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Data Sheet

August 13, 2026

AGILENT

Agilent J2127A 10Gb/s Transmission Test Set. Opt 100, 111, 190

Agilent J2127A Field Portable Transmission Test Set to 10 Gb/s The Agilent J2127A is a field-portable multi-rate transmission test set supporting SONET/SDH to OC-192/STM-64 (10 Gb/s), DSn/PDH electrical rates, and simultaneous 10/100/1000 Mb/s Ethernet testing. Dual-wavelength optics at 1310/1550 nm and all-channel monitoring reduce installation and maintenance test time. The Agilent J2127A is a field-portable multi-rate transmission test set supporting SONET/SDH to OC-192/STM-64 (10 Gb/s), DSn/PDH electrical rates, and simultaneous 10/100/1000 Mb/s Ethernet testing. Dual-wavelength optics at 1310/1550 nm and all-channel monitoring reduce installation and maintenance test time.



MODEL

Agilent J2127A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

J2127A

LISTING

<https://aumictechlabs.com/products/j2127a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent J2127A 10Gb/s Transmission Test Set is a portable instrument for installation and maintenance of high-speed, multi-service transmission networks. It delivers comprehensive test coverage across SONET, SDH, DSn/PDH, and T-Carrier interfaces with optical rates to 10 Gb/s and integrated multi-port Ethernet testing. The instrument reduces test times and operational costs through unified multi-rate, multi-port, and multi-service architecture. Technical Specifications Optical Line Rates: OC-1, OC-3, OC-12, OC-48, OC-192 STM-0, STM-1, STM-4,

STM-16, STM-64 Electrical Line Rates (Optional): DS1 (1.5 Mb/s), DS3 (45 Mb/s), 2 Mb/s, 8 Mb/s, 34 Mb/s, 140 Mb/s Optical Interface Options: Option 100: 1310 nm (rates to 2.5 Gb/s) Option 111: 1550 nm high-sensitivity optics (rates to 10 Gb/s) Ethernet Testing (Option #323): Eight 10/100BASE-T ports and two 1000BASE-X ports operating simultaneously Physical layer and Layer 2 testing: throughput, latency, frame loss Automated RFC 2544 compliance testing Key Features SONET/SDH Capabilities: Dual-standard simultaneous testing All-channel monitoring of up to 192 STS/AU channels for errors, alarms, and pointer activity Automatic line rate and channel structure discovery VT/TU channel monitoring within selected STS/AU Path trace message identification and routing error detection DS_n/PDH Testing: Unframed, framed, and structured (mux/demux) modes Error and alarm generation/detection 56 kb/s, $n \times 56$ kb/s, 64 kb/s, and $n \times 64$ kb/s testing Drop/insert capability from/to SONET/SDH Measurements and Analysis: Optical power and electrical level Line frequency, pointer activity, service disruption Round trip delay and pulse mask analysis Performance metrics: G.826, G.828, G.821, M.2100, M.2101, M.2101.1, M.2110, M.2120 Intrusive and non-intrusive through-mode testing Typical Applications Transmission network installation, maintenance, and troubleshooting across SONET/SDH, PDH, and Ethernet infrastructure Compatibility & Integration Supports multi-service testing across T-Carrier, DS_n/PDH, SONET/SDH, and Ethernet networks in single portable platform.

Features & description

From manufacturer datasheet

Features

- Line rates to 10 Gb/s OC-192 / STM-64
- Dual standard SONET and SDH testing
- 1310 nm and 1550 nm optics at 2.5G and 10G
- Simultaneous Ethernet testing 10/100/1000 Mb/s
- All-channel monitoring up to 192 paths
- Service disruption and performance analysis measurements
- Through Mode testing and electrical pulse mask

Applications

- Field installation and maintenance of SONET/SDH to 10 Gb/s
- Multi-rate multi-port multi-service under-one-handle testing
- Simultaneous Ethernet 10/100/1000 Mb/s verification
- All-channel STS/AU error alarm and pointer monitoring

J2127A Characteristics / Specifications

PARAMETER	VALUE
Model	J2127A
Manufacturer	Agilent / Keysight
Instrument Type	Field Portable Transmission Test Set
Alias	J2127A; Agilent J2127A
Maximum optical rate	10 Gb/s OC-192 / STM-64
Related lower rate model	J2126A to 2.5 Gb/s
Wavelength 1310 nm to 2.5G	1260 to 1360 nm
Wavelength 1550 nm to 2.5G	1500 to 1580 nm
Wavelength 1310 nm 10G	1290 to 1330 nm
Wavelength 1550 nm 10G	1530 to 1565 nm
Tx power 1310 nm to 2.5G	-5 to +0 dBm
Tx power 1550 nm to 2.5G	-2 to +3 dBm
Tx power 1310 nm 10G	-6 to -1 dBm
Extinction ratio	greater than 8.2 dB (options 111 and 121)
Rx sensitivity 2.5 Gb/s	less than -28 dBm
Rx sensitivity 10G option 1	less than -14 dBm class
Rx wavelength range	1200 to 1600 nm
Ethernet rates	10/100/1000 Mb/s simultaneous
Electrical rates	DSn/PDH supported
Pulse mask	meets ITU-T G.957 and Telcordia GR-253
Channel monitor	up to 192 STS/AU channels
Fibre type	single mode pigtail optics
Spectral width	less than 1.0 nm at -20 dB
Form factor	field portable modular chassis
Standards	SONET and SDH dual standard

PARAMETER	VALUE
Through mode	yes Notes Specs from Agilent J2126A/J2127A Transmission Test Sets datasheet. Confirm optical options (111/120/121), GBIC types, and chassis size on the unit.
Wavelength range	1200 to 1600 nm

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 analysis measurements
- Through Mode testing and electrical pulse mask

Technical Specifications

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PARAMETER

VALUE

Through mode

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Notes

Specs from Agilent J2126A/J2127A Transmission Test Sets datasheet. Confirm optical options (111/120/121), GBIC types, and chassis size on the unit.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.