

NEW DEVELOPMENTS

2 μ m Microchip lasers: passively and actively Q-switched models

OPTICAL PERFORMANCE RANGE:

- >Wavelengths: fixed at 1.95 μ m or **tunable** from 1.94 μ m to 1.96 μ m
- >**Single longitudinal mode** upon request
- >Energy per pulse: up to **270 μ J**
- >Pulse duration: 30ns...60ns
- >Repetition rate: fixed or tunable up to **5kHz**



Picture of the 2 μ m PQS laser prototype

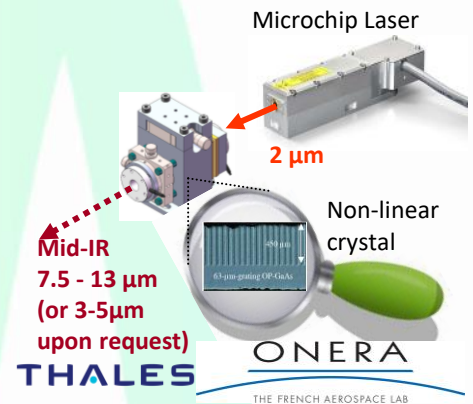
Mid-IR tunable OPO source (Optical Parametric Oscillator)

Our Optical Parametric Oscillator source converts the input signal from a 2 μ m pump laser into tunable Mid-IR beam using a non-linear crystal. We achieve **broad LWIR tunability (7.5-13 μ m)** based on Orientation-Patterned GaAs crystal.

The OPO source we offer is uniquely **compact**.

Option: additional **Optical Parametric Amplifier (OPA)** stage for a much higher output power.

Source developed in partnership with ONERA and Thales Research and Technology (project funded by DGA)



KEY FEATURES:

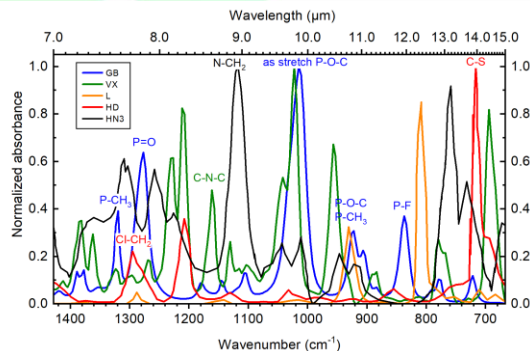
- >Wavelengths tunability: **7.5 to 13 μ m** or **3 to 5 μ m** upon request
- >**Single longitudinal mode**
- >**Real-time wavelength control with Spectrum Analyzer** included
- >Peak power: 5W; **up to 100W with the OPA option**
- >Repetition rate: fixed at 300Hz or 1kHz
- >Pulse duration: 30ns...50ns
- >**Compact source: ~297mm*210mm*80mm (~A4 footprint)**



Picture of the prototype of the Mid-IR OPO compact source (on the left) and its controller (on the right)

MAIN APPLICATIONS

- > Stand-off gas detection
- > Multi-species gas analysis
- > LIDAR applications
- > etc.



Example: spectral signatures of Toxic Chemical Agents in the LWIR wavelengths area

For any further information, please contact our sales team
Email: sales@teemphotonics.com / Phone: +33 (0)4 76 04 05 06