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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N7745C Optical Multiport Power Meter, 8 channels

Line Power: AC 100 to 240 V ±10 percent, 50/60 Hz, 60 VA max Recommended Recalibration Period: 2 years Dimensions: 420 mm x 212 mm x 43 mm excluding cushions Numeric rows from Keysight N7744C/N7745C Optical Multiport Power Meter data sheet 5992-4218EN. Optical specs are common; N7745C provides eight channels. Recommended Recalibration Period: 2 years Dimensions: 420 mm x 212 mm x 43 mm excluding cushions Numeric rows from Keysight N7744C/N7745C Optical Multiport Power Meter data sheet 5992-4218EN. Optical specs are common; N7745C provides eight channels.

MODEL **Agilent / Keysight N7745C**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **N7745C**	LISTING **https://aumictechlabs.com/products/n7745c-2/**

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Keysight N7745C is an eight-channel optical multiport power meter designed for parallel, high-speed measurement of optical devices and systems. It acquires data at up to 1 million samples per second per port across all channels simultaneously, enabling rapid characterization of multiplexers, PON splitters, wavelength selective switches, and ROADMs in both R&D and manufacturing. The instrument employs dual-ported RAM architecture to decouple measurement from readout, eliminating test delays.Power threshold triggering supports transient capture, while external trigger inputs (TTL, BNC) enable synchronization with external test events. The half-rack

form factor occupies minimal bench space, consuming only 60 VA maximum with all options installed.Technical Specifications Channels: 8 independent measurement ports Sensor Type: InGaAs with optional filter configurations Wavelength Range: 1250 nm to 1650 nm (standard); 800 nm to 1650 nm or 800 nm to 1700 nm (optional) Power Measurement Ranges: –80 dBm to +10 dBm (standard); –70 dBm to +20 dBm or –110 dBm to +10 dBm (optional); –60 dBm to +10 dBm (under defined conditions) Measurement Uncertainty: ±2.5% at reference conditions Dynamic Range: 65 dB in swept and logging modes without ranging Polarization Dependence: <±0.01 dB (typical) Data Acquisition Rate: 1 million samples/second per port Minimum Averaging Time: 1 µs Bandwidth: 250 kHz maximum Memory: 1 M samples per port plus 1 M per port buffer for continuous logging Data Transfer Speed: 3× faster than previous generations Power Input: 100 V to 240 V AC, 50/60 Hz, ±10% maximum variation Dimensions: 12 × 10 × 8 inches Weight: Approximately 10 lbs Operating Temperature: 5°C to +40°CKey Features Simultaneous eight-port measurements minimize test cycle time Power threshold triggering for event-based transient capture External TTL trigger I/O (BNC connectors) for system integration Rapid measurement throughput via optimized data interfaces LAN, USB, and GPIB control interfaces for flexible instrument integrationTypical Applications Multi-channel optical component characterization Wavelength-division multiplexing (WDM) system validation PON network component testing ROADM and WSS performance verificationCompatibility & Integration Compatible with Keysight's N77xx Viewer software. Browser-accessible user interface via LAN or USB connection supports remote operation and data logging.

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 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 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/N7745C Optical Multiport Power Meter data sheet 5992-4218EN. Optical specs are common; N7745C provides eight channels.

N7745C Characteristics / Specifications

PARAMETER	VALUE
Model	N7745C
Instrument Type	Optical multiport power meter
Series Family	Keysight N77 optical power meters
Optical Ports	8
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
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
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

PARAMETER	VALUE
Dimensions	420 mm x 212 mm x 43 mm excluding cushions
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
Operating Temperature	+5 C to +40 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/N7745C Optical Multiport Power Meter data sheet 5992-4218EN. Optical specs are common; N7745C provides eight channels.

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 as N7744C in an 8-channel 1U half-rack package.

Applications
High-port-count IL of multiplexers, WSS and ROADMs; parallel multi-device manufacturing test; swept IL/PDL with Keysight TLS.

Key Features
Eight power-sensor channels in one 1U half-rack instrument
N7740 quad adapter connectivity (two adapters)
1 us averaging and 1 million samples per port
Concurrent ranging for bidirectional TLS sweeps
LAN and USB browser UI

Technical Specifications

Technical Specifications

PARAMETER	VALUE
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Instrument Type	Optical multiport power meter
Series Family	Keysight N77 optical power meters
Optical Ports	8
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

Linearity At 23 C ±5 C: ±0.02 dB ±3 pW

Specifications

PARAMETER	VALUE
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

PARAMETER	VALUE
Averaging Time	1 us to 10 s
Data Logging Capability	2 buffers per port, each 1 million measurement points
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Notes
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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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