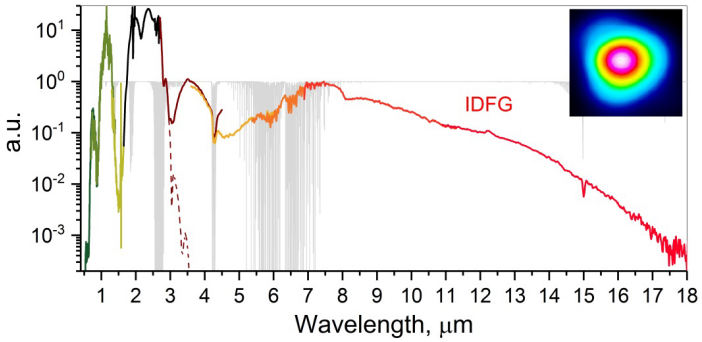
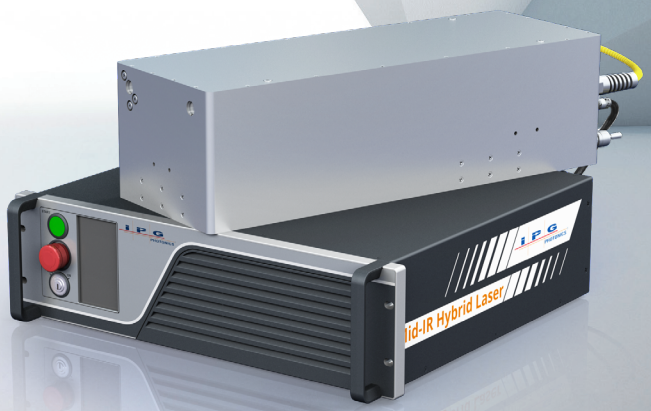
CLPF-2500-SC IDFG SERIES

Femtosecond Ultrabroadband Vis-to-IR Source



Typical Emission Spectra



FEATURES

- High Spatial Coherence
- High Brightness
- Beam Quality M^2 <1.5
- TEM_{00}
- 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-braking 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.

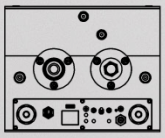
CLPF-2500-SC IDFG SERIES

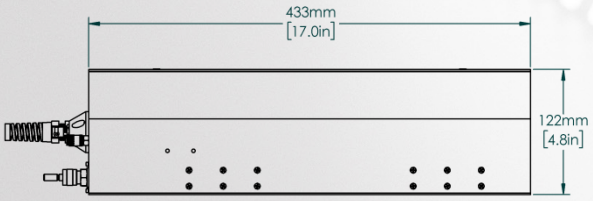
Femtosecond Ultrabroadband Vis-to-IR Source

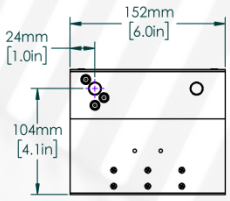
Optical Characteristics	CLPF-2500-FC IDFG
Central Wavelength, nm	2500
Spectral Bandwidth (-20 dB), nm	13000
Average Power, W	2
Pulse Energy, nJ	25
Repetition Rate*, MHz	80
Typ. Pulse Duration, fs	24
Long Term Power Stability**, %	1
Polarization	Linear, >100:1
Output Beam Mode, M2	≤1.5
Beam Diameter (FW,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

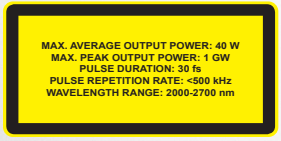
* Custom repetition rates are available upon request.
** After 1 hour warm up, over 2 hours, ambient T ±2°C

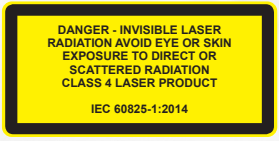
General Characteristics	
Integrated Pump Laser	IPG Photonics Erbium CW Fiber Laser
Pump Laser Dimensions (W × D × H), mm	448 × 403 × 132
Optical Head Dimensions (W × D × H), mm	152 × 433 × 122
Supply Voltage 50-60 Hz, VAC	110-240
Power Consumption, W	200 Typ.











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