

OX92006 PC Control Fast Sweep Tunable Laser Source

Technical Specifications V1.00

Nov., 2013

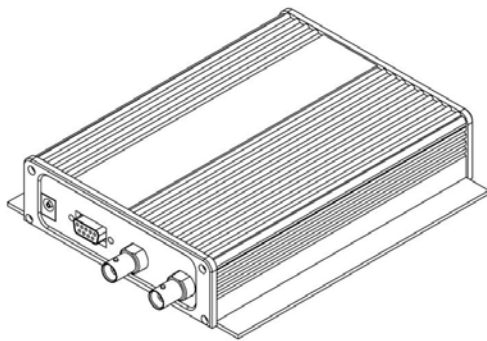


 **UC INSTRUMENTS CORP.**

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OX92006 PC Control Fast Sweep Tunable Laser Source

UC INSTRUMENTS' tunable laser source module (TLS) is a high optical power output tunable laser source engine for telecom testing instruments, fiber sensing systems, optical coherence image applications. The TLS module acts as a stand-alone tunable laser source engine, output high power optical wavelength tunable light and provide a wide wavelength range of light output for a wide testing and sensing system applications. Leveraging our proprietary micro-optic technology, UC INSTRUMENTS' TLS module features the following characteristics: (1) compact; (2) light-weight; (3) high optical power output; and (4) wide wavelength coverage. These characteristics of Optoplex's compact TLS engines are suitable for a variety of handheld, portable or bench-top tunable laser source applications. Equipped with a state-of-the-art internal wavelength reference, the TLS module can provide high power, precise wavelength laser output. It provides a novel active measuring optical spectrum method and fiber sensing tunable laser source. Because it does not require an expensive mechanical sweep system, the compact TLS module is a cost-effective alternative to other grating-based TLS engines. The TLS module communicates with a PC or an instrument motherboard via an RS232, USB or DPRAM interface. Optoplex's TLS module platform can be installed or co-packaged into existing testing instruments or fiber sensing system as a cost-efficient alternative to other scanning tunable laser source engines.

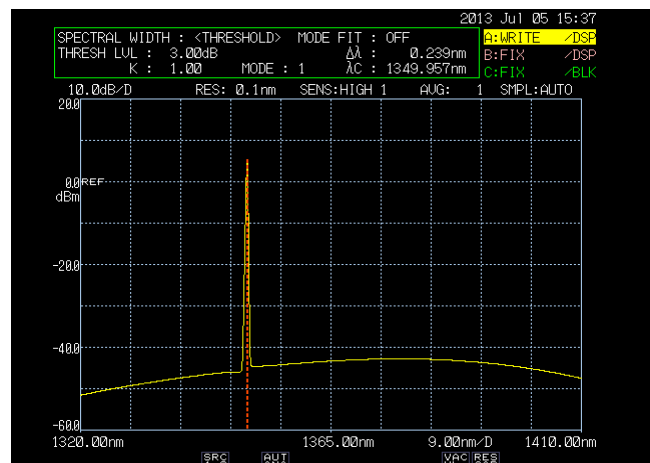


Applications

- Fiber Sensing System
- WDM PON System Field Installation
- Fiber Optical Components Testing
- Photonic Material Characterization
- Portable and Bench Top Testing Instruments
- Interferometer
- Optical Spectroscopy
- Biomedical Imaging

Key Features and Benefits

- C, C+L, O band wavelength continue tuning option
- High power output: +13 dBm
- Fast swept – speed up to 60 Hz
- Compact size, light weight
- RS232 communication port
- Software upgradeable
- Low system cost solution
- Build-in wavelength calibration
- Low noise



Product Data Sheet¹⁾

Parameter	Unit	C-Band	C+L Band	O-Band
Model Number	/	OX92006-C	OX92006-CL	OX92006-O
Wavelength range	<i>nm</i>	1527 to 1568	1525 to 1605	1265 to 1365
Wavelength (frequency) resolution	<i>pm</i>	5	5	5
Mode-hop free within tunable range	/	Y	Y	Y
Tuning speed (selectable)	<i>Hz</i>	15 / 30 / 60	15 / 30 / 60	15 / 30 / 60
Absolute wavelength accuracy	<i>nm</i>	$\leq \pm 0.05$	$\leq \pm 0.05$	$\leq \pm 0.05$
Relative wavelength accuracy	<i>pm</i>	$\leq \pm 5$	$\leq \pm 10$	$\leq \pm 10$
Wavelength repeatability	<i>pm</i>	$\leq \pm 5$	$\leq \pm 5$	$\leq \pm 5$
Wavelength stability (typical, over 24 hours)	<i>pm</i>	$\leq \pm 5$	$\leq \pm 5$	$\leq \pm 5$
Line-width (typical)	<i>nm</i>	≤ 0.10	≤ 0.20	≤ 0.20
Output power	<i>dBm</i>	$\geq +13$	$\geq +13$	$\geq +13$
Power stability (1 hour)	<i>dB</i>	$\leq \pm 0.02$	$\leq \pm 0.02$	$\leq \pm 0.02$
Power stability (24 hours)	<i>dB</i>	$\leq \pm 0.05$	$\leq \pm 0.05$	$\leq \pm 0.05$
Power flatness versus wavelength	<i>dB</i>	$\leq \pm 1.0$	$\leq \pm 1.0$	$\leq \pm 1.0$
Power repeatability (typical)	<i>dB</i>	$\leq \pm 0.02$	$\leq \pm 0.02$	$\leq \pm 0.02$
Side-mode suppression ratio, SMSR	<i>dB</i>	≥ 50	≥ 50	≥ 50
Electrical Interface ²⁾	/	RS232	RS232	RS232
Dimensions (H x W x D)	<i>mm</i>	183.5x147.6x36.5	183.5x147.6x36.5	183.5x147.6x36.5
Weight	<i>kg</i>	0.95	0.95	0.95

Notes

- 1) Custom-design available upon request
- 2) Other interfaces, such as USB and DPRAM, are available. Contact sales@ucinstruments.com for more details
- 3) Specs maybe changed without notice

Contact Information

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Product specifications and descriptions in this documentation subject to change without notice.

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