# TITAN

Broadly Tunable CW OPO-Based Laser System



## **Key Features**

- Broad tuning across 725 990 nm, 1150 1980 nm and 2300 4200 nm
- High output power with >5 W at peak of the range
- Excellent beam pointing stability with wavelength
- TEM<sub>oo</sub> spatial profile
- Hands-free operation with dedicated control software. Control drivers available
- Sealed, compact, and virtually maintenance-free
- Integrated spectrometer

# **Applications**

- Spectroscopy
- Metrology
- Sensing
- IR communications
- Microscopy
- Semiconductor research



The TITAN™ is an extraordinary CW OPO which provides seamless spectral coverage across the visible and IR wavelengths with unprecedented power.

Featuring five output ports, the TITAN™ delivers: 1) 1064 nm, 2) 725 - 990 nm, 3) 1150 - 1450 nm, 4) 1450 - 1980 nm and 5) 2300 - 4200 nm with a single source. Such a superior spectral coverage is provided with exceptional output powers across the range (>5 Watts at peak wavelength). This, together with the inherent high beam pointing stability, beam quality and power stability, make the TITAN™ an ideal source for spectroscopy, microscopy and sensing applications.

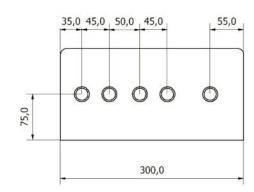
As a sealed and fully-automated system, it provides hands-free operation where any wavelength can be rapidly tuned by the click of a mouse via the dedicated control software. Control drivers are also available.

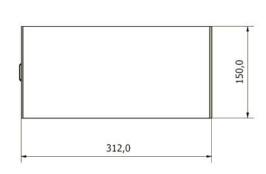
Virtually maintenance-free, this CW OPO system provides a compact, robust, user-friendly and versatile laser source for demanding applications in multiple industrial, sensing and scientific research.

### Specifications1

Output Characteristics	Titan SIDO	Titan SID1	Titan SID2
Tuning range			
Output 1	1450 - 1980 nm	1450 - 1980 nm	1450 - 1980 nm
Output 2	2300 - 4200 nm	2300 - 4200 nm	2300 - 4200 nm
Output 3		1150 - 1450 nm	1150 - 1450 nm
Output 4			725 - 990 nm
Output power			
Output 1	> 5 W at 1650 nm		
Output 2	> 5 W at 3000 nm		
Output 3 <sup>(2)</sup>	> 500 mW		
Output 4 <sup>(2)</sup>	> 500 mW		
Linewidth	< 100 MHz		
Beam diameter at 1650 nm	3.0 mm +/- 10%		
Beam diameter at 3000 nm	5.0 mm +/- 10%		
Spatial mode	$TEM_{00} M^2 \le 3$		
Beam pointing	< 40 µrad		
Signal noise at 1300 nm	< 8% rms		
Power stability	5%		
Polarization	Linear		
Size (W x L x H)	$312 \times 300 \times 150 \text{ mm} (12.6 \times 11.8 \times 5.9 \text{ inch})$		

#### Titan™ Dimensions





Dimensions in mm



<sup>(1)</sup> Specifications are subject to change without notice (2) At peak of pump and OPO tuning range