

# VIDEO TV SIGNAL GENERATOR

The LG 226 TV Signal Generator modulates an analog TV signal in VSB for the PAL, NTSC and SECAM systems.

CE  
Upon request

RoHS



## LG 226 TV SIGNAL GENERATOR

### GENERAL

The LG 226 TV Signal Generator provides the capability to modulate an analog TV signal in VSB-AM format applicable to the PAL, NTSC, and SECAM broadcasting systems.

The TV signals of VHF, UHF, and CATV channels can be generated by applying the external composite video signal and audio signal.

The full-field color bars and line sweep signals, and 1 kHz/400 Hz audio signals can also be generated.

This instrument can also be used as an analog TV signal modulator of the LT 450 Video Signal Generator since this instrument provides the LT 450 control capability.

### FEATURES

#### ■ Usage

Suitable to check the video and sound of analog TV.

#### ■ RF output frequency

The RF frequency can be set from 30 MHz to 950 MHz in 50 kHz steps.

The channel table is provided to set the RF signal in channel instead of the frequency.

#### ■ Output attenuator

Highly reliable electronic attenuator is used.

#### ■ Video modulation

The VSB (Vestigial Sideband) modulation is used to eliminate the interference to of adjacent channels.

#### ■ Sound modulation

Applicable to both FM modulation and AM modulation (L method).

#### ■ Preset function

Up to 100 front panel settings can be stored and recalled.

#### ■ Remote control function

The preset conditions stored in the preset memory can be selected by specifying the address in INC, DEC, and RESET operation via the REMOTE control connector.

#### ■ GPIB function

All front panel keys except the POWER switch can be remotely controlled since the GPIB interface (conforming to IEEE488.1) is provided as standard.

#### ■ LG 226 REAR PANEL



# SPECIFICATIONS

**LG 226**

## RF Output

**Frequency Range:** 30 MHz to 950 MHz  
**Frequency Resolution:** 50 kHz  
**Frequency Accuracy:** 10 ppm  
**Frequency Switching Time:** Within 100 ms  
**Frequency Setting**  
**Channel Mode:** Setting with a built-in channel table  
**Frequency Mode:** Setting an arbitrary frequency  
**Output Impedance:** 75 Ω  
**Output Connector:** BNC  
**Output Level Range:** -80 to 0 dBm (0 dBm max.)  
**Level Resolution:** 1 dB  
**Output Level Accuracy:** ±2 dB (0 to -9 dBm)  
 ±3 dB (-10 to -80 dBm)  
**Spurious:** Within -30 dBc (Harmonics)  
 Within -40 dBc (Non-Harmonics)

## Video Signal

**Modulation System:** Amplitude modulation of the VSB (vestigial sideband) system according to a broadcast system

### Modulation

**At the time of built-in channel table setting:**  
 87.5 %±3 % (Negative modulation)  
 97.0 %±3 % (Positive modulation)  
**At the time of arbitrary setting:**  
 0 to 100 % (in 0.5 % steps)

### Modulation Frequency Band

**At the time of built-in channel table setting:**  
 4.2 MHz/5.0 MHz/6.0 MHz (Depends on a broadcast system)  
**At the time of arbitrary setting:**  
 4.2 MHz/5.0 MHz/6.0 MHz

**Modulation Frequency Flatness:** ±1 dB

**Input Impedance:** 75 Ω

**Input Connector:** BNC

**Reference Input Level:** 1 Vp-p

**Spectrum Polarity:** Positive (upper sound wave)

**Built-in Pattern:** Full-field Color Bar (NTSC/PAL)  
 Line sweep (at 100 % modulation: 4.2 MHz) (NTSC/PAL)

## Sound Signal

### Carrier Frequency

**At the time of built-in channel table setting:**  
 4.5 MHz/5.5 MHz/6.0 MHz/6.5 MHz  
 (Depends on a broadcast system)  
**At the time of arbitrary setting:**  
 4.5 to 6.5 MHz (in 0.5 MHz steps)

### Video Sound Ratio

**At the time of built-in channel table setting:**  
 -6 dB/-7 dB/-10 dB (Depends on a broadcast system)  
**At the time of arbitrary setting:**  
 -30 to 0 dB (in 1 dB steps)

**Modulation Types:** FM/AM (L System) (Depends on a broadcast system at the time of built-in channel table setting)

### Frequency Deviation

**At the time of a built-in channel table Setting:**  
 15 kHz/30 kHz (equivalent to 60 % of the maximum deviation for each broadcasting system)  
**At the time of an arbitrary setting:**  
 0 to 100 kHz (in 1 kHz steps)

## Modulation (AM)

**At the time of built-in channel table Setting:**  
 60 %  
**At the time of arbitrary setting:**  
 0 to 60 % (in 1 % steps)

## Pre-Emphasis

**At the time of built-in channel table setting:**  
 75 μs/50 μs (Depends on a broadcast system)  
**At the time of arbitrary setting:**  
 75 μs/50 μs/OFF

**Modulation Frequency Response:** 40 Hz to 100 kHz

**Modulation Frequency Flatness:** ±1 dB

**Reference Input Level:** 0 dBm (0.775 Vrms)

**Input Impedance:** 600 Ω

**Input Connector:** BNC

**Built-in Sound Signal:** Sine wave 400 Hz/1 kHz

\* The modulation system cannot be selected at the time of channel mode.

## Preset

**Function:** Up to 100 sets of panel settings can be stored and recalled.

## GPIO

**Function:** Enables the key operations of the front panel except a power switch.  
**Connector:** 24-pin rectangular connector 57LE-20240-7700D35G (DDK) or equivalent

**Corresponding Standard:** ANSI/IEEE Std 488.1-1987

## REMOTE

**Function:** Enables the INC, DEC, and RESET operations of the preset memory.  
**Connector:** 14-pin rectangular connector 57LE-4014-7700 (DDK) or equivalent  
**Input Level:** TTL

## RS232C

**Function:** Controls the Video signal generator LT 450, Selects the INC, DEC, or RESET/video format which are related to the PRESET-MEMORY.  
**Connector:** 9-pin D-Sub (M)  
**Signal Format:** Bidirectional serial data

## Environmental Conditions

**Operating Temperature:** 0 to 40 °C  
**Operating Humidity:** ≤85 %RH (without condensation)  
**Operating Environment:** Indoor use  
**Operating Altitude:** Up to 2,000 m  
**Overvoltage Category:** II  
**Pollution Degree:** 2

## Power Requirements

**Voltage:** AC90 to 250 V  
**Power Frequency:** 50/60 Hz  
**Power Consumption:** 35 W max.

## Dimensions

426(W) X 88(H) X 400(D) mm  
 (excluding projections)

## Weight

5.6 kg

## Accessories

AC power cord..... 1  
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