

SG80 AM Stereo - FM Stereo Analyzer Patented

Pinpoint Any Receiver Problem From The Antenna To The Output With The Only Fully Integrated AM Stereo - FM Stereo Analyzer!



- Every signal you need to troubleshoot and performance test any AM Stereo or FM Stereo receiver
- Rock-solid digital tuning gives you fast, accurate, channel-by-channel control
- Microprocessor calibrated attenuator provides accurate signal levels for all your testing and troubleshooting needs
- Patented analyzing signals let you use the same troubleshooting techniques for both AM Stereo and FM Stereo receivers
- Exclusive tuneable IF sweep system allows you to dynamically analyze the latest FM IF stages
- Isolated audio drive signal lets you troubleshoot from the stereo decoder to the audio amplifier
- High quality signals give you confidence the receiver is operating at peak performance
- Automate your testing with optional IEEE 488 or RS232 computer interface accessories

Audio
Analyzing

1-800-SENCORE (736-2673)

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Every FM and AM signal you need. Isolating problems to a single circuit separates an analyzer from a test generator. Only an analyzer helps you identify the source of the problem.

The SG80 AM Stereo - FM Stereo Analyzer provides every FM and AM analyzing signal you need to track down any receiver problem - from the antenna to the outputs. You get all the FM and AM signals you need through one output jack, making it easy to use. It's a complete analyzer.

Rock-solid digital tuning. Digital tuning is virtually standard in modern receivers. The only way to properly test digital receivers is with a signal more accurate than the receiver's tuning system.

The SG80's exclusive digital generator tunes in the same steps as a digital receiver for fast, efficient testing. You get a crystal referenced signal that you know is on-frequency to quickly identify tuner problems. Two-speed tuning simplifies AFT testing and a special wraparound feature makes linearity checks a snap.

Microprocessor calibrated attenuator. Tests of receiver sensitivity, FM muting, and auto-seek circuits require precise signal levels at all frequencies. From less than one microvolt to 250,000 microvolts, the SG80 gives you accurate signal levels at every frequency. The microprocessor-calibrated attenuator supplies the precision you need for setting exact levels with confidence.

Patented analyzing signals. FM and AM receivers have nearly identical circuits, yet most generators force you to use different troubleshooting techniques for each. Wouldn't it be easier to use the same tests and methods for both?

The SG80 and its integrated FM and AM analyzing signals

give you smart troubleshooting. It uses the same troubleshooting methods, audio frequencies, and modulation features to make FM and AM troubleshooting look alike.

Exclusive tuneable IF sweep system. Many high quality receivers now have multibandwidth IF sections. If you don't have proper IF alignment equipment, you may be sending out mistuned receivers.

You can positively test and align all FM IF circuits with the SG80's exclusive tuneable FM IF generator. You get the frequency range you need to ensure your customers the cleanest sound possible.

Isolated audio drive signal. What do you do once you've narrowed a problem to a stage after the stereo decoder? The SG80

audio injection analyzing signal is phase-locked to the RF and IF signals to quickly pinpoint audio problems. This dynamic drive signal is protected and isolated so you can divide and conquer with confidence.

High quality signals. Today's receivers sound better than ever. And since off-air signals aren't stable enough to use for testing, you need a high quality signal source for reliable test results.

All of the SG80's analyzing signals are high performance for high quality testing starting from the antenna. A patented FM stereo multiplex system, with separation greater than 63 dB, makes the SG80 your ultimate receiver analyzing tool. High quality signals give you high quality troubleshooting.

Automated testing. Most servicers don't have the time to perform complete performance tests on every receiver they service. Automate your SG80 testing with the IB72 IEEE 488 or IB78 RS232 computer interface accessories and let the SG80 do the work automatically. You'll save valuable time and have documentation for later use.



Condensed Specifications

Patent: #4,823,390

FM RF Generator - Tuning Range: 87.9 to 108 MHz. TUNING STEPS: Coarse: 200 kHz steps/Fine: 10 kHz steps. ACCURACY: ± 20 PPM. MODULATION PERCENTAGE: 100% = ± 75 kHz Deviation ± 2 kHz. MODULATION DISTORTION: < or equal to 0.01% THD with a 1 kHz sine wave @100% mod. STEREO SEPARATION: ≥ 63 dB @ 98.1 MHz and 1 kHz sine wave modulation.

FM IF Generator - (Spurs guaranteed from 10.2 MHz to 11.2 MHz). TUNING RANGE: 9.7 to 11.7 MHz. TUNING STEPS: Coarse: 100 kHz/Fine: 10 kHz. ACCURACY: ± 20 PPM. MODULATION PERCENTAGE: 100% = ± 75 kHz deviation ± 2 kHz. MODULATION DISTORTION: < or equal to 0.01% THD with a 1 kHz sine wave @100% mod.

FM Multiplex Generator - PILOT FREQUENCY: 19 kHz ± 2 Hz. Pilot Level: 0 to 11% of overall modulation continuously variable. Stereo Separation Through Composite: ≥ 65 dB at 1 kHz.

SCA - FREQUENCY: 53 to 95 kHz internally adjustable. Preset at factory to 67 kHz. Accuracy of Carrier: ± 1.5 kHz. MODULATION: 2.5 kHz audio sine wave. MODULATION DISTORTION: < or equal to 3% at 2.5 kHz.

FM Sweep Generator - SWEEP WIDTH: ± 600 kHz. CENTER MARKER FREQ: Selectable between 9.7 and 11.7 MHz in 100 kHz steps (Coarse) and 10 kHz steps (Fine). ACCURACY: ± 20 PPM. AMPLITUDE: 1.2 VPP Minimum. MARKERS: Every 100 kHz from center marker to ± 600 kHz.

AM RF Generator - FREQUENCY RANGE: 520 kHz to 1720 kHz minimum. TUNING STEPS: COARSE: 10 kHz steps/Fine: 1 kHz steps. ACCURACY OF CARRIER: ± 20 PPM. MODULATION PERCENTAGE: 0% to 125% ± 2 % in Mono, L-R, L-R, and Stereo 0% to 65% in R and L. MODU-

LATION DISTORTION: < or equal to 0.5% THD with a 1 kHz audio sine wave signal @ 30% mod.

AM IF Generator - FREQUENCY RANGE: 200 to 500 kHz. TUNING STEPS: Coarse: 10 kHz steps/Fine: 1 kHz steps. ACCURACY OF CARRIER: ± 20 PPM. MODULATION PERCENTAGE: 0% to 125% ± 2 % in Mono, L-R, L-R, and Stereo 0% to 65% in R and L.

C QUAM AM Stereo - < or equal to 0.5% with a Mod. Dist. 1 kHz audio sine wave signal @ 30% mod. SUB-CHANNEL MOD. DIST.: < or equal to 0.5% with a 1 kHz audio sine wave signal @ 30% mod. STEREO SEPARATION: \geq or equal to 35 dB from 200 Hz to 7.5 kHz at 50% modulation. ID PILOT FREQUENCY: 25 Hz ± 0.25 Hz.

RF/IF/MPX Attenuator - RANGE: 0 to 120 dB Continuously Variable (0.27 μ V to 0.27V). ACCURACY: ± 1 dB at 98.1 MHz at 65 dB; ± 1.5 dB over 20 dB; ± 120 dB ranges, ± 2.5 dB over 0 dB range. OUTPUT IMPEDANCE: 75 Ohm RF, 1 k Ohm MPX. OUTPUT PROTECTION: Protected from externally applied voltages up to ± 400 VDC + Peak AC.

Audio Output - FREQUENCIES: 0Hz, 400 Hz, 1 kHz, and 5 kHz, ± 20 PPM Sine wave and Square-wave. SINEWAVE DISTORTION: $\leq 0.02\%$ THD at 1 kHz into 100 ohms. OUTPUT AMPLITUDE: 0 to 3 VPP continuously variable into 100 ohms. OUTPUT IMPEDANCE: 100 ohms.

General - POWER: 105-130 VAC, 60 Hz. SIZE: 7" x 14" x 7.6" (17.9 x 35.8 x 42.5 cm) HWD. WEIGHT: 20 lbs (10.8 kg).

THE CHOICE SYSTEMS