

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

SAGE INSTRUMENTS

SAGE INSTRUMENTS 930I Communication Test Set

SAGE Instruments 930i Communications Test Set The SAGE Instruments 930i is a portable communications test set with laboratory-grade VF TIMS, full-featured BERT, and analog plus E1 interfaces. It qualifies voice services (MOS/clarity), measures packet-voice impairments, and tests echo cancellers. Analog 2-wire/4-wire TIMS covers level/frequency 20 Hz to 5000 Hz, psophometric and 3 kHz-flat noise, noise-to-ground, SNR, and return loss. Digital side is 2.048 Mbit/s E1 (PCM30/31, CRC4, HDB3/AMI) with drop/insert/monitor. Signaling includes Loop/Ground Start, E&M I-V, DP/MF/DTMF, R1, and R2. The SAGE Instruments 930i is a portable communications test set with laboratory-grade VF TIMS, full-featured BERT, and analog plus E1 interfaces. It qualifies voice services (MOS/clarity), measures packet-voice impairments, and tests echo cancellers. Analog 2-wire/4-wire TIMS covers level/frequency 20 Hz to 5000 Hz, psophometric and 3 kHz-flat noise, noise-to-ground, SNR, and return loss. Digital side is 2.048 Mbit/s E1 (PCM30/31, CRC4, HDB3/AMI) with drop/insert/monitor. Signaling includes Loop/Ground Start, E&M I-V, DP/MF/DTMF, R1, and R2. Voice quality and VoP troubleshooting; echo-canceller design verification; inter-office and CPE qualification; OEM production; laboratory standard TIMS/BERT; hybrid analog/E1 networks.



MODEL

**SAGE
INSTRUMENTS
930I**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

930I

LISTING

<https://aumictechlabs.com/products/930i-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The SAGE INSTRUMENTS 930i is a versatile communications test set engineered for voiceband testing across analog and digital trunks, cellular test lines, and hybrid networks. It combines laboratory-grade VF TMS (Transmission Impairment Measuring Set) with full BERT (Bit Error Rate Tester) capabilities, RS-232 control, and dual-channel simulation and monitoring. Deploy it at IADs, gateways, switchrooms, PBX closets, demarcation points, and production environments to isolate complex signaling faults and validate transmission performance.

Technical Specifications -

- # Transmission Measurement Level and frequency measurements from 20 Hz to 5000 Hz
- Psophometric and 3 kHz flat-weighted noise measurements
- Signal-to-noise ratio (SNR) and noise-to-ground quantification
- Return loss for 2-wire and 4-wire topologies
- Frequency sweep capability
- Programmable dual-tone generator (level, frequency, cadence)
- Programmable echo canceller
- disabler tone 100/102 test line support
- # E1 Digital Interface 2.048 Mbit/s E1 support with PCM30/31, CRC4, and HDB3/AMI line codes
- Internal high-stability clock or loop-timed synchronization
- Terminate, dual-direction drop, insert, and monitor modes
- Real-time A, B, C, and D bit display and control
- aLaw and uLaw encoding
- Full-rate and 64 kbit/s BERT measurements per G.821 and M.2100
- Alarm and error generation/detection
- DS0 loopback with gain control
- Protected monitor point voltage measurement
- # Analog Signaling Loop start and ground start (2-wire/4-wire) with contact closure, normal, and reverse battery
- E&M Types I-V with send-M and send-E signaling
- Dry contact, wink signaling with detection and timing
- Delay and immediate dial modes
- DP, MF, and DTMF addressing
- # E1 Signaling POTS off-hook line and DTMF register signaling
- R1 support

Key Features Simultaneous dual-side monitoring and simulation isolates signaling and transmission faults in complex networks. RS-232 control enables remote operation and integration with test automation frameworks. Hybrid analog/digital architecture supports legacy voiceband circuits and modern digital trunks without topology constraints.

Typical Applications Telco gateway troubleshooting, PBX/IAD commissioning, carrier demarcation acceptance testing, cellular interconnect validation, production line regression testing.

Features & description

From manufacturer datasheet

Features

- VF TMS 20 Hz-5000 Hz; 2-wire and 4-wire • E1 2.048 Mbit/s dual-direction drop/insert/monitor • BERT full-rate and 64 kbit; a-law/u-law • Signaling Loop/Ground Start, E&M I-V, R1/R2, DTMF/MF/DP • RS-232 control; store/recall 999 results; 14 × 6 × 12.5 in • Options: advanced TMS, G.168, packet voice, fractional E1, MFC-R2

930I Characteristics / Specifications

PARAMETER	VALUE
Model	930i
Manufacturer	SAGE Instruments
Instrument Type	Communications Test Set / VF TIMS / E1 BERT
Series	930i
Alias	930j; 930l; SAGE 930i
Analog Interfaces	2-wire and 4-wire
Level Frequency Range	20 Hz to 5000 Hz
Noise Weighting	psophometric and 3 kHz flat
Noise To Ground	yes
Signal To Noise	yes
Return Loss	2-wire and 4-wire
Frequency Sweep	yes
Dual Tone Generator	level, frequency, cadence
Echo Canceller Disabler Tone	yes
E1 Rate	2.048 Mbit/s
E1 Framing	PCM30/31, CRC4
E1 Line Code	HDB3/AMI
E1 Impedance	120/75 ohm
E1 Modes	terminate; dual-direction drop, insert, or monitor
Clock	internal high-stability or loop
ABCD Bits	real-time display and control
PCM Encoding	a-law or u-law
BERT	full rate and 64 kbit
DSO Loopback	with gain control
Alarms	generate and detect

PARAMETER	VALUE
Analog Signaling	Loop Start, Ground Start, E&M Types I-V, Dry, wink, delay/immediate dial, DP/MF/DTMF
Digital Signaling	POTS/DTMF, R1, R2 (Simple/ITU/country), clear channel, R2 protocol analyzer
Com Port	RS-232 EIA 9-pin
Power	120/240 VAC (some units 115 VAC only)
Size	14 in x 6 in x 12.5 in
Rack	optional rack mount kit
Results Memory	store and recall up to 999
Clock Stamp	real-time clock
Audio	speaker and volume; telset and butt-set interfaces
E1 LEDs	span status on front
Certifications	UL, CE
Base Option	7930-2000-01
Advanced TIMS Option	7930-2100-01
Voice Circuit Option	7930-2110-01
Next Gen Voice Option	7930-2130-01
G168 Option	7930-2068-01
Fractional E1 Option	7930-2051-01
Ship Weight Listing	15 lbs typical Notes Specs from SAGE 930i brochure and product listings. North American T1 930 variants differ from the international E1 930i. Confirm E1 versus analog-only options, 120 versus 240 Vac, and installed option packs.
Options	advanced TIMS, G.168, packet voice, fractional E1, MFC-R2

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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Model	930i
Manufacturer	SAGE Instruments
Instrument Type	Communications Test Set / VF TMS / E1 BERT
Series	930i
Alias	930i; 930I; SAGE 930i
Analog Interfaces	2-wire and 4-wire
Level Frequency Range	20 Hz to 5000 Hz
Noise Weighting	psophometric and 3 kHz flat
Noise To Ground	yes
Signal To Noise	yes
Return Loss	2-wire and 4-wire
Frequency Sweep	yes
Dual Tone Generator	level, frequency, cadence
Echo Canceller Disabler Tone	yes
E1 Rate	2.048 Mbit/s
E1 Framing	PCM30/31, CRC4
E1 Line Code	HDB3/AMI
E1 Impedance	120/75 ohm
E1 Modes	terminate; dual-direction drop, insert, or monitor
Clock	internal high-stability or loop
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BERT	full rate and 64 kbit
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PARAMETER	VALUE
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Digital Signaling	POTS/DTMF, R1, R2 (Simple/ITU/country), clear channel, R2 protocol analyzer
Com Port	RS-232 EIA 9-pin
Power	120/240 VAC (some units 115 VAC only)
Size	14 in x 6 in x 12.5 in
Rack	optional rack mount kit
Results Memory	store and recall up to 999
Clock Stamp	real-time clock
Audio	speaker and volume; telset and butt-set interfaces
E1 LEDs	span status on front
Certifications	UL, CE
Base Option	7930-2000-01
Advanced T1MS Option	7930-2100-01
Voice Circuit Option	7930-2110-01
Next Gen Voice Option	7930-2130-01
G168 Option	7930-2068-01
Fractional E1 Option	7930-2051-01
Ship Weight Listing	15 lbs typical

Notes

Specs from SAGE 930i brochure and product listings. North American T1 930 variants differ from the international E1 930i. Confirm E1 versus analog-only options, 120 versus 240 Vac, and installed option packs.

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.