

Full-band High Performance Tunable Laser System

Full-band TSL

The Full-band TSL is a full-band, high performance tunable laser system that covers the ultra-wide tuning range of 1260 to 1680nm (O-band to U-band). The system combines up to four Santec tunable lasers (TSL-550 and TSL-710) with an optical switch module (OSU-100) and control software. The complete Full-band TSL has excellent cost performance, high wavelength accuracy and fast sweeping for use in both R&D and production environments. The Full-band TSL can be easily controlled via GPIB and USB on PC using the custom GUI.

The Full-band TSL can be configured with Santec's Swept Test system hardware to provide WDL measurements over the entire tuning range from 1260 to 1680nm.



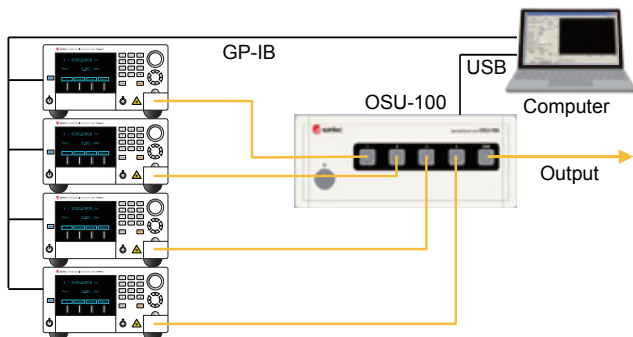
Features

- ▶ Wide wavelength range 1260-1680nm
- ▶ Mode-hop-free wavelength sweeps
- ▶ 100nm/s sweep speed
- ▶ Easy and automatic operation by exclusive

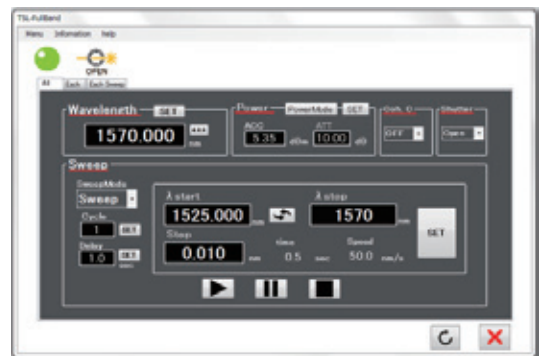
Applications

- ▶ Optical component characterization
- ▶ Fiber optic transmission testing
- ▶ Photonic material characterization
- ▶ Optical spectroscopy

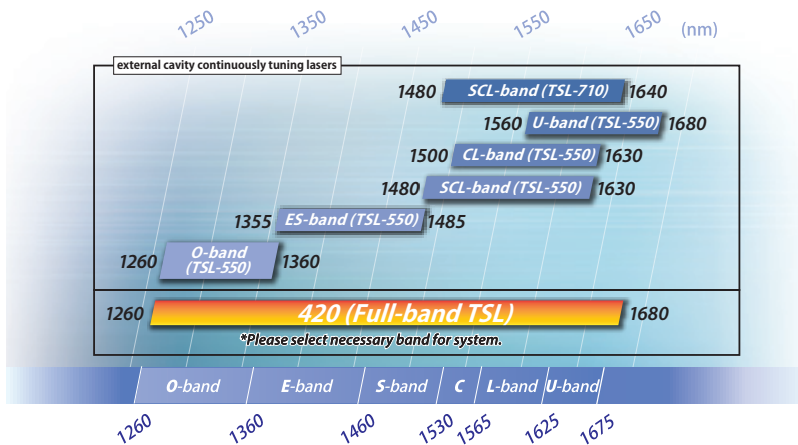
Typical configuration



Control software



Wavelength range



Specifications

Category	Parameter	Unit	Performance
Tunable Laser	All Specifications	-	Please refer to the TSL-550 or TSL-710 catalog for full specifications
Optical Switch OSU-100	Wavelength Tuning Range	nm	1260-1680
	Maximum Tuning Range	nm	420
	Insertion Loss ^{*1}	dB	<3 (typ. 1.5)
	Insertion Loss Stability ^{*2} (typ.)	dB	±0.01
	Repeatability (typ.)	dB	±0.01
	Crosstalk (typ.)	dB	-55
	Maximum Input Power (Optical)	mW	300
	Return Loss (typ.)	dB	>50
	Lifetime (typ.)	cycle	> 100,000,000
	Switching Time (typ.)	ms	5
	Optical Fiber	-	PMF ^{*3}
	Optical Output Connector	-	FC / APC or SC / APC
	Communication	-	USB (USB 2.0 High Speed)
	Operating	Temperature	°C
	Humidity	%	< 80 (non-condensing)
Power Supply	-	-	AC 100-240V±10%, 50 / 60Hz
Dimensions (W x H x D)	-	mm	210 x 88 x 350
Weight	-	kg	3.1

*All specifications are quoted after 1 hour warm-up period.

*1: From 1260-1630nm

*2: For period of 1 hour. Within ± 0.5°C.

*3: Polarization extinction ratio 17 dB (typical). Polarization axis in alignment with connector key.

Ordering Code

Tunable Laser

Ordering code can be found on the following brochures:

1. TSL 550
2. TSL 710
3. TSL 770

Optical Switch

OSU-100 - - -

A B C

Connector Polish : AP : APC (Angled PC)

Connector Type : F : FC / S : SC

Fiber : P : PMF

www.santec.com E-Mail : sales@santec.com

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SANTEC CORPORATION

5823 Ohkusa-Nenjozaka, Komaki, Aichi 485-0802, Japan Tel: +81-568-79-3536 Fax: +81-568-79-1718

SANTEC U.S.A. CORPORATION

433 Hackensack Ave., Hackensack, NJ, 07601, U.S.A. Toll Free: +1-800-726-8321 (santec-1) Tel: +1-201-488-5505 Fax: +1-201-488-7702

SANTEC EUROPE LIMITED

Grand Union Studios, 332 Ladbrooke Grove, London, W10 5AD, U.K. Tel: +44-20-3176-1550

SANTEC (SHANGHAI) Co., Ltd

11F Room E, Hua Du Bldg, No.838 Zhangyang Road, Pudong, Shanghai 200122 China Tel: +86-21-58361261, +86-21-58361262 Fax: +86-21-58361263