



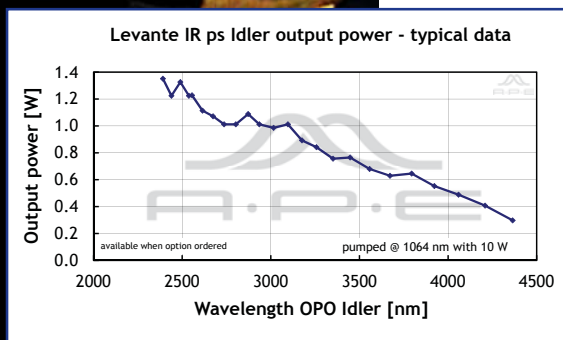
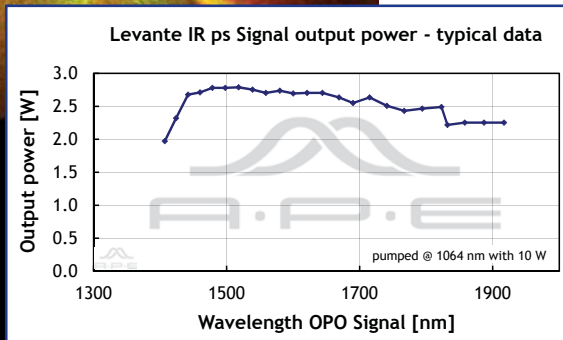
# Levante IR - ps version

The Levante IR ps is a synchronously pumped OPO (optical parametric oscillator) with a mode-locked picosecond laser emitting at 1064 nm as fixed wavelength pump source. The generation of the Signal and Idler pulses in a parametric process is jitter-free with respect to each other as well as to the pump pulse. The use of a fixed wavelength pump laser simplifies the pump laser architecture and delivers high output power.

The accessible wavelength range for the Signal output is 1390 ... 1920 nm and the wavelength range for the Idler output (optional) is 2390 ... 4500 nm. This allows for applications requiring tunable light in the IR for, e. g. vibrational spectroscopy.

The OPO utilizes a periodically poled FAN crystal as gain medium. This allows for fast tuning without the need for temperature tuning.

The Levante IR ps is a versatile narrow bandwidth light source for picosecond pulses. When combined with extra-cavity SHG (Second Harmonic Generation), THG (Third Harmonic Generation) and DFG (Difference Frequency Generation) of the HarmoniXX series, almost every wavelength from 250 nm up to 15  $\mu\text{m}$  can be generated.



- Output pulses perfectly synchronized in time
- Computer controlled wavelength tuning



pump laser not depicted

## Specifications

Wavelength range (Signal)	1390 ... 1920 nm
Output power (Signal)	> 2.0 W @ 1600 nm pumped at 10 W @ 1064 nm
Bandwidth	typ. 1 nm @ 1600 nm
Pulse width	typ. 6 ps @ 7 ps pump
Time bandwidth product	typ. 1.5
Pulse repetition rate	approx. 80 MHz (according to and equal to the repetition rate of the pump laser)
Idler wavelength range (optional)	2.39 ... 4.5 $\mu\text{m}$
Idler output power (optional)	> 750 mW @ 3 $\mu\text{m}$ pumped at 10 W @ 1064 nm

Integrated spectrometer for OPO Signal wavelength range

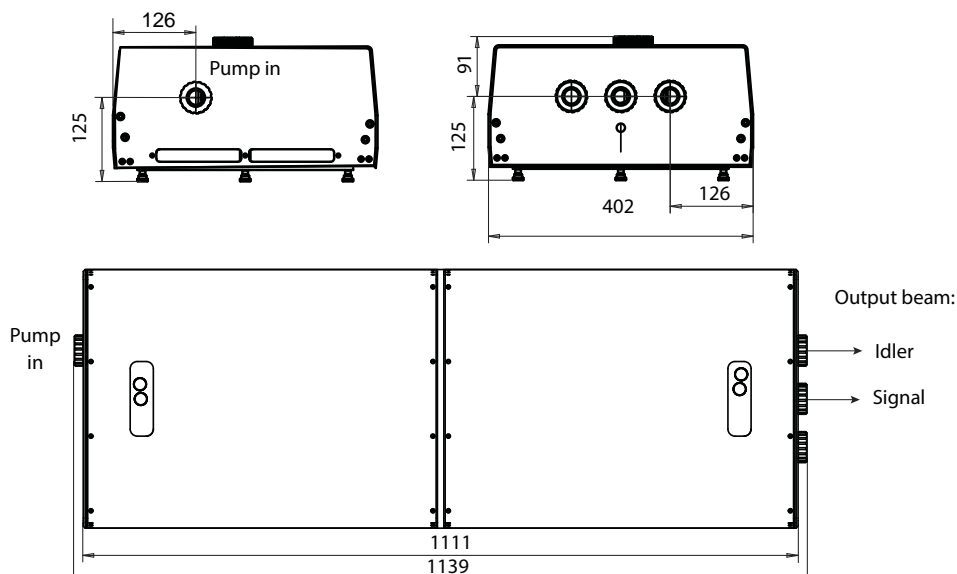
## Options

- Output of Idler beam
- Adaptation to other pump parameters

## Dimensions (in mm)

Control electronics: 267 x 180 x 312 (W x H x D)

Optical unit: 402 x 216 x 1139 (W x H x D)



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