

AM/FM Synthesized Signal Generator



LG 3236

- RF Frequency Ranges from 100 kHz to 170 MHz
- Carrier Frequency Locks to ± 5 ppm Reference Oscillator
- Electronic Attenuator for RF Output Extends Service Life
- Output Level Ranges from -20 dB μ to 126 dB μ in 0.1 dB Steps
- FM Stereo Modulator is Standard

The LG 3236 Synthesized Signal Generator ranges from 100 kHz to 170 MHz and provides FM and AM modulation. A 5 ppm reference oscillator, ensures stable RF carrier frequency point.

Electronic step attenuation, extends repeatability and service life for the RF output while eliminating switching noise. RF output level ranges from -20 dB μ to 126 dB μ in 0.1 dB steps. This combined with standard GPIB interface makes the unit a natural for automated production and inspection applications.

- Keypad Sets Frequency, Output Level and Modulation Factors
- 100 Presets Store Frequency, Output Level, and Modulation to Internal Memory
- GPIB IEEE - 488 Interface is Standard
- Simultaneous FM/AM Modulation (Option 70)

GPIB programming is expedited by using the 100 presets to store frequency, output level, modulation deviation and or depth, stereo pilot with level to internal memory and just recalling the presets as needed for the test routine. FM stereo separation is 55 dB or better and distortion is 0.05% or less. Simultaneous FM/AM modulation, factory option 70 adds another modulation oscillator and the simultaneous FM/AM modulation includes different modulation frequencies.

key specifications

FREQUENCY

Range

100 kHz to 170 MHz

Resolution

100 Hz (100 kHz to 39.9999 MHz)
1 kHz (40 MHz to 170 MHz)

Accuracy

$\pm 5 \times 10^{-6}$ (≥ 500 kHz)
 $\pm (5 \times 10^{-6} + 1 \text{ digit})$ (< 500 kHz)

OUTPUT LEVEL

Range

-20.0 dB μ to 126.0 dB μ

Output Level Accuracy

± 1 dB (output ≥ 0 dB μ)
 ± 1.5 dB (output < 0 dB μ)

Impedance

50 Ω , VSWR $\leq 1.4:1$

Spurious Output

≤ -30 dBc or better

MODULATION

FM MODULATION

Deviation

0 to 200 kHz (≥ 2 MHz)
0 to 0/10 of carrier frequency
(< 2 MHz)

Modulation Accuracy

\pm (reading $\times 0.03 + 0.8$) kHz

Distortion

$\leq 0.05\%$ (76 to 108 MHz)
 $\leq 0.1\%$ (other frequencies)

Residual FM

≥ 78 dB S/N at 75 kHz deviation

FM STEREO

Separation

≥ 55 dB

Mode

MAIN, SUB, L, R

Pilot Signal

19.0 kHz ± 1 Hz

Deviation

0 to 10.0 kHz

Accuracy

\pm (reading $\times 0.1$ to 0.5) kHz

AM MODULATION

Depth

0 to 80.0 % (500 to 2,000 kHz)
0 to 60.0 % (Other frequencies)

Accuracy

\pm (reading $\times 0.1 + 1$) %

Distortion

≤ 0.5 % (150 kHz to 2 MHz)
 ≤ 1.5 % (Other frequencies)

Residual AM

≥ 55 dB

INTERNAL MODULATION

Frequency

400 Hz, 1 kHz

Accuracy

± 3 %

EXTERNAL MODULATION

Frequency Range

FM: 20 Hz to 100 kHz
AM: 20 Hz to 10 kHz

Flatness

Within ± 1 dB (1 kHz reference)

Preset

Up to 1000 presets

RF Leakage

Low enough not to cause measurement interference under 0 dB μ (1 μ V) conditions.

Remote Control

All front panel switches (except power switch) can be remotely controlled.

GPIB

Provided as standard

POWER REQUIREMENTS

100, 120, 220, 240 V ac ± 10 %, 50/60 Hz 40 VA

PHYSICAL

Size (W x H x D)

16 $\frac{3}{4}$ x 4 x 11 $\frac{3}{4}$ in
426 x 100 x 300 mm

Weight

17.2 lbs., 7.8 kg

ENVIRONMENTAL

Operating Temperature

0 to 40° C

Operating Humidity

< 85 % (without condensation)

Spec-Guaranteed Temperature

10 to 35° C

Spec-Guaranteed Humidity

< 85 % (without condensation)

SUPPLIED ACCESSORIES

- 1 BNC - BNC 3D2V (50 Ω) cable (1 m)
- 1 Power Cord
- 1 Fuse