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Data Sheet

August 3, 2026

SANTEC

Santec OTF-930 Optical Tunable Filter

The Santec OTF-930 is an optical tunable filter designed for precision wavelength selection and control in optical systems. It features a wide tuning range, narrow bandwidth, and high selectivity, making it suitable for applications such as optical component testing, spectral shaping, and wavelength-division multiplexing (WDM) systems. Its user-friendly interface and solid design ensure reliable performance in demanding laboratory and industrial environments.



MODEL

Santec OTF-930

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

OTF-930

LISTING

<https://aumictechlabs.com/products/otf-930-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Santec OTF-930 is a polarization-independent optical tunable filter employing Linear Sliding technology for precise wavelength selection across the C-band. It delivers continuous tuning from 1530–1610 nm with 0.01 nm resolution, wavelength accuracy better than ± 0.2 nm, and repeatability within ± 0.1 nm. The filter features a Gaussian spectral shape with typical -3 dB bandwidth of 5.5 ± 0.1 nm (single-stage) or 0.9 ± 0.1 nm (dual-stage configurations), insertion loss under 2.9 dB, and exceptional polarization stability: PDL < 0.2 dB and PMD < 0.1 ps. Return loss exceeds 45 dB. Maximum input power rating is +20 dBm. When paired with a broadband source, the OTF-930 functions as a tunable light source with output power ranging from -20 to -30 dBm in standard configurations. Available in single, dual, and triple-stage filter structures (08-S1, 08-S2, 12-S2, 03-S2) with FC/PC or SC/SPC optical connectors. Technical Specifications Tuning

Range: 1530–1610 nm Wavelength Resolution: 0.01 nm Wavelength Accuracy: $< \pm 0.2$ nm Wavelength Repeatability: $< \pm 0.1$ nm Filter Bandwidth (-3 dB): 5.5 ± 0.1 nm typical (single-stage); 0.9 ± 0.1 nm typical (dual-stage) Insertion Loss: < 2.9 dB maximum (single-stage); < 2.5 dB maximum (dual-stage) Polarization Dependent Loss: < 0.2 dB Polarization Mode Dispersion: 45 dB Maximum Input Power: +20 dBm Output Power (tunable source mode): -20 to -30 dBm Power Supply: AC 100–240 V, 50/60 Hz Power Consumption: 35 VA @ 230–240 V; 30 VA @ 100–120 V Dimensions: 210 × 80 × 300 mm Weight: 4 kg Operating Temperature: 20–30 °C Operating Humidity: $< 80\%$ RH (non-condensing) Key Features Configurable as single (S1), dual (S2), or triple-stage (S3) filter GPIB (IEEE-488) and RS-232C control interfaces FC/PC and SC/SPC optical connector options Low PDL ensures minimal signal degradation in polarization-sensitive systems Typical Applications ASE noise suppression in optical amplifiers Wavelength channel selection in WDM systems Optical component characterization and testing Spectral shaping for signal conditioning Incoherent light source configuration Compatibility & Integration Programmable via GPIB or RS-232C with selectable addresses (00–30). Operates within standard laboratory temperature and humidity ranges. Accepts broadband optical sources to function as a wavelength-selectable light source.

Features & description

From manufacturer datasheet

Features

- Tuning range options: 1530–1610 nm (std); 1500–1630 nm (bandwidth type 05 only); 1270–1350 nm (bandwidth type 12 only) • Wavelength resolution: 0.01 nm • Accuracy: $< \pm 0.1$ nm (typical); $< \pm 0.15$ nm (type 24); $< \pm 0.2$ nm (type 50) • Repeatability: $< \pm 0.05$ nm (n=50 at slider center); $< \pm 0.1$ nm (type 50)
- PDL (SMF): < 0.2 dB (structures S2 and S3); PMD < 0.1 ps • Return loss: > 45 dB; max input: +20 dBm • Power monitor relative accuracy: $< \pm 0.1$ dB (–20 to +10 dBm) • Filter structures: S1 (1 stage) / S2 (2 stage) / S3 (3 stage) • Bandwidth types: 03, 04, 06, 08, 12, 24, 50, 05 • Connectors: FC or SC; polish SPC or APC; fiber SMF or PMF • GPIB & RS-232C; AC 100–240 V; 210 × 80 × 300 mm; 4 kg

OTF930 Key Specifications

PARAMETER	VALUE
Tuning range options	1530–1610 nm (std); 1500–1630 nm (bandwidth type 05 only); 1270–1350 nm (bandwidth type 12 only)
Wavelength resolution	0.01 nm
Accuracy	< ±0.1 nm (typical); < ±0.15 nm (type 24); < ±0.2 nm (type 50)
Repeatability	< ±0.05 nm (n=50 at slider center); < ±0.1 nm (type 50)
PDL (SMF)	< 0.2 dB (structures S2 and S3); PMD < 0.1 ps
Return loss	> 45 dB; max input: +20 dBm
Power monitor relative accuracy	< ±0.1 dB (–20 to +10 dBm)
Filter structures	S1 (1 stage) / S2 (2 stage) / S3 (3 stage)
Bandwidth types	03, 04, 06, 08, 12, 24, 50, 05
Connectors	FC or SC; polish SPC or APC; fiber SMF or PMF

OTF930 Characteristics / Specifications

PARAMETER	VALUE
Resolution	0.01 nm
Accuracy	< ±0.1 nm; < ±0.15 nm (24); < ±0.2 nm (50)
Repeatability	< ±0.05 nm; < ±0.1 nm (50)
Temperature Stability	2 pm/°C class (OEM table) Filter Selection Examples (OEM datasheet, typ.)
Type 03 S1/S2/S	−3 dB BW 0.4/0.3/0.25 ±0.1 nm; −20 dB <3.8/<1.5/<1.2 nm; IL 3.5/6/7.5 dB
Type 08 S1/S2/S	−3 dB BW 0.95/0.65/0.5 ±0.1 nm; −20 dB <9.8/<3.0/<2.2 nm; IL 2/3/3.5 dB
Type 50 S	−3 dB BW 5.5 ±1.0 nm; −20 dB <60 nm (typ.); IL 2.9 dB (PMF: IL increases by 1.0 dB; PER typ. 20 dB) Environmental / Power
Operating Temperature	20–30 °C
Humidity	< 80% RH non-condensing
Power	30 VA @ 100–120 V; 35 VA @ 230–240 V; 50/60 Hz
Dimensions	210 × 80 × 300 mm (W×H×D); Weight: 4 kg Standard Operating Conditions OEM optical specs at stated conditions; confirm filter type code on rear label before comparing to tables. Operational Notes Dual internal filter elements provide 80 nm seamless tuning (two × ~40 nm). Cascading stages increases isolation with limited IL penalty per OEM design intent.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	20–30 °C
Operating Temperature	20–30 °C
Humidity	< 80% RH non-condensing
Power	30 VA @ 100–120 V; 35 VA @ 230–240 V; 50/60 Hz
Dimensions	210 × 80 × 300 mm (W×H×D); Weight: 4 kg Standard Operating Conditions OEM optical specs at stated conditions; confirm filter type code on rear label before comparing to tables. Operational Notes Dual internal filter elements provide 80 nm seamless tuning (two × ~40 nm). Cascading stages increases isolation with limited IL penalty per OEM design intent.

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	OTF-930
Manufacturer	Santec
Instrument Type	Polarization-Independent Optical Tunable Filter
Alias	OTF-930
Wavelength Characteristics	
Wavelength Characteristics	
PARAMETER	VALUE
Resolution	0.01 nm
Accuracy	< ±0.1 nm; < ±0.15 nm (24); < ±0.2 nm (50)
Repeatability	< ±0.05 nm; < ±0.1 nm (50)
Temperature Stability	2 pm/°C class (OEM table)
Filter Selection Examples (OEM datasheet, typ.)	
Specifications	
PARAMETER	VALUE
Type 03 S1/S2/S3	-3 dB BW 0.4/0.3/0.25 ±0.1 nm; -20 dB <3.8/<1.5/<1.2 nm; IL 3.5/6/7.5 dB
Type 08 S1/S2/S3	-3 dB BW 0.95/0.65/0.5 ±0.1 nm; -20 dB <9.8/<3.0/<2.2 nm; IL 2/3/3.5 dB
Type 50 S1	-3 dB BW 5.5 ±1.0 nm; -20 dB <60 nm (typ.); IL 2.9 dB
(PMF: IL increases by 1.0 dB; PER typ. 20 dB)	
Environmental / Power	
Environmental / Power	
PARAMETER	VALUE
Operating Temperature	20-30 °C
Humidity	< 80% RH non-condensing

PARAMETER	VALUE
Power	30 VA @ 100–120 V; 35 VA @ 230–240 V; 50/60 Hz
Dimensions	210 × 80 × 300 mm (W×H×D); Weight: 4 kg

Standard Operating Conditions
OEM optical specs at stated conditions; confirm filter type code on rear label before comparing to tables.

Operational Notes
Dual internal filter elements provide 80 nm seamless tuning (two × ~40 nm). Cascading stages increases isolation with limited IL penalty per OEM design intent.

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

Aumictech

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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.