930i

MOST VERSATILE NEX GEN AND LEGACY TEST SET



The 930i is a multi-functional portable unit that features a powerful Next Generation Voice Test Suite. If offers a laboratory quality VFTIMS, a fullfeatured BERT, RS-232 and a host of other functions as standard equipment.

The 930i's versatile signaling features enables it to simulate, test and monitor at almost any point in a hybrid network. It is equally at home at the IAD, gateway, switchroom, PBX closet, customer or carrier DEMARC, in the lab or on the production floor. Its ability to simulate and monitor both sides of a connection makes it an indispensable troubleshooting tool.

- Perform voice processing design verification
- Characterize & Test Echo Cancellers
- Troubleshoot and Quantify packet voice impairments

930i Features a Powerful Next Generation Voice Suite

CAPABILITIES

Qualify Voice Services

- Test the networks ability to transmit distortion free voice in both directions
- Provides Clarity Merit Score (MOS)
- Measures audio level
- Measures background noise

Bad MOS Scores?

- Detect and measure packet loss
- Detect and measure voice clips
- Detect and measure noise hits

Isolate echo problems

- Detect and measure echo
- Verify echo cancellation

Verify End-to-End Network Performance and Provisioning

- Measure network delay
- Measure jitter buffer performance
- Verify codec type
- Measure call completion time (post dial delay)

930i Transmission Features

- Level and Frequency (20Hz 5000Hz)
- Noise (Psophometric and 3Khz Flat Weighted)
- Noise-to-Ground
- Signal-to-Noise Ratio
- Return Loss (2— and 4—wire)
- Frequency Sweep
- Dual Tone Gen (level, freq, cadence)
- Echo Canceller Disabler Tone

continued



930i

MOST VERSATILE LEGACY AND NEXT GENERATION TEST SET

CAPABILITIES

continued

930i Digital Features

- 2.048 Mbit/s E1 (PCM30/31, CRC4, HDB3/AMI)
- Internal High Stability Clock or Loop
- Terminate and dual direction drop, insert or monitor modes
- Real time display & cntrl of ABCD bits
- aLaw or uLaw encoding
- Voltage measurement
- Full rate and 64kbit BERT
- Generate and detect Alarm
- DS0 Loop back with gain control

930i Analogue Signaling Capabilities

- Loop Start (contact/battery)
- Ground Start (contact/battery)
- E&M Types I-V (Send-M, Send-E)
- Dry (no supervision)
- Wink Detection and Timing
- Delay and Immediate Dial
- DP, MF, and DTMF addressing

930i Signaling Capabilities

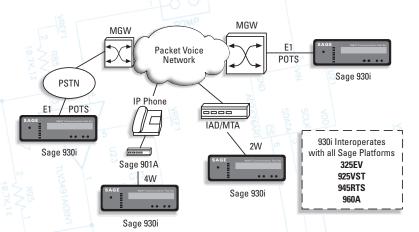
- POTS, DTMF signaling
- R1 (wink start signaling, MF signaling)
- R2 (Simple, ITU, Country Spec)

R2 Protocol Analyzer



930i APPLICATIONS

Voice Quality • Echo Canceller • Computer Telephony • Qualification Manufacturing • Laboratory Standard



PHYSICAL CHARACTERISTICS

- **E**1:120/75 Ω
- Telset & Butt-Set Interfaces
- E1 span status LEDs
- Com Port: RS-232 (EIA 9-Pin)
- Power 120/240VAC
- Size: 14"x6"x12.5"
- Available with rack mount kit

OTHER FEATURES

- Real-time clock for time stamping
- Store and Recall up to 999 Results
- Speaker & Volume Control Certifications: UL, CE

OPTIONS

7930-2000-01 Base Unit

7930-2100-01 Advanced TIMS Package

7930-2110-01 Voice Circuit Test Package

7930-2130-01 Next Gen Voice Test Pack

7930-2013-01 Ring Generator & Load

7000 0040 04 14/511 1 17/140

7930-2040-01 Wideband TIMS

7930-2011-01 ATME 0.22

7930-2154-01 23 Tones

7930-2055-01 Echo Sounder

7930-2056-01 Echo Gen and Test Line

7930-2068-01 ITU G.168 Suite

7930-2075-01 Packet Voice Impair Test

7930-2076-01 SMOS Packet Voice Test

7930-2070-01 Complex Impedance

7930-2051-01 Fractional E1

7930-2150-0X OPT 150, MFC-R2

ACCESSORIES

7901-0000-01 Universal Audio Adapter

9400-2425-01 Talon 93X T-TIMS GUI

For the most current information please visit www.sageinst.com/930.html

