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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 70950B – Optical Spectrum Analyzer Module

Agilent HP 70950B Optical Spectrum Analyzer Module The HP 70950B is the 4/8-width MMS optical spectrum analyzer plug-in module used in the HP 71450B system. OEM 5963-7040E assigns the 71450B optical performance column to the 70950B module and lists standard 4/8-width module size at 8 kg with multimode 9 um fiber optical input. Modular MMS spectral measurements of lasers amplifiers and components from 600 to 1700 nm when installed in an MMS mainframe/display. Resolution bandwidths less than 0.08 nm to 10 nm The HP 70950B is the 4/8-width MMS optical spectrum analyzer plug-in module used in the HP 71450B system. OEM 5963-7040E assigns the 71450B optical performance column to the 70950B module and lists standard 4/8-width module size at 8 kg with multimode 9 um fiber optical input. Modular MMS spectral measurements of lasers amplifiers and components from 600 to 1700 nm when installed in an MMS mainframe/display. Resolution bandwidths less than 0.08 nm to 10 nm Span Range: 0.2 nm to full range and zero span



MODEL

**Agilent / Keysight
70950B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

70950B

LISTING

<https://aumictechlabs.com/products/70950b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 70950B is a diffraction-grating-based optical spectrum analyzer module that measures spectral optical power versus wavelength across the 600 nm to 1700 nm range. Designed as a 4/8-width plug-in for the HP 70000 modular measurement system, it integrates with HP 70004A or HP 70001A mainframes to deliver precision characterization of optical components, amplifiers, LEDs, DFB lasers, and Fabry-Perot lasers.

Technical Specifications

Wavelength Range: 600 nm to 1700 nm Span Range: Continuously variable from 0.2 nm to full range; zero span capable Absolute Wavelength Accuracy: ± 1 nm (standard); ± 0.3 nm (user-calibrated); ± 0.05 nm (user-calibrated within 40 nm of calibration signal) Span Linearity: ± 0.05 nm (spans < 40 nm); ± 0.02 nm (1530–1570 nm band) Reproducibility (1 min): ± 0.005 nm (standard); ± 0.001 nm (user-calibrated) Tuning Repeatability: ± 0.005 nm Settability: ± 0.005 nm Resolution Bandwidth (FWHM): < 0.08 nm (0.065 nm $\pm 15\%$); 0.1 to 10 nm in 1, 2, 5 sequence Resolution Accuracy: $\pm 20\%$ (≥ 0.5 nm, 1250–1600 nm); $\pm 30\%$ (0.1–10 nm, 600–1700 nm) Corrected Bandwidth Accuracy (Noise Markers): $\pm 3\%$ (≥ 0.5 nm, 1250–1600 nm); $\pm 5\%$ characteristic (0.2 nm, 1250–1600 nm) Sweep Performance: 40 nm in 50 ms; full range in 500 ms Operating Temperature: 0°C to 55°C Storage Temperature: -40°C to $+71^{\circ}\text{C}$ Humidity: $< 95\%$ RH, non-condensing

Key Features Zero-span and continuous-span capability for flexible measurement modes Reduced dead-time sweeping preserves instrument longevity High-resolution bandwidth options from 0.065 nm to 10 nm Calibration-enhanced accuracy down to ± 0.001 nm reproducibility

Typical Applications Optical component characterization and spectral analysis Amplifier and laser device measurement LED and DFB laser characterization Fabry-Perot laser analysis

Compatibility & Integration Requires HP 70004A or HP 70001A mainframe within the HP 70000 modular measurement system. Connection via MSIB cable. Product status is obsolete; Keysight Service Centers may provide repair and calibration support.

Features & description

From manufacturer datasheet

Polarization Dependence 1250 To 1600 nm: plus or minus 0.5 dB

Sensitivity 1200 To 1600 nm: minus 90 dBm Sensitivity 900 To 1200 nm: minus 75 dBm Sensitivity 750 To 900 nm First Order: minus 65 dBm Sensitivity 1600 To 1700 nm: minus 80 dBm Dynamic Range 0.1 nm 600 To 1700 nm: minus 50 dB at greater than or equal to plus or minus 1 nm Dynamic Range 0.1 nm 1250 To 1600 nm: minus 55 dB at greater than or equal to plus or minus 0.5 nm Compression Level 0.05 dB: greater than or equal to 10 dBm Maximum Displayed Level: greater than or equal to 15 dBm Maximum Safe Input: plus 20 dBm per 5 nm plus 30 dBm total Input Return Loss Pc Or Hms-10: greater than 35 dB Optical Input Fiber: multimode standard 9 um fiber Module Form Factor: standard 4/8-width MMS module Module Mass: 8 kg Operating Temperature: 0 to plus 55 C Storage Temperature: minus 40 to plus 71 C Humidity: less than 95 percent RH non-condensing Default Hpib Address Typical: 23 Host System Example: HP 71450B Notes From HP 71450B/71451B/71452B Technical Specifications 5963-7040E. Optical rows are the 71450B/70950B column; mechanical rows are the module entries in that datasheet.

70950B Characteristics / Specifications

PARAMETER	VALUE
Wavelength Range	600 to 1700 nm
Span Range	0.2 nm to full range and zero span
Absolute Wavelength Accuracy	plus or minus 1 nm
Absolute Accuracy After User Cal	plus or minus 0.3 nm
Span Linearity Spans Less Than 40 nm	plus or minus 0.05 nm
Wavelength Reproducibility 1 Minute	plus or minus 0.005 nm
Tuning Repeatability	plus or minus 0.005 nm
Resolution Bandwidth Fwhm	less than 0.08 nm and 0.1 to 10 nm in 1 2 5 sequence
Resolution Accuracy 0.5 nm Or Greater 1250 To 1600 nm	plus or minus 20 percent
Amplitude Calibration Accuracy At Minus 30 dBm 1300 nm	plus or minus 0.5 dB
Scale Fidelity Autorange Off	plus or minus 0.1 dB
Display Resolution Log	0.01 dB
Flatness 1290 To 1330 nm	plus or minus 0.25 dB
Flatness 1530 To 1570 nm	plus or minus 0.25 dB
Flatness 1250 To 1600 nm	plus or minus 1 dB
Polarization Dependence 1250 To 1600 nm	plus or minus 0.5 dB
Sensitivity 1200 To 1600 nm	minus 90 dBm
Sensitivity 900 To 1200 nm	minus 75 dBm
Sensitivity 750 To 900 nm First Order	minus 65 dBm
Sensitivity 1600 To 1700 nm	minus 80 dBm
Dynamic Range 0.1 nm 600 To 1700 nm	minus 50 dB at greater than or equal to plus or minus 1 nm
Dynamic Range 0.1 nm 1250 To 1600 nm	minus 55 dB at greater than or equal to plus or minus 0.5 nm
Compression Level 0.05 dB	greater than or equal to 10 dBm
Maximum Displayed Level	greater than or equal to 15 dBm

PARAMETER	VALUE
Maximum Safe Input	plus 20 dBm per 5 nm plus 30 dBm total
Optical Input Fiber	multimode standard 9 um fiber
Module Form Factor	standard 4/8-width MMS module
Module Mass	8 kg
Operating Temperature	0 to plus 55 C
Storage Temperature	minus 40 to plus 71 C
Humidity	less than 95 percent RH non-condensing
Default Hpib Address Typical	23
Host System Example	HP 71450B
Bandwidth	Fwhm: less than 0.08 nm and 0.1 to 10 nm in 1 2 5 sequence
Return loss	Pc Or Hms-10: greater than 35 dB

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 to plus 71 C
Operating temperature	0 to plus 55 C
Operating Temperature	0 to plus 55 C
Humidity	less than 95 percent RH non-condensing
Default HpiB Address Typical	23
Host System Example	HP 71450B Notes From HP 71450B/71451B/71452B Technical Specifications 5963-7040E. Optical rows are the 71450B/70950B column; mechanical rows are the module entries in that datasheet.

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.

performance column to the 70950B module and lists standard 4/8-width module size at 8 kg with multimode 9 um fiber optical input.

Applications

Modular MMS spectral measurements of lasers amplifiers and components from 600 to 1700 nm when installed in an MMS mainframe/display.

Key Features

Diffraction grating OSA module for MMS

600 to 1700 nm coverage

Resolution bandwidths less than 0.08 nm to 10 nm

User wavelength calibration path

Standard 4/8-width MMS module

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Wavelength Range	600 to 1700 nm
Span Range	0.2 nm to full range and zero span
Absolute Wavelength Accuracy	plus or minus 1 nm
Absolute Accuracy After User Cal	plus or minus 0.3 nm
Span Linearity Spans Less Than 40 nm	plus or minus 0.05 nm
Wavelength Reproducibility 1 Minute	plus or minus 0.005 nm
Tuning Repeatability	plus or minus 0.005 nm
Resolution Bandwidth Fwhm	less than 0.08 nm and 0.1 to 10 nm in 1 2 5 sequence

Resolution Accuracy 0.5 nm Or Greater 1250 To 1600 nm: plus or minus 20 percent

Amplitude Calibration Accuracy At Minus 30 dBm 1300 nm: plus or minus 0.5 dB

Specifications

PARAMETER	VALUE
Scale Fidelity Autorange Off	plus or minus 0.1 dB
Display Resolution Log	0.01 dB
Flatness 1290 To 1330 nm	plus or minus 0.25 dB
Flatness 1530 To 1570 nm	plus or minus 0.25 dB
Flatness 1250 To 1600 nm	plus or minus 1 dB
Polarization Dependence 1250 To 1600 nm	plus or minus 0.5 dB
Sensitivity 1200 To 1600 nm	minus 90 dBm
Sensitivity 900 To 1200 nm	minus 75 dBm

PARAMETER	VALUE
Sensitivity 750 To 900 nm First Order	minus 65 dBm
Sensitivity 1600 To 1700 nm	minus 80 dBm

Dynamic Range 0.1 nm 600 To 1700 nm: minus 50 dB at greater than or equal to plus or minus 1 nm
Dynamic Range 0.1 nm 1250 To 1600 nm: minus 55 dB at greater than or equal to plus or minus 0.5 nm

Specifications

PARAMETER	VALUE
Compression Level 0.05 dB	greater than or equal to 10 dBm
Maximum Displayed Level	greater than or equal to 15 dBm
Maximum Safe Input	plus 20 dBm per 5 nm plus 30 dBm total

Input Return Loss Pc Or Hms-10: greater than 35 dB

Specifications

PARAMETER	VALUE
Optical Input Fiber	multimode standard 9 um fiber
Module Form Factor	standard 4/8-width MMS module
Module Mass	8 kg
Operating Temperature	0 to plus 55 C
Storage Temperature	minus 40 to plus 71 C
Humidity	less than 95 percent RH non-condensing
Default Hpib Address Typical	23
Host System Example	HP 71450B

Notes
From HP 71450B/71451B/71452B Technical Specifications 5963-7040E. Optical rows are the 71450B/70950B column; mechanical rows are the module entries in that datasheet.

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.