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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N7744C Optical Multiport Power Meter, 4 channels 1250 to 1650 nm

Agilent Keysight N7744C Optical Multiport Power Meter The Keysight N7744C is an N77 Series optical multiport power meter with 4 InGaAs sensor ports. OEM N7744C/N7745C data sheet 5992-4218EN lists 1250 nm to 1650 nm, minus 80 dBm to +10 dBm, 1 us to 10 s averaging, and 1 million samples per port. Multiport IL of multiplexers, PON splitters, WSS and ROADMs; simultaneous test of multiple single-port optical devices; swept IL/PDL with Keysight TLS and N7700 software. N7740 quad adapter one-click fiber connectivity The Keysight N7744C is an N77 Series optical multiport power meter with 4 InGaAs sensor ports. OEM N7744C/N7745C data sheet 5992-4218EN lists 1250 nm to 1650 nm, minus 80 dBm to +10 dBm, 1 us to 10 s averaging, and 1 million samples per port. Multiport IL of multiplexers, PON splitters, WSS and ROADMs; simultaneous test of multiple single-port optical devices; swept IL/PDL with Keysight TLS and N7700 software. N7740 quad adapter one-click fiber connectivity Up to 1 million samples per second per port logging



MODEL

**Agilent / Keysight
N7744C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N7744C

LISTING

<https://aumictechlabs.com/products/n7744c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N7744C is a four-channel optical power meter for simultaneous measurements across the 1250 nm to 1650 nm wavelength band. It characterizes multi-port optical components

and enables parallel testing of single-port devices, delivering high-throughput performance in R&D and manufacturing. The half-rack width, single-rack height form factor optimizes space utilization.

Technical Specifications

Measurement Capabilities

Channels: 4 Wavelength range: 1250 nm to 1650 nm Sensor type: InGaAs Power ranges: +10 dBm to -80 dBm, -60 dBm to +10 dBm, -80 dBm to +10 dBm Data acquisition: 1 million samples per second per port Minimum averaging time: 1 μ s Bandwidth: Up to 250 kHz Memory: 1 M samples per port plus 1 M sample continuous logging buffer Power uncertainty: $\pm 2.5\%$ at reference conditions Dynamic range: 65 dB in swept and logging applications; over 80 dB with fast power range switching Polarization dependence: $< \pm 0.01$ dB typical Connectivity Optical ports: 4 channels with snap-on quad-adapter fiber connectivity (N7740 concept) Data interfaces: LAN and USB Triggering: Hardware trigger with input power threshold detection for transient measurements

Key Features

Fast power range switching for stitching measurements across extended dynamic range Continuous data logging at 1 M samples/s per port Snap-on quad-adapters (N7740BI bare fiber version available) simplify multi-fiber alignment and connection One-click zeroing adapter (N7740ZI) for rapid calibration No analog output on this model

Typical Applications

Multi-port optical component characterization Parallel single-port device testing Transient power measurements with threshold triggering High-throughput manufacturing test

Compatibility & Integration

The instrument supports SCPI command programming and features a browser-accessible user interface via LAN or USB with no software installation required. Parallel programming over multiple connections enables integration of multiple instruments.

Features & description

From manufacturer datasheet

Polarization Dependent Responsivity: less than ± 0.015 dB from 1520 nm to 1580 nm

Spectral Ripple Due To Interference: less than ± 0.01 dB from 1520 nm to 1625 nm Drift Dark: ± 9 pW
Noise Peak To Peak Dark: less than 7 pW (1 s averaging, 300 s observation) Averaging Time: 1 μ s to 10 s
Data Logging Capability: 2 buffers per port, each 1 million measurement points Port Separation: greater than 85 dB (CW, neighbor port at 0 dBm) Return Loss Angled: greater than 50 dB, 1520 nm to 1580 nm
Line Power: AC 100 to 240 V ± 10 percent, 50/60 Hz, 60 VA max Operating Temperature: +5 C to +40 C
Storage Temperature: minus 40 C to +70 C Warm Up Time: 20 minutes Recommended Recalibration Period: 2 years
Dimensions: 420 mm x 212 mm x 43 mm excluding cushions Weight: 3 kg Remote Interfaces: LAN USB
Notes Numeric rows from Keysight N7744C 4-Channel and N7745C 8-Channel Optical Multiport Power Meter data sheet 5992-4218EN.

N7744C Characteristics / Specifications

PARAMETER	VALUE
Model	N7744C
Instrument Type	Optical multiport power meter
Series Family	Keysight N77 optical power meters
Optical Ports	4
Sensor Element	InGaAs
Wavelength Range	1250 nm to 1650 nm
Specification Wavelength Range	1250 nm to 1625 nm unless stated
Power Range	minus 80 dBm to +10 dBm
Maximum Safe Input Power	+16 dBm
Applicable Fiber	standard SM and MM 62.5 um core or less, NA 0.24 or less
Uncertainty At Reference Conditions	±2.5 percent
Total Uncertainty	±4.5 percent
Relative Port To Port Uncertainty Typical	±0.05 dB typical
Polarization Dependent Responsivity	less than ±0.015 dB from 1520 nm to 1580 nm
Spectral Ripple Due To Interference	less than ±0.01 dB from 1520 nm to 1625 nm
Drift Dark	±9 pW
Noise Peak To Peak Dark	less than 7 pW (1 s averaging, 300 s observation)
Averaging Time	1 us to 10 s
Data Logging Capability	2 buffers per port, each 1 million measurement points
Port Separation	greater than 85 dB (CW, neighbor port at 0 dBm)
Return Loss Angled	greater than 50 dB, 1520 nm to 1580 nm
Line Power	AC 100 to 240 V ±10 percent, 50/60 Hz, 60 VA max
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PARAMETER	VALUE
Recommended Recalibration Period	2 years
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Weight	3 kg
Remote Interfaces	LAN USB
Return loss	Angled: greater than 50 dB, 1520 nm to 1580 nm

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 C to +70 C
Operating temperature	+5 C to +40 C
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Weight	3 kg
Remote Interfaces	LAN USB Notes Numeric rows from Keysight N7744C 4-Channel and N7745C 8-Channel Optical Multiport Power Meter data sheet 5992-4218EN.

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
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Instrument Type	Optical multiport power meter
Series Family	Keysight N77 optical power meters
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Total Uncertainty	±4.5 percent
Relative Port To Port Uncertainty Typical	±0.05 dB typical
Linearity At 23 C ±5 C: ±0.02 dB ±3 pW	
Specifications	
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Notes
Numeric rows from Keysight N7744C 4-Channel and N7745C 8-Channel Optical Multiport Power Meter data sheet 5992-4218EN.

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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NIST-traceable calibration · SAM registered ·
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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.