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Data Sheet

August 15, 2026

BRISTOL

Bristol 228B High Accuracy Optical Wavelength Meter

Bristol Instruments 228B Optical Wavelength Meter The Bristol Instruments 228B is the 1.0 pm class member of the 228 Series Michelson interferometer optical wavelength meter for CW WDM lasers. OEM 228 Series datasheet rates wavelength 700 to 1650 nm (182 to 429 THz), absolute accuracy plus or minus 0.65 ppm (plus or minus 1.0 pm at 1550 nm), repeatability plus or minus 0.3 ppm (plus or minus 0.5 pm at 1550 nm), 0.1 s measurement time, and simultaneous optical power with plus or minus 0.5 dB calibration accuracy. The Bristol Instruments 228B is the 1.0 pm class member of the 228 Series Michelson interferometer optical wavelength meter for CW WDM lasers. OEM 228 Series datasheet rates wavelength 700 to 1650 nm (182 to 429 THz), absolute accuracy plus or minus 0.65 ppm (plus or minus 1.0 pm at 1550 nm), repeatability plus or minus 0.3 ppm (plus or minus 0.5 pm at 1550 nm), 0.1 s measurement time, and simultaneous optical power with plus or minus 0.5 dB calibration accuracy. WDM laser wavelength and power characterization inRandDand manufacturing, including drift, max/min, and SCPI logging over USB or Ethernet.



MODEL

Bristol 228B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

228B

LISTING

<https://aumictechlabs.com/products/228b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Bristol 228B is an optical wavelength meter designed for the precise characterization of WDM lasers, suitable for R&D scientists and manufacturing engineers. It utilizes a Michelson interferometer design for accurate wavelength measurements and offers continuous calibration with a built-in wavelength standard for maintained accuracy over time. The unit is built with a rugged design, intended for demanding manufacturing environments.

Technical Specifications *

Model: Bristol 228B **Product Type:** Optical Wavelength Meter **Optical Signal Type:** CW only

Wavelength Measurement Range: 1250 nm to 1650 nm, or 700 nm to 1650 nm

Wavelength Absolute Accuracy: * ± 1.0 pm (defined as measurement uncertainty with a confidence level of $\geq 99.7\%$) * ± 0.65 parts per million (± 1.0 pm at 1550 nm)

Wavelength Reference: Standard HeNe laser

Repeatability: Supports a confidence level of $\geq 99.7\%$

Traceability: Traceable to NIST standards (SRM 2517a)

Optical Power Measurement: * Accuracy: ± 0.5 dB * Simultaneous measurement of total optical power

Measurement Rate: 0.1 seconds per measurement

Input Power Sensitivity: As low as -30 dBm (1 μ W)

Maximum Input Level: +18 dBm

Optical Input Connector: FC (UPC or APC) fiber-optic connector

Fiber Type: 9/125 μ m Single-Mode fiber

Linearity: ± 0.3 dB

Measurement Display: Front panel display shows measured wavelength and power, maximum and minimum values, and total drift

Interfaces: SCPI using USB, Ethernet, or GPIB

Construction: Rugged design for manufacturing environments

Power Requirements: 90 - 264 VAC, 47 - 63 Hz, 80 VA max.

Why Choose Aumictech for Bristol 228B? At Aumictech, we specialize in supplying high-end optical wavelength measurement equipment. Whether you need precise wavelength characterization for WDM lasers, reliable performance in demanding industrial environments, or accurate traceability to NIST standards, our team ensures the Bristol 228B delivers maximum performance for your application.

Features & description

From manufacturer datasheet

Polarization Dependence: plus or minus 0.5 dB (700 to 1600 nm)

Power Display Resolution: 0.01 dB Power Units: dBm, mW, uW Maximum Laser Bandwidth: 10 GHz (80 pm at 1550 nm) Sensitivity 1250 To 1650 Nm: minus 30 dBm (1 uW) Sensitivity At 1000 Nm: minus 25 dBm (3 uW) Sensitivity At 700 Nm: minus 10 dBm (100 uW) Displayed Power Maximum: plus 10 dBm (10 mW) Safe Power Level: plus 18 dBm (63 mW) Measurement Time: 0.1 s (10 Hz) Return Loss Upc: 35 dB Return Loss Apc: 50 dB Optical Connector: prealigned FC/UPC or FC/APC 9/125 um Instrument Interface: SCPI via USB 2.0, Ethernet, optional GPIB Warm Up Time: none stated for 228B (standard HeNe reference) Operating Temperature: plus 15 C to plus 30 C Storage Temperature: minus 10 C to plus 70 C Pressure: 500 to 900 mm Hg Humidity: 90 percent RH at plus 40 C no condensation Dimensions: 3.5 by 17.0 by 15.0 inch (89 by 432 by 381 mm) Mass: 17 lb (7.65 kg) Ac Power: 90 to 264 VAC, 47 to 63 Hz, 80 VA max Calibration Standard: built in standard HeNe laser Confidence Level: coverage factor 3, at least 99.7 percent Nist Traceability: SRM 2517a class Notes Numeric rows from Bristol Instruments 228 Series Optical Wavelength Meter datasheet for model 228B. 228A usesastabilized single frequency HeNe and tighter ppm; do not apply 228A 0.2 ppm figures to 228B.

228B Characteristics / Specifications

PARAMETER	VALUE
Model	228B
Instrument Type	CW optical wavelength meter
Wavelength Range	700 to 1650 nm (182 to 429 THz)
Absolute Accuracy	plus or minus 0.65 ppm (plus or minus 1.0 pm at 1550 nm)
Repeatability	plus or minus 0.3 ppm (plus or minus 0.5 pm at 1550 nm)
Display Resolution Wavelength	0.0001 nm
Wavelength Units	nm, inverse cm, THz
Power Calibration Accuracy	plus or minus 0.5 dB (plus or minus 30 nm from 1310 and 1550 nm)
Power Linearity	plus or minus 0.3 dB (700 to 1600 nm)
Polarization Dependence	plus or minus 0.5 dB (700 to 1600 nm)
Power Display Resolution	0.01 dB
Power Units	dBm, mW, uW
Maximum Laser Bandwidth	10 GHz (80 pm at 1550 nm)
Sensitivity 1250 To 1650 Nm	minus 30 dBm (1 uW)
Sensitivity At 1000 Nm	minus 25 dBm (3 uW)
Sensitivity At 700 Nm	minus 10 dBm (100 uW)
Displayed Power Maximum	plus 10 dBm (10 mW)
Safe Power Level	plus 18 dBm (63 mW)
Measurement Time	0.1 s (10 Hz)
Return Loss Upc	35 dB
Return Loss Apc	50 dB
Optical Connector	prealigned FC/UPC or FC/APC 9/125 um
Instrument Interface	SCPI via USB 2.0, Ethernet, optional GPIB
Warm Up Time	none stated for 228B (standard HeNe reference)
Operating Temperature	plus 15 C to plus 30 C

PARAMETER	VALUE
Storage Temperature	minus 10 C to plus 70 C
Pressure	500 to 900 mm Hg
Humidity	90 percent RH at plus 40 C no condensation
Dimensions	3.5 by 17.0 by 15.0 inch (89 by 432 by 381 mm)
Mass	17 lb (7.65 kg)
Ac Power	90 to 264 VAC, 47 to 63 Hz, 80 VA max
Calibration Standard	built in standard HeNe laser
Confidence Level	coverage factor 3, at least 99.7 percent
Nist Traceability	SRM 2517a class
Bandwidth	10 GHz (80 pm at 1550 nm)
Return loss	Upc: 35 dB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 10 C to plus 70 C
Operating temperature	plus 15 C to plus 30 C
Operating Temperature	plus 15 C to plus 30 C
Humidity	90 percent RH at plus 40 C no condensation
Pressure	500 to 900 mm Hg
Dimensions	3.5 by 17.0 by 15.0 inch (89 by 432 by 381 mm)
Mass	17 lb (7.65 kg)
Ac Power	90 to 264 VAC, 47 to 63 Hz, 80 VA max
Calibration Standard	built in standard HeNe laser
Confidence Level	coverage factor 3, at least 99.7 percent
Nist Traceability	SRM 2517a class Notes Numeric rows from Bristol Instruments 228 Series Optical Wavelength Meter datasheet for model 228B. 228A usesastabilized single frequency HeNe and tighter ppm; do not apply 228A 0.2 ppm figures to 228B.

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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Model	228B
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Power Calibration Accuracy	plus or minus 0.5 dB (plus or minus 30 nm from 1310 and 1550 nm)
Power Linearity	plus or minus 0.3 dB (700 to 1600 nm)
Polarization Dependence	plus or minus 0.5 dB (700 to 1600 nm)
Power Display Resolution	0.01 dB
Power Units	dBm, mW, uW
Maximum Laser Bandwidth	10 GHz (80 pm at 1550 nm)
Sensitivity 1250 To 1650 Nm	minus 30 dBm (1 uW)
Sensitivity At 1000 Nm	minus 25 dBm (3 uW)
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Displayed Power Maximum	plus 10 dBm (10 mW)
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Measurement Time	0.1 s (10 Hz)
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Optical Connector	prealigned FC/UPC or FC/APC 9/125 um
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Warm Up Time	none stated for 228B (standard HeNe reference)
Operating Temperature	plus 15 C to plus 30 C
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PARAMETER	VALUE
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Notes

Numeric rows from Bristol Instruments 228 Series Optical Wavelength Meter datasheet for model 228B. 228A usesastabilized single frequency HeNe and tighter ppm; do not apply 228A 0.2 ppm figures to 228B.

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