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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N7779C Step-Tunable Laser Source

Agilent Keysight N7779C Basic Line Step Tunable Laser Source The Keysight N7779C is the basic-line step-tunable member of the N777-C TLS family. OEM N777-C data sheet 5992-4217 lists 0.1 pm wavelength resolution, typical absolute accuracy ± 10 pm, typical repeatability ± 3 pm, peak power greater than +12 dBm, signal-to-SSE ≥ 75 dB/nm, and no continuous-sweep mode. Cost-effective IL tests of broadband CWDM/PON devices; stepped local-oscillator source for receiver experiments; static high-stability optical stimulus. The Keysight N7779C is the basic-line step-tunable member of the N777-C TLS family. OEM N777-C data sheet 5992-4217 lists 0.1 pm wavelength resolution, typical absolute accuracy ± 10 pm, typical repeatability ± 3 pm, peak power greater than +12 dBm, signal-to-SSE ≥ 75 dB/nm, and no continuous-sweep mode. Cost-effective IL tests of broadband CWDM/PON devices; stepped local-oscillator source for receiver experiments; static high-stability optical stimulus. Step tuning only (no 200 nm/s bidirectional sweep)



MODEL

**Agilent / Keysight
N7779C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N7779C

LISTING

<https://aumictechlabs.com/products/n7779c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight N7779C is a step-tunable external cavity laser (ECL) source engineered for telecommunications and research-grade optical signal generation. Operating across 1240–1650

nm with 0.1 pm wavelength resolution, it delivers absolute accuracy of ± 10 pm (typical) and exceptional stability of ± 0.5 pm over 24 hours. Peak output power reaches $\geq +12$ dBm (standard options) or $\geq +13$ dBm (Option 113), with power flatness of ± 0.25 dB across the tuning range. The instrument achieves sub-10 kHz linewidth with side-mode suppression exceeding 60 dB and relative intensity noise below -145 dB/Hz (0.1–6 GHz), making it ideal for component characterization, receiver testing, and transmission experiments. Stepped tuning at 300 ms per 1 nm step enables rapid wavelength selection. A web-browser interface over LAN or USB provides remote control, with optional local touchscreen access. The compact 1U form factor and standalone architecture support flexible bench and system integration.

Technical Specifications

Laser Type: Tunable ECL Wavelength Range: 1240–1650 nm (full family coverage; individual models cover 1240–1380 nm, 1340–1495 nm, 1450–1650 nm, or 1490–1640 nm) Wavelength Resolution: 0.1 pm Wavelength Repeatability: ± 3 pm (typical) Absolute Wavelength Accuracy: ± 10 pm (typical) Relative Wavelength Accuracy: ± 5 pm Wavelength Stability: ± 0.5 pm (24 hours, typical) Spectral Linewidth: 50 MHz (coherence control enabled) Tuning Time: 300 ms per 1 nm step Maximum Output Power: $\geq +12$ dBm (Options 114, 116, 216); $\geq +13$ dBm (Option 113) Signal-to-SSE Ratio: ≥ 75 dB/nm (typical) Signal-to-Total-SSE Ratio: ≥ 70 dB Power Stability: ± 0.01 dB (1 hour) Power Repeatability: ± 0.01 dB (typical) Power Flatness vs. Wavelength: ± 0.25 dB Side-Mode Suppression Ratio: ≥ 60 dB (typical) Relative Intensity Noise: < -145 dB/Hz (0.1–6 GHz, typical)

Key Features

Web-based remote user interface accessible via LAN or USB Optional touchscreen display for local operator control Compact 1U form factor; 25 lbs weight Class 1 laser per IEC 60825-1:2014 Software compatible with 8160xA and 81600B laser families Operating altitude to 2000 m; humidity to 85% RH non-condensing

Typical Applications

Broadband optical device characterization Receiver sensitivity and linearity testing Transmission and coherent system experiments Tunable local oscillator reference

Compatibility & Integration

Standalone instrument with optional modular rack integration. Compatible with existing 81600-series laser control software.

Features & description

From manufacturer datasheet

Built-in wavelength meter and gas cell shared with the N777-C family

Optional 5 inch touchscreen (Option D01) PMF angled Panda output, slow-axis aligned to the key Web UI over LAN or USB RNDIS Technical Specifications Model: N7779C Instrument Type: Step tunable laser source Series Family: Keysight N777-C Wavelength Range Option 113: 1240 nm to 1380 nm Wavelength Range Option 114: 1340 nm to 1495 nm Wavelength Range Option 116: 1490 nm to 1640 nm Wavelength Range Option 216: 1450 nm to 1650 nm Wavelength Resolution: 0.1 pm Absolute Wavelength Accuracy: ± 30 pm; typical ± 10 pm Relative Wavelength Accuracy: ± 15 pm; typical ± 5 pm Wavelength Repeatability: ± 5 pm; typical ± 3 pm Wavelength Stability 24 Hour Typical: $\leq \pm 5$ pm typical, 24 hours at constant temperature ± 1 K Peak Output Power Options 114 116 216: greater than +12 dBm peak Peak Output Power Option 113: greater than +13 dBm peak Minimum Output Power Setting: 0 dBm (Options 113, 114, 116, 216) Signal To Sse Ratio: ≥ 75 dB/nm Signal To Sse Ratio 0.1 Nm: ≥ 85 dB/0.1 nm Smsr Typical: ≥ 70 dB typical Linewidth Typical Coherence Off: less than 10 kHz typical Relative Intensity Noise Typical: less than minus 145 dB/Hz typical, 0.1 to 6 GHz Power Stability 1 Hour: ± 0.01 dB, 1 hour Power Linearity: ± 0.1 dB Power Flatness Versus Wavelength: ± 0.25 dB

Polarization Extinction Ratio Typical: 16 dB typical

Laser Class: IEC 60825-1 Class 1M Operating Temperature: +10 C to +35 C Warm Up Time: 60 minutes; 30 minutes if previously stored at the same temperature Ac Power: 100 to 240 V ± 10 percent, 50/60 Hz, 200 VA max Dimensions: 88 mm x 426 mm x 545 mm Weight: approximately 8.5 kg net Notes Numeric rows from Keysight N777-C Family of Tunable Laser Sources data sheet 5992-4217, N7779C stepped-mode table and family wavelength/power/general tables. N7779C has no continuous-sweep specifications.

N7779C Characteristics / Specifications

PARAMETER	VALUE
Model	N7779C
Instrument Type	Step tunable laser source
Series Family	Keysight N777-C
Wavelength Range Option 1	1240 nm to 1380 nm
Wavelength Range Option 2	1450 nm to 1650 nm
Wavelength Resolution	0.1 pm
Absolute Wavelength Accuracy	±30 pm; typical ±10 pm
Relative Wavelength Accuracy	±15 pm; typical ±5 pm
Wavelength Repeatability	±5 pm; typical ±3 pm
Wavelength Stability 24 Hour Typical	≤ ±5 pm typical, 24 hours at constant temperature ±1 K
Peak Output Power Options 114 116 2	greater than +12 dBm peak
Peak Output Power Option 1	greater than +13 dBm peak
Minimum Output Power Setting	0 dBm (Options 113, 114, 116, 216)
Signal To Sse Ratio	≥75 dB/nm
Signal To Sse Ratio 0.1 Nm	≥85 dB/0.1 nm
Smsr Typical	≥70 dB typical
Linewidth Typical Coherence Off	less than 10 kHz typical
Relative Intensity Noise Typical	less than minus 145 dB/Hz typical, 0.1 to 6 GHz
Power Stability 1 Hour	±0.01 dB, 1 hour
Power Linearity	±0.1 dB
Power Flatness Versus Wavelength	±0.25 dB
Tuning Time Characteristic	300 ms for a 1 nm step at max output power
Return Loss Typical	60 dB typical
Polarization Extinction Ratio Typical	16 dB typical
Laser Class	IEC 60825-1 Class 1M

PARAMETER	VALUE
Operating Temperature	+10 C to +35 C
Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Ac Power	100 to 240 V ±10 percent, 50/60 Hz, 200 VA max
Dimensions	88 mm x 426 mm x 545 mm
Weight	approximately 8.5 kg net
Wavelength range	Option 113: 1240 nm to 1380 nm
Wavelength stability	24 Hour Typical: ≤ ±5 pm typical, 24 hours at constant temperature ±1 K
Linewidth	Typical Coherence Off: less than 10 kHz typical
Power stability	1 Hour: ±0.01 dB, 1 hour
Relative intensity noise	Typical: less than minus 145 dB/Hz typical, 0.1 to 6 GHz
Return loss	Typical: 60 dB typical
Polarization extinction ratio	Typical: 16 dB typical

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	+10 C to +35 C
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Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Ac Power	100 to 240 V ±10 percent, 50/60 Hz, 200 VA max
Dimensions	88 mm x 426 mm x 545 mm
Weight	approximately 8.5 kg net Notes Numeric rows from Keysight N777-C Family of Tunable Laser Sources data sheet 5992-4217, N7779C stepped-mode table and family wavelength/power/general tables. N7779C has no continuous-sweep specifications.

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	
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PARAMETER	VALUE
Model	N7779C
Instrument Type	Step tunable laser source
Series Family	Keysight N777-C
Wavelength Range Option 113	1240 nm to 1380 nm
Wavelength Range Option 114	1340 nm to 1495 nm
Wavelength Range Option 116	1490 nm to 1640 nm
Wavelength Range Option 216	1450 nm to 1650 nm
Wavelength Resolution	0.1 pm
Absolute Wavelength Accuracy	±30 pm; typical ±10 pm
Relative Wavelength Accuracy	±15 pm; typical ±5 pm
Wavelength Repeatability	±5 pm; typical ±3 pm
Wavelength Stability 24 Hour Typical	≤ ±5 pm typical, 24 hours at constant temperature ±1 K
Peak Output Power Options 114 116 216	greater than +12 dBm peak
Peak Output Power Option 113	greater than +13 dBm peak
Minimum Output Power Setting	0 dBm (Options 113, 114, 116, 216)
Signal To Sse Ratio	≥75 dB/nm
Signal To Sse Ratio 0.1 Nm	≥85 dB/0.1 nm
Smsr Typical	≥70 dB typical
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Relative Intensity Noise Typical	less than minus 145 dB/Hz typical, 0.1 to 6 GHz
Power Stability 1 Hour	±0.01 dB, 1 hour
Power Linearity	±0.1 dB
Power Flatness Versus Wavelength	±0.25 dB
Tuning Time Characteristic	300 ms for a 1 nm step at max output power
Return Loss Typical	60 dB typical
Polarization Extinction Ratio Typical	16 dB typical

PARAMETER	VALUE
Laser Class	IEC 60825-1 Class 1M
Operating Temperature	+10 C to +35 C
Warm Up Time	60 minutes; 30 minutes if previously stored at the same temperature
Ac Power	100 to 240 V ±10 percent, 50/60 Hz, 200 VA max
Dimensions	88 mm x 426 mm x 545 mm
Weight	approximately 8.5 kg net

Notes

Numeric rows from Keysight N777-C Family of Tunable Laser Sources data sheet 5992-4217, N7779C stepped-mode table and family wavelength/power/general tables. N7779C has no continuous-sweep specifications.

Laser Safety

Class 1M

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Generated August 14, 2026

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