

The Chromacity **Spark FIR** – the first broadband optical parametric oscillator in the mid-infrared region from 5 – 12 μm .



Powerful mid-infrared broadband quasi-CW optical parametric oscillator.

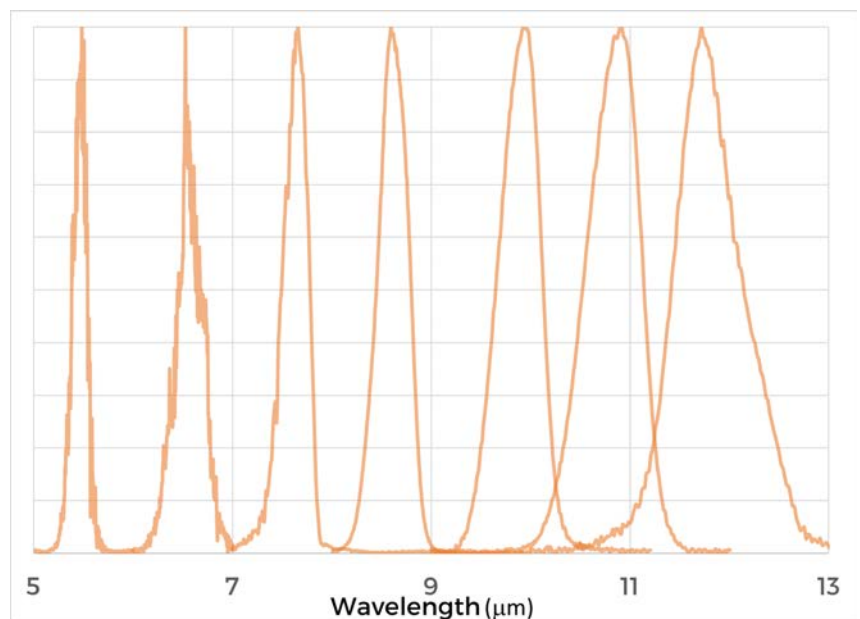
- First commercial quasi-CW OPO in the fingerprint region
- Spectral output available from 5-12 μm
- Up to 80 mW from 5-7 μm region and up to 10mW at 12 μm .
- Optional pump output port
- 100 MHz repetition frequency
- Turnkey operation with web-based control

Applications include:

- Finger-print region spectroscopy
- Infrared spectroscopy
- Gas sensing
- Stand-off chemical sensing
- Material characterization and metrology
- Hyperspectral imaging
- Breath analysis
- Atmospheric research
- Combustion diagnostics
- Photoacoustic spectroscopy

Web-based control

- Easy to use interface
- Safety shutter and laser emission control over ethernet and wifi
- Door interlock error alerts
- Control multiple lasers
- RS232 control as standard



Representative spectra obtained from Spark FIR

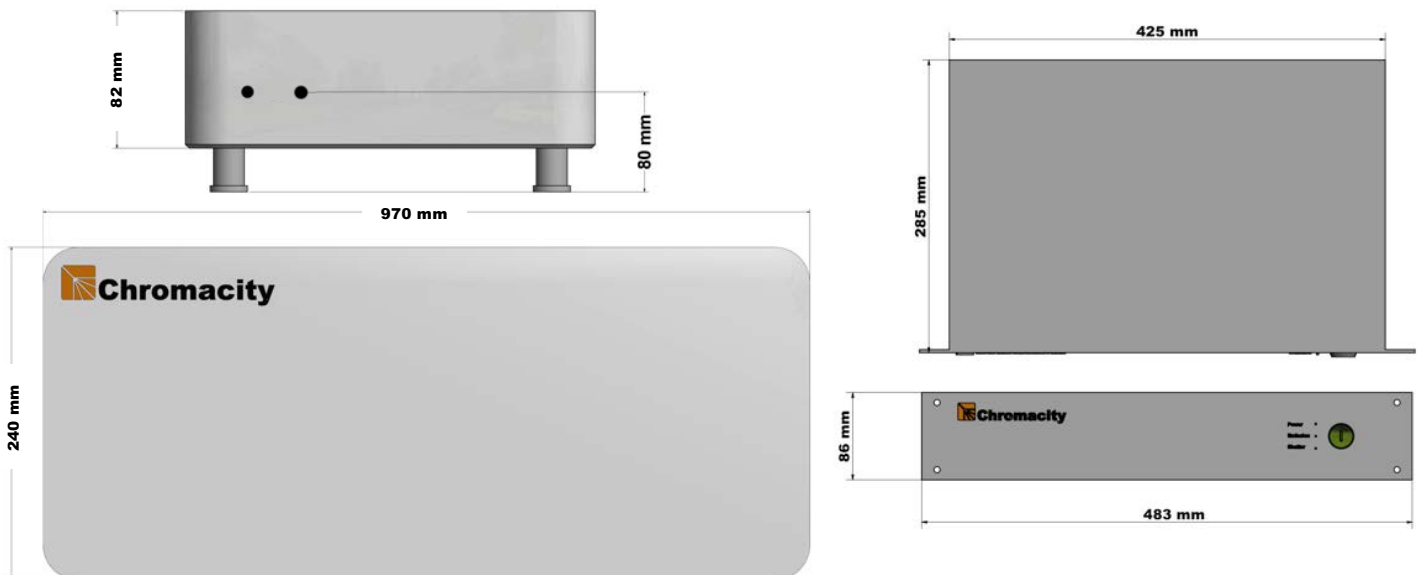
Specifications and options

Options

Output wavelength	5-12 μm output available.	Individual QPM gratings provide up to 1 μm coverage
Output power	Up to 75 mW at 5-7 μm and up to 10mW at 12 μm	Optimised systems for specific wavelengths available on request.
OPO Wavelength tuning	Wavelength tuning is available through multiple QPM gratings	Please contact Chromacity for tuning options.
Pump source	Integrated Spark 1040 laser oscillator	Further details of pump source on request
Pump wavelength	1040 nm	
Repetition frequency	100 MHz Monitor photodiode	
Control interface	Ethernet, and web page Serial port (for control via LabView/MatLab)	Custom interface available
Dimensions	970 x 245 x 82 mm (laser head) 483 x 285 x 86 mm (control unit)	
Weight	18 kg (laser head) 2 kg (control unit)	
Electrical	Voltage 110 - 240 V AC Frequency 50 - 60 Hz Power 80W	
Cooling	Air cooled	

Specifications subject to change

Dimensions



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