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**Data Sheet**
August 14, 2026

AGILENT / KEYSIGHT

# Agilent/Keysight N7768A 8-Channel Variable Optical Attenuator

Operating Temperature: plus 5 C to plus 40 C Recalibration Period Recommended: 24 months Connector Interface: FC/PC straight contact Numeric rows from Agilent/Keysight N77-Series Attenuators multimode tables for N7768A. Recalibration Period Recommended: 24 months Connector Interface: FC/PC straight contact Numeric rows from Agilent/Keysight N77-Series Attenuators multimode tables for N7768A.

| MODEL | CALIBRATION |
|---|---|
| Agilent / Keysight N7768A | Available on request |
| CONDITION | STATUS |
| Used | In stock |
| RFQ / SKU | LISTING |
| N7768A | https://aumictechlabs.com/products/n7768a-3/ |

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Agilent/Keysight N7768A is a four-channel optical attenuator specifically designed for multimode fiber applications. This instrument is optimized for manufacturing test environments, offering speed, compactness, and high optical quality. It has precise control over optical signal power levels, making it suitable for applications such as determining optical receiver sensitivity by measuring Bit Error Rate (BER) versus input signal power. The N7768A is engineered to preserve the input modal power distribution while attenuating and controlling light in optical fibers, ensuring accurate and repeatable power settings. Key Technical Specifications and Features: * Product Type: Four-Channel Multimode Optical Attenuator Channels: 4 Fiber Type Compatibility: * Multimode Fiber (MMF) * Available with 50 µm, 62.5 µm, or 80 µm core multimode fiber options *

Specific option 050 for 50/125 µm Multimode Fiber Interface * Specific option 062 for 62.5/125 µm Multimode Fiber Interface * Specific option 080 for 80 µm-core MMF Wavelength Range: 800 nm to 1370 nm Attenuation Range: 0 dB to 35 dB Power Monitoring: Built-in power monitoring for accurate and stable power setting, independent of input power variations. Offset parameters allow the set power to correspond to the signal after other optical components in the setup path. Optical Path: Miniature bulk optics designed for optimal transfer of modal distribution. Optical Path Blocking: Typically > 60 dB Settling Time: Typically 200 ms Transition Speed: Selectable from 0.1 to 80 dB/s, and a full speed of approximately 1000 dB/s. All speeds above 80 dB/s are set to 1000 dB/s. Relative Power Monitor Uncertainty: ±0.1 dB + 300 pW Control Interfaces: Operable via LAN, USB, or GPIB. The instrument is code-compatible with Keysight's 8157x modular attenuators and 8163x optical power meter commands. Form Factor: 1U half-rack height (instrument can be operated alone or with other units). Operational Optimization: Optimized for quick power setting and preservation of input modal power distribution. Power Control Functionality: Automatically corrects for input power changes to maintain the set output power level when power control mode is enabled. Connectivity: * Optical Connectors: FC/PC straight contact connector interface. Electrical Interfaces: LAN, USB, GPIB. Operating Environment: * Temperature: Operating environment must be within specified limits for the instrument to meet specifications. Specific temperature ranges are detailed in the user manual. Humidity: Non-condensing Altitude: Maximum operating altitude of 2000 m Pollution Protection: Designed for pollution degree 2 Compatibility: * Fully compatible with setups and programs developed using Keysight 8157x modular attenuators and basic 8163x optical power meter commands. The instrument generation can serve as plug-in replacements in existing test solutions due to code compatibility with Keysight's Lightwave Measurement System modules. Product Status: * The Agilent/Keysight N7768A is a discontinued product. However, technical support, calibration, and repair services may still be available. A successor product, the N7768C, is available. Why Choose Aumictech for Keysight N7768A? At Aumictech, we specialize in supplying optical test and measurement equipment. Whether you need reliable attenuators for high-volume manufacturing, precise power control for component characterization, or solid solutions for system integration, our team ensures that the Keysight N7768A delivers maximum performance for your application.

## N7768A Characteristics / Specifications

| PARAMETER | VALUE |
|---|---|
| **Instrument Type** | Multimode variable optical attenuator |
| **Series Family** | Keysight N77 Series multimode |
| **Attenuator Channels** | 4 |
| **Fiber Options** | 50/125 um Option 050; 62.5/125 um Option 062; 80 um core Option 080 |
| **Wavelength Range** | 800 nm to 1370 nm |
| **Attenuation Range** | 0 dB to 35 dB |
| **Attenuation Resolution** | 0.03 dB |
| **Power Setting Range** | minus 35 dBm to plus 20 dBm |
| **Power Setting Resolution** | 0.03 dB |
| **Relative Accuracy** | plus or minus 0.1 dB |
| **Accuracy Uncertainty** | plus or minus 0.25 dB; typical plus or minus 0.15 dB |
| **Settling Time Typical** | 200 ms for 20 dB step |
| **Insertion Loss** | 2.0 dB or less; typical 1.3 dB or less |
| **Attenuation Transition Speed** | selectable 0.1 to 80 and 1000 dB/s |
| **Monitor Relative Uncertainty** | plus or minus 0.1 dB |
| **Return Loss Typical** | 25 dB |
| **Maximum Safe Input Power** | plus 23 dBm |
| **Optical Path Blocking Typical** | 60 dB |
| **Dimensions Class** | about 460 mm x 212 mm x 43 mm excluding cushions |
| **Weight Approximate** | 3 kg |
| **Line Power** | AC 100 to 240 V plus or minus 10 percent 50/60 Hz 60 VA max |
| **Remote Interfaces** | LAN USB GPIB |
| **Operating Temperature** | plus 5 C to plus 40 C |
| **Warm Up Time** | 20 minutes |
| **Recalibration Period Recommended** | 24 months |

| PARAMETER | VALUE |
| --- | --- |
| **Connector Interface** | FC/PC straight contact |
| **Attenuation** | Range: 0 dB to 35 dB |
| **Return loss** | Typical: 25 dB |

# N7768A Specifications

| PARAMETER | VALUE |
| --- | --- |
| **Applications** | Multimode transceiver testing and modal-preserving power setting for IEEE 802.3 encircled-flux launch conditions. |
| **Selectable attenuation transition speed** | Half width 1U rack density class |
| **Technical Specifications** | Instrument Type: Multimode variable optical attenuator |
| **Notes** | Numeric rows from Agilent/Keysight N77-Series Attenuators multimode tables for N7768A. |

## General Specifications & Supplementary Characteristics

| PARAMETER | VALUE |
| --- | --- |
| **Operating temperature** | plus 5 C to plus 40 C |
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| **Warm Up Time** | 20 minutes |
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| **Connector Interface** | FC/PC straight contact Notes Numeric rows from Agilent/Keysight N77-Series Attenuators multimode tables for N7768A. |

# 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

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| **Dimensions Class** | about 460 mm x 212 mm x 43 mm excluding cushions |
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| **Remote Interfaces** | LAN USB GPIB |
| **Operating Temperature** | plus 5 C to plus 40 C |
| **Warm Up Time** | 20 minutes |
| **Recalibration Period Recommended** | 24 months |
| **Connector Interface** | FC/PC straight contact |

Notes

Numeric rows from Agilent/Keysight N77-Series Attenuators multimode tables for N7768A.

## Ordering Information

| OPTION | DESCRIPTION |
| --- | --- |
| **Option 080** | Wavelength Range: 800 nm to 1370 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.