

Full-band TSL

Full-band Tunable Laser System



Features

- Wide wavelength range 1240 to 1680 nm
- Mode-hop-free wavelength sweeps
- 200 nm/s sweep speed
- Easy and automatic operation by exclusive



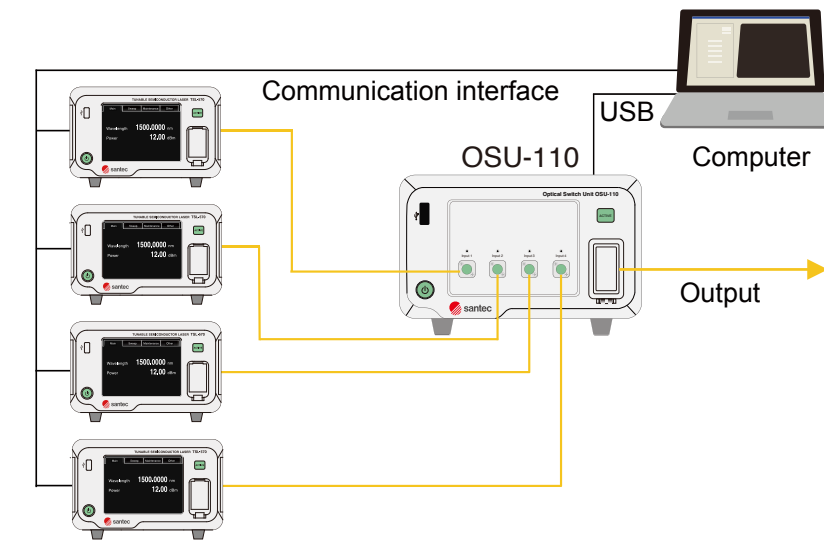
Applications

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

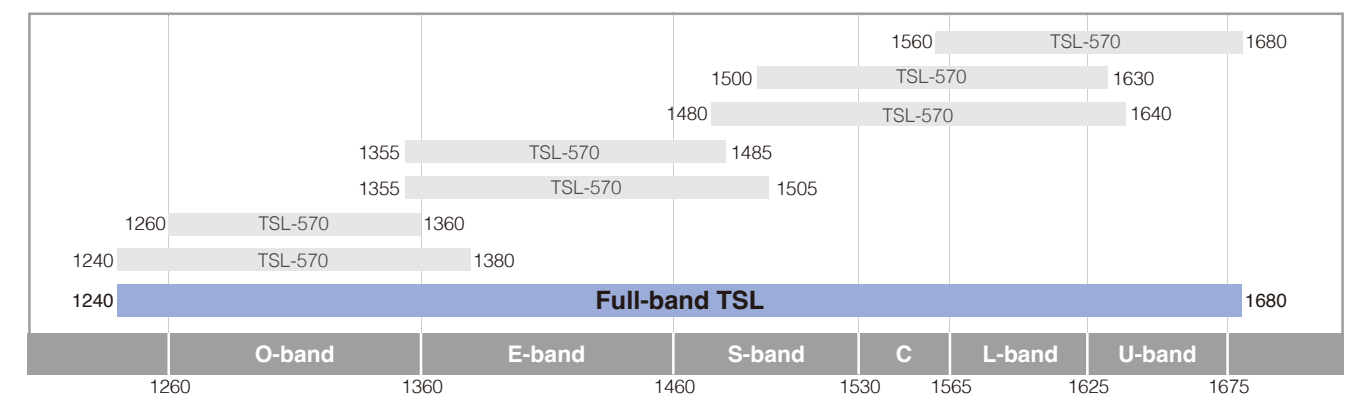
Product Overview

The full-band TSL is a full-band, high performance tunable laser system that covers a ultra-wide tuning range of 1240 to 1680 nm (O-band to U-band). The system combines up to four Santec tunable lasers (TSL-570) with an optical switch module (OSU-110) and a 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, USB and Ethernet on the PC. The full-band TSL can be configured with Santec's Swept Test System hardware to provide WDL measurements over the entire tuning range from 1240 to 1680 nm.

Typical Configuration



Wavelength Range



Ordering Scheme & Instructions

Full-band TSL Optical / Electrical Specifications

Tunable Laser TSL-570

Please refer to the [TSL-570](#) chapter for full specifications

Optical Switch OSU-110

Parameter	Unit	Performance
Wavelength Tuning Range	nm	1240 to 1680
Full Tuning Range	nm	440
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	> 45
Lifetime (typ.)	cycle	No wear out
Switching Time (typ.)	ms	10
Optical Fiber	-	PMF ³
Optical Output Connector	-	FC / APC or SC / APC
Communication	-	GP-IB (IEEE 488.2), USB, Ethernet
Operating		
Temperature	°C	15 to 35
Humidity	%	< 80 (non-condensing)
Power Supply	-	AC100 to 120 / 200 to 240 V ±10 %, 50/60 Hz
Dimensions (W x H x D)	mm	210 x 130 x 350
Weight	kg	3.5

Notes:

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

¹ From 1260 to 1630 nm.

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

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

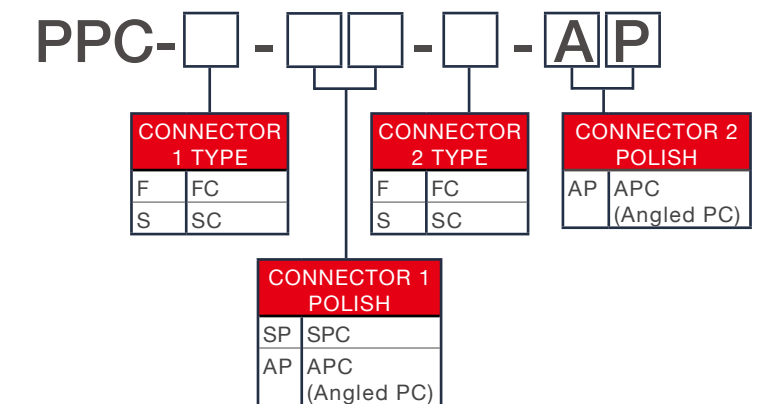
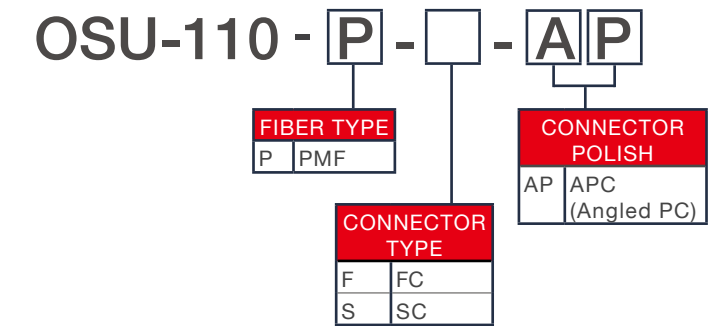
1. Configure Full-band TSL Tunable Laser System

Tunable Laser - Ordering code can be found on the [TSL-570](#) chapter.

Optical Switch



PMF Patch cord - (Tunable Laser (TSL) <---> OSU-110)
Please select the ordering code for PMF patch cord if purchasing the OSU-110. Regarding the connector selection, select the same options for one port as the TSL code ("A" and "B") and the other port as the OSU-110 ("C" and "D"). Fiber length 1.0 m, Fiber jacket φ2.0 mm.



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