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Data Sheet

August 13, 2026

SANTEC

Santec TSL210 Tunable Laser

Key Features - 80-100 nm windows in 1260-1650 nm - Resolution 0.01 nm; fine tune less than 0.001 nm / 10 GHz (0.08 nm typ) - Accuracy 0.1 nm; repeatability 0.05 nm; stability 0.01 nm (1 hour) - Peak greater than 8 mW normal / greater than 10 mW high power - Linewidth less than 1 MHz off; 1-500 MHz coherence on; SSR 45 dB (50 dB typ) - GPIB IEEE-488 and RS-232; 210 × 110 × 370 mm; 6 kg Technical Specifications Model: TSL-210 Manufacturer: Santec Instrument Type: Benchtop Tunable Semiconductor Laser Series: TSL-210 / TSL-220 Alias: TSL-210; TSL210 Example Tuning Range: 1530 to 1610 nm Selectable Windows: any 80-100 nm within 1260 to 1650 nm (datasheet also 1260-1640 nm max greater than 80 nm) Example Windows: 1260-1360, 1350-1450, 1500-1590, 1520-1630, 1530-1610, 1540-1650 nm Resolution: 0.01 nm; less than 0.



MODEL	CALIBRATION
Santec TSL210	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
TSL210	https://aumictechlabs.com/products/tsl210-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Santec TSL-210 is a tunable laser source engineered for precision optical testing across telecommunications and photonics applications. It delivers selectable wavelength windows spanning 1260 to 1650 nm with 0.01 nm resolution, 0.1 nm accuracy, and 0.05 nm repeatability. Output power typically exceeds 8 mW with 8% accuracy and 0.2 dB flatness. The instrument combines fast wavelength tuning at 170 ms/nm with variable coherence control, adjustable linewidth from 1 to 500 MHz, and an optional tracking filter for ASE noise suppression. High-

power configurations and a pulse variant (30 ps duration, 2.5 GHz repetition rate) extend utility across demanding R&D and production environments.

Technical Specifications

Wavelength Tuning
Range: Selectable windows 1260–1650 nm; TSL-210F offers continuous 1260–1630 nm (370 nm)
Tuning bandwidth: 80–100 nm per window; 370 nm for TSL-210F
Resolution: 0.01 nm (0.001 nm with fine tuning)
Accuracy: 0.1 nm
Repeatability: 0.05 nm (n=50, center wavelength)
Stability: 0.01 nm over 1 hour (center wavelength)
Fine tuning: 10 GHz or 0.08 nm typical
Tuning speed: 170 ms/nm
Output Power Maximum: >8 mW typical; >10 mW available in select configurations
High-power option: Reduces to 80% of specification with integrated filter
Accuracy: 8%
Repeatability: 0.01 dB (n=50, +6 dBm)
Stability: 0.01 dB over 1 hour (+6 dBm)
Flatness: 0.2 dB (+6 dBm)
Spectral Characteristics
Linewidth: Maximum 1 MHz (coherence control OFF); 1–500 MHz adjustable (coherence control ON)
ASE noise: Optional tracking filter available for high SNR
Modulation Range: 0–10 kHz at –3 dBm
High-frequency modulation supported
Pulse Variant (TSL-210)
Duration: 80 ns across full tuning band

Key Features
Fully variable coherence control as standard
Multiple selectable wavelength windows or continuous 370 nm tuning
Integrated tracking filter option for reduced ASE noise
High-power output configurations available
Sub-nanosecond pulse operation with GHz repetition rates

Typical Applications
Component characterization and wavelength-dependent testing
Optical filter and DWDM system validation
Research across C-, L-, and extended bands
Production wavelength verification and signal-to-noise ratio assessment

Compatibility & Integration
The TSL-210 supports high-frequency modulation with configurable input terminals and level requirements detailed in operation documentation.

Features & description

From manufacturer datasheet

Features

- 80-100 nm windows in 1260-1650 nm
- Resolution 0.01 nm; fine tune less than 0.001 nm / 10 GHz (0.08 nm typ)
- Accuracy 0.1 nm; repeatability 0.05 nm; stability 0.01 nm (1 hour)
- Peak greater than 8 mW normal / greater than 10 mW high power
- Linewidth less than 1 MHz off; 1-500 MHz coherence on; SSR 45 dB (50 dB typ)
- GPIB IEEE-488 and RS-232; 210 × 110 × 370 mm; 6 kg

TSL210 Characteristics / Specifications

PARAMETER	VALUE
Model	TSL-210
Manufacturer	Santec
Instrument Type	Benchtop Tunable Semiconductor Laser
Series	TSL-210 / TSL-220
Alias	TSL-210; TSL210
Example Tuning Range	1530 to 1610 nm
Selectable Windows	any 80-100 nm within 1260 to 1650 nm (datasheet also 1260-1640 nm max greater than 80 nm)
Example Windows	1260-1360, 1350-1450, 1500-1590, 1520-1630, 1530-1610, 1540-1650 nm
Resolution	0.01 nm; less than 0.001 nm with fine tuning
Accuracy	0.1 nm
Repeatability	0.05 nm (n=50 at center wavelength)
Stability Wavelength	0.01 nm (1 hour at center)
Fine Tuning Range	10 GHz (0.08 nm typical)
Tuning Speed	170 ms/nm
Peak Power Normal 40 nm	greater than 8 mW
Peak Power High Option	greater than 10 mW
Minimum Power 40 nm	6 mW class / 4 mW full-window class (spec table)
Power Accuracy	5 percent
Power Repeatability	0.01 dB (n=50, center, +6 dBm)
Power Stability	0.01 dB (1 hour, center, +6 dBm)
Flatness	0.2 dB at +6 dBm
Linewidth Off	1 MHz max (coherence control OFF)
Linewidth On	1 to 500 MHz (coherence control ON)
SSR	45 dB min, 50 dB typical

PARAMETER	VALUE
Optical Connector	FC
Optical Fiber	SMF 10/125
Connector Polish	SPC (APC optional)
GPIB	IEEE-488
RS2	yes (SIF front)
LF Modulation	0 to 10 kHz at -3 dBm; input -1 to 1 V; 100 mA/V; 4.7 kOhm
Supply	AC 100/120/230/240 V, 50/60 Hz
Power Consumption	35 VA at 100/120 V; 55 VA at 230/240 V
Max Power Consumption	80 W (40 W typical)
Laser Safety Class	3A
Dimensions	210 × 110 × 370 mm excluding projection
Weight	6 kg
Operating Temperature	20 to 30 C
Operating Humidity	80 percent max no condensation
Storage Temperature	10 to 40 C
APC	automatic power control
CP10 Pad	optional handheld; 128 wavelength/power combinations Notes Specs from Santec TSL-210 datasheet and TSL-210 operation manual specification table. Confirm the 6-digit wavelength window, SMF/PMF, SPC/APC, and normal versus high-power option on the order code.
Bandwidth	3 nm, 0.24 nm typical resolution
Linewidth	less than 1 MHz off; 1-500 MHz coherence on; SSR 45 dB (50 dB typ) - GPIB IEEE-488 and RS-232; 210 × 110 × 370 mm; 6 kg
Humidity	80 percent max no condensation

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	10 to 40 C
Operating temperature	20 to 30 C
Operating Temperature	20 to 30 C
Humidity	80 percent max no condensation
Operating Humidity	80 percent max no condensation
APC	automatic power control
CP10 Pad	optional handheld; 128 wavelength/power combinations Notes Specs from Santec TSL-210 datasheet and TSL-210 operation manual specification table. Confirm the 6-digit wavelength window, SMF/PMF, SPC/APC, and normal versus high-power option on the order code.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	TSL-210
Manufacturer	Santec
Instrument Type	Benchtop Tunable Semiconductor Laser
Series	TSL-210 / TSL-220
Alias	TSL-210; TSL210
Example Tuning Range	1530 to 1610 nm
Selectable Windows	any 80-100 nm within 1260 to 1650 nm (datasheet also 1260-1640 nm max greater than 80 nm)
Example Windows	1260-1360, 1350-1450, 1500-1590, 1520-1630, 1530-1610, 1540-1650 nm
Resolution	0.01 nm; less than 0.001 nm with fine tuning
Accuracy	0.1 nm
Repeatability	0.05 nm (n=50 at center wavelength)
Stability Wavelength	0.01 nm (1 hour at center)
Fine Tuning Range	10 GHz (0.08 nm typical)
Tuning Speed	170 ms/nm
Peak Power Normal 40 nm	greater than 8 mW
Peak Power High Option	greater than 10 mW
Minimum Power 40 nm	6 mW class / 4 mW full-window class (spec table)
Power Accuracy	5 percent
Power Repeatability	0.01 dB (n=50, center, +6 dBm)
Power Stability	0.01 dB (1 hour, center, +6 dBm)
Flatness	0.2 dB at +6 dBm
Linewidth Off	1 MHz max (coherence control OFF)
Linewidth On	1 to 500 MHz (coherence control ON)
SSR	45 dB min, 50 dB typical
Optical Connector	FC

PARAMETER	VALUE
Optical Fiber	SMF 10/125
Connector Polish	SPC (APC optional)
GPiB	IEEE-488
RS232	yes (SIF front)
LF Modulation	0 to 10 kHz at -3 dBm; input -1 to 1 V; 100 mA/V; 4.7 kOhm
Supply	AC 100/120/230/240 V, 50/60 Hz
Power Consumption	35 VA at 100/120 V; 55 VA at 230/240 V
Max Power Consumption	80 W (40 W typical)
Laser Safety Class	3A
Dimensions	210 x 110 x 370 mm excluding projection
Weight	6 kg
Operating Temperature	20 to 30 C
Operating Humidity	80 percent max no condensation
Storage Temperature	10 to 40 C

Optional OVA: 0 to 20 dB, 0.04 dB typical resolution
Optional OTF: -3 dB bandwidth 3 nm, 0.24 nm typical resolution
APC: automatic power control
CP10 Pad: optional handheld; 128 wavelength/power combinations

Notes
Specs from Santec TSL-210 datasheet and TSL-210 operation manual specification table. Confirm the 6-digit wavelength window, SMF/PMF, SPC/APC, and normal versus high-power option on the order code.

Laser Safety

Laser safety class 3A. TSL-220 is the related high-accuracy/OTF/OVA compact sibling. Applications DWDM component, AWG, fiber-grating, and EDFA test; production inspection; R&D tunable source in O/E/S/C/L windows; coherence-control interferometry. Key Features - 80-100 nm windows in 1260-1650 nm - Resolution 0.01 nm; fine tune less than 0.001 nm / 10 GHz (0.08 nm typ) - Accuracy 0.1 nm; repeatability 0.05 nm

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.