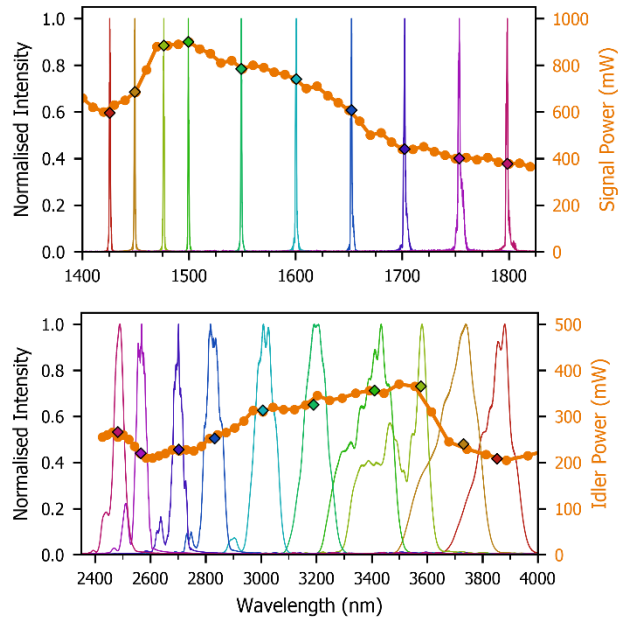




Tuneable Near-IR Picosecond Pulse Laser



DESCRIPTION

The Chromacity Auskerry is a near-IR continuously tuneable picosecond pulse laser. It consists of a fully integrated 1040nm pump source and optical parametric oscillator (OPO) delivering broad bandwidth coherent light across the 1.4 μm – 4.2 μm spectral region (7150 cm^{-1} – 2400 cm^{-1}).

The Chromacity Auskerry has two wavelength ranges (signal: 1.4 μm – 1.8 μm , and idler: 2.4 μm – 4.2 μm), delivered via separate free-space outputs. The 1040nm pump source is also available to the user from a third output. Optionally, the outputs can be externally fibre-coupled, simplifying system integration.

The output pulses are typically <3ps. The fully integrated pump, OPO and amplifier comes with an accompanying PSU, simplifying placement in a typical laboratory environment.

FEATURES

- Tuneable 1.4 μm – 4.2 μm centre wavelength
- Pulse duration <3ps typ.
- Average Output power
 - 1.4 μm – 1.8 μm : 400mW to 850mW typ.
 - 2.4 μm – 4.2 μm : 200mW to 350mW typ.
 - 1040nm: >2W typ.
- Repetition rate 100MHz
- Beam diameter
 - Signal: 1.5mm
 - Idler: 6.0mm
 - Pump: 1.0mm

APPLICATIONS

- Interrogation of photonics integrated circuits
- FTIR based stand-off detection
- Multi-species gas analysis
- Telecoms and quantum research
- Material characterisation
- Explosive detection

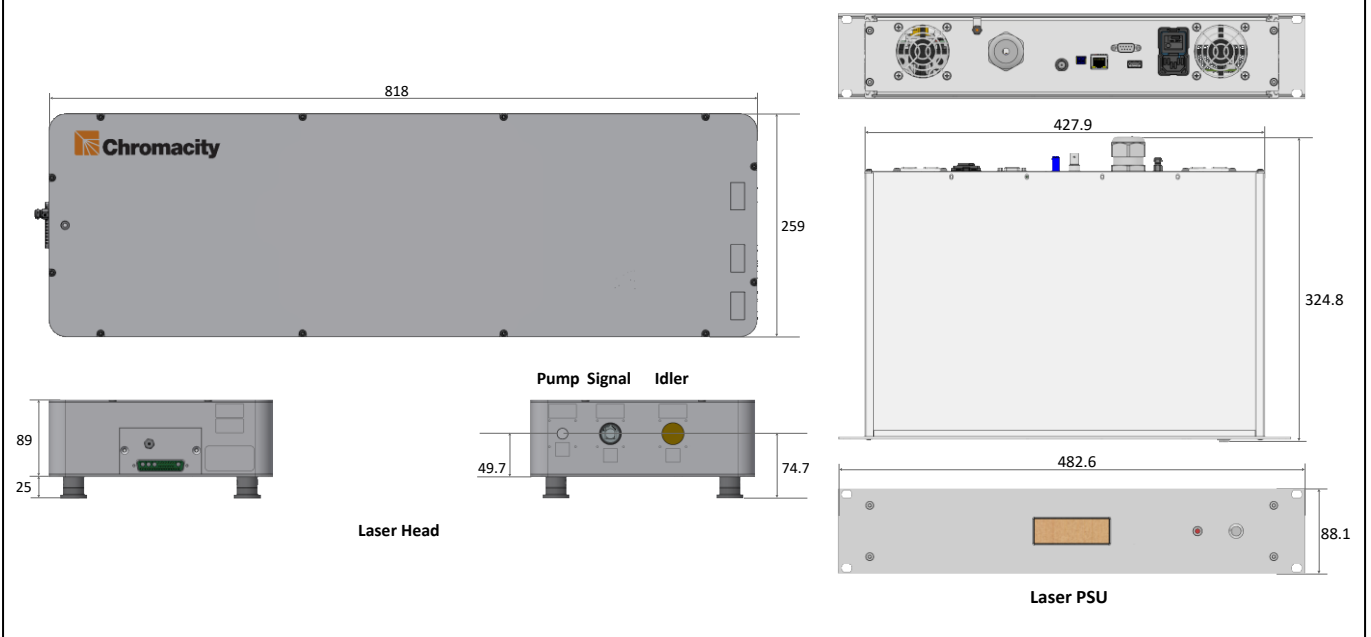


Tunable Near-IR Picosecond Pulse Laser

SPECIFICATIONS

| Parameter | Specification |
|---|--|
| Central Wavelength | Tunable 1.4µm – 4.2µm |
| Pulse Width | <3ps typ. (<5ps max) |
| Repetition Rate | 100MHz |
| Average Power | <ul style="list-style-type: none"> 1.4µm – 1.8µm: 400mW to 850mW typ. signal 2.4µm – 4.2µm: 200mW to 350mW typ. idler 1040nm: >2W typ. |
| Spatial Beam Profile | Single mode |
| Output Polarisation | Linear |
| Beam Ellipticity | Signal: 0.9 typ. (>0.8 min.) |
| Beam Diameter | <ul style="list-style-type: none"> Signal: 1.5mm, ±0.2mm Idler: 6.0mm, ±1mm Pump: 1.0mm, ±0.2mm |
| Beam Pointing Stability | <20µrad/°C |
| Long Term Power Stability | <1.0%/°C (24h) typ. |
| Laser settings and functions | Web browser via Wi-Fi, Ethernet or RS-232 |
| Laser diagnostics | Available from PC |
| Operating Temperature for Specified Performance | 21°C, ±3°C |
| System Options | Fibre-coupling |

SYSTEM DIMENSIONS (mm)



CONTACT

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