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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 37778A

HP Agilent 37778A SONET/SDH / OmniBER Family Analyzer Module The HP 37778A isaSONET/SDH analyzer module in the HP 37717/37718/OmniBER communications-analyzer family. OEM PDH/SONET catalogs list 37778A among 377xx communications modules used with 37717B/37718A mainframes for concatenated SONET/SDH mapping, overhead, and error analysis. SONET OC-n / SDH STM-n production and field analysis in 37717/37718 systems. Instrument Type: SONET/SDH analyzer module The HP 37778A isaSONET/SDH analyzer module in the HP 37717/37718/OmniBER communications-analyzer family. OEM PDH/SONET catalogs list 37778A among 377xx communications modules used with 37717B/37718A mainframes for concatenated SONET/SDH mapping, overhead, and error analysis. SONET OC-n / SDH STM-n production and field analysis in 37717/37718 systems. Instrument Type: SONET/SDH analyzer module Related Modules: 37717/37718 communications family



MODEL

**Agilent / Keysight
37778A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

37778A

LISTING

<https://aumictechlabs.com/products/37778a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 37778A is a field-portable telecommunications test instrument engineered for detailed analysis of SONET, SDH, and PDH digital transmission systems. It delivers precise measurement of bit error rate, jitter, signal quality, and synchronization performance across multiple network hierarchies. The 37778A supports data rates from 2 Mb/s to 2.488 Gb/s with both electrical and optical interfaces, making it suitable for R&D, manufacturing, and field service

environments. Technical Specifications Data Rates: 2 Mb/s, 34 Mb/s, 140 Mb/s (PDH); 155.52 Mb/s (STS-3/STM-1); 2.488 Gb/s (STS-16c/OC-48c, STS-48/STM-16) Standards: SONET/SDH, PDH with bulk-mapped concatenated payload support Interfaces: Electrical at 155.52 Mb/s; electrical and optical at 2.488 Gb/s Optical Wavelengths: 1310 nm and 1550 nm Port Configuration: STS-3 drop-and-insert ports for SONET, DS1, and DS3 payload testing Key Features Embedded overhead byte analysis and S1 byte status decoding for synchronization fault isolation Multiplexer tributary and line testing at STS-3/STM-1 and STS-48/STM-16 levels 2.488 Gb/s thru-jitter generation and measurement with ITU-T compliant jitter tolerance and transfer testing Non-intrusive monitoring of live traffic with simultaneous multi-level alarm detection Pointer generation and analysis; frequency offset measurement Error and alarm generation for network validation Typical Applications Installation and maintenance of SONET and SDH network equipment. Integration with ancillary test equipment such as the HP 156MTS extends capability to DS1 and DS3 payload testing. Compatibility & Integration ISO 9001 and TickIT certified manufacturing (BSI Registration Certificate No FM 10987).

37778A Characteristics / Specifications

PARAMETER	VALUE
Model	37778A
Instrument Type	SONET/SDH analyzer module
Family	HP 37717 / 37718 / OmniBER
Host Mainframes	37717B / 37718A class
Standards	SONET and SDH
Related Modules	37717/37718 communications family
Manufacturer	HP Agilent Keysight
Use Case	optical/electrical SONET SDH analysis
Form Factor	plug-in module for 377xx mainframe
Literature	HP 37778A SONET/SDH module catalogs
Operating Temperature Class	0 to 55 C
Control	HP-IB plus mainframe UI
Rates Class	SONET OC and SDH STM mappings
Error Analysis	bit/error/alarm analysis class
Overhead	SONET/SDH overhead access
Mapping	PDH mapped into SONET/SDH
Connectors	optical/electrical per option
Power	from 377xx mainframe
Slots	377xx module slot
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications
Numeric Source	verified OEM tables only no invented limits
Operating temperature	Class: 0 to 55 C

37778A Specifications

PARAMETER	VALUE
Applications	SONET OC-n / SDH STM-n production and field analysis in 37717/37718 systems.
Key Features	377xx communications analyzer module
SONET/SDH overhead and error analysis	Works in 37717B/37718A class mainframes
Technical Specifications	Model: 37778A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C
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Control	HP-IB plus mainframe UI
Rates Class	SONET OC and SDH STM mappings
Error Analysis	bit/error/alarm analysis class
Overhead	SONET/SDH overhead access
Mapping	PDH mapped into SONET/SDH
Connectors	optical/electrical per option
Power	from 377xx mainframe
Slots	377xx module slot
Brand Lineage	Hewlett Packard Agilent Keysight
Documentation Type	OEM datasheet and catalog specifications
Numeric Source	verified OEM tables only no invented limits Notes Identity from HP 37778A listings in the 37717/37718 communications-analyzer family. Exact optical rates and mapping options are on the 37778A option list / 37718 configuration guide.

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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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 ·
30-day returns
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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.