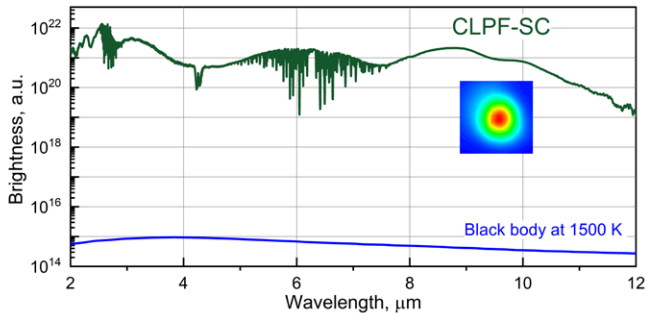


CLPF-2500-SC IDFG SERIES

Femtosecond Ultrabroadband Vis-to-IR Source



Typical Emission Spectra



FEATURES

- ▶ High Spatial Coherence
- ▶ High Brightness
- ▶ Beam Quality $M^2 < 1.5$
- ▶ TEM₀₀
- ▶ Power and Energy Amplifiers
- ▶ DFG Wavelength Extension
- ▶ High Optical Power (up to):
 - Near-IR – 0.2 W
 - MIR – 4 W
 - LWIR – 10 mW
- ▶ Fully Stabilized Frequency Comb Option



APPLICATIONS

- ▶ FTIR Spectroscopy
- ▶ Dual Comb Spectroscopy
- ▶ Multi-photon Imaging
- ▶ Metrology
- ▶ Biomedical Applications
- ▶ High-harmonic Generation
- ▶ Mid-IR Frequency Combs
- ▶ Supercontinuum Generation

IPG Photonics introduces an important addition to the family of middle-IR femtosecond lasers. NEW CLPF oscillators/amplifiers in combination with the supercontinuum spectral extension module (**CLPF-2500-SC Series**) provide access to the whole Vis-to-IR spectral range (400 nm to 18 μm) with record-breaking Watt-level average power.

As an option, CLPF-2500-SC series can be converted to CLPF-2500-FC optical frequency comb with the addition of pulse repetition frequency and carrier envelope offset frequency stabilization (complete kit available). Optical lock to a stabilized 1064 nm laser and automated pulse repetition frequency tuning are offered as options for dual comb spectroscopy applications.

Please discuss your needs with an IPG Photonics representative.

CLPF-2500-SC IDFG SERIES

Femtosecond Ultrabroadband Vis-to-IR Source

Optical Characteristics	CLPF-2500-FC IDFG
Central Wavelength, nm	2500
Spectral Bandwidth (-20 dB), nm	13000
Average Power, W	2
Pulse Energy, nJ	25
Repetition Rate*, MHz	80
Typ. Pulse Duration, fs	24
Long Term Power Stability**, %	1
Polarization	Linear, >100:1
Output Beam Mode, M2	≤1.5
Beam Diameter (FW, 1/e2), mm	1.5 ±0.5
Beam Divergence, mrad	<0.5
Warm up Time, min	15-60

* Custom repetition rates are available upon request.
 ** After 1 hour warm up, over 2 hours, ambient T ±2°C

General Characteristics

Integrated Pump Laser	IPG Photonics Erbium CW Fiber Laser
Pump Laser Dimensions (W × D × H), mm	448 × 403 × 132
Optical Head Dimensions (W × D × H), mm	170 × 450 × 150
Supply Voltage 50-60 Hz, VAC	110-240
Power Consumption, W	200 Typ.



+1 (508) 373-1100;
IPGPhotonics.com/contact
www.ipgphotonics.com

MAX. AVERAGE OUTPUT POWER: 40 W
 MAX. PEAK OUTPUT POWER: 1 GW
 PULSE DURATION: 30 fs
 PULSE REPETITION RATE: <500 kHz
 WAVELENGTH RANGE: 2000-2700 nm

DANGER - INVISIBLE LASER
 RADIATION AVOID EYE OR SKIN
 EXPOSURE TO DIRECT OR
 SCATTERED RADIATION
 CLASS 4 LASER PRODUCT
 IEC 60825-1:2014