

# Leader

## LT4610 SYNC GENERATOR



### / General

The LT4610 is 1U full-rack size sync signal generator that can output triple-rate SDI (3G-SDI/HD-SDI/SD-SDI) signals. It employs two power supply units for redundant operation to accommodate power supply failures. The genlock function for external sync signals enables SDI signals, six sets of analog black sync signals, and audio word-clock signals to be output synchronously. The genlock function is equipped with a STAY IN SYNC function that maintains the phase when errors occur in the input signal, making it possible to construct stable systems.

In addition to test pattern output including color bars and SDI check fields, the LT4610 can embed ID characters, QVGA logo marks, safety area markers, and embedded audio in SDI signal output.

### Triple-rate SDI Ready

SDI signal output supports 3G-SDI (level A and level B), HD-SDI (including dual link), and SD-SDI. There are two independent outputs of SDI signal output terminals. The pattern and phase can be set separately for each. (However, only a single output is available for 3G-SDI level B and HD dual link.)

### ID Character Overlay

ID characters can be overlaid at any position on the display. In addition, ID characters can be scrolled horizontally or displayed in a blinking state for checking whether the display has frozen.

### Logo Mark Overlay

A logo mark converted from bitmap can be overlaid at any position on the display at a standard 320 (dot) × 240 (line) size (QVGA size).

### Safety Area Markers

90% and 80% safety area markers can be overlaid on the display. For 3G-SDI and HD-SDI, a 4:3 aspect marker can be overlaid.

### Pattern Scrolling

Equipped with a function for scrolling patterns in eight directions. The speed can also be adjusted.

### Audio Embedding

The LT4610 can embed 32 channels (link A, link B, 4 channels each × 4 groups) of audio signals for 3G-SDI level B and 16 channels (4 channels × 4 groups) of audio signals for 3G-SDI level A, HD-SDI, and SD-HDI. The frequency, level, and the like can be set for each channel.

### Lip Sync Patterns (3G-SDI level A, HD-SDI, SD-SDI only)

The LT4610 can output lip sync patterns in which the video and audio are synchronized. In combination with a waveform monitor that features a lip sync function, such as the Leader's LV5770A, it is possible to accurately measure the offset between the video and audio in SDI signal transmissions.

### Genlock Function

The LT4610 can synchronize with NTSC/PAL black burst signals and HDTV tri-level sync signals. NTSC/PAL black burst signal with field reference pulse and NTSC black burst signal with 10 field IDs are also supported. A STAY IN SYNC function is available in case errors occur at the genlock input. The LT4610 also has a slow lock function to reduce the shock that occurs when genlock is performed again based on STAY IN SYNC.

### Analog Black Sync Signal Output

The LT4610 is equipped with six independent analog black sync signal and HDTV tri-level signal outputs, which makes it possible to vary the timing. NTSC/PAL black burst signal with field reference pulse and NTSC black burst signal with 10 field IDs are also supported.

### Word-Clock Signal Output

The LT4610 can output a 48 kHz word-clock signal synchronized with video signals.

### AES/EBU Signal Output

The LT4610 can output a 48 kHz AES/EBU signal synchronized with video signals. It is also equipped with a muted AES/EBU signal output.

### Real Time Clock

The LT4610 can output a 48 kHz word-clock signal synchronized with video signals.

### Ethernet

SNMP is supported as standard. When an error is detected, a TRAP is issued.

### Preset Memory Function

Up to 10 preset memories can be saved. Convenient registered presets can be recalled during operation. The LT4610 can be started with the same settings every time.

### External Memory Support

Logo data and preset data can be written and saved from the front panel using USB memory devices.

### Redundant Power Supply

Two power supplies are built in to provide redundancy. When errors occur in power supply units, alarms are indicated on the LT4610 panel. Errors can also be output as alarms using SNMP.

LT4610SER01 GPS Option

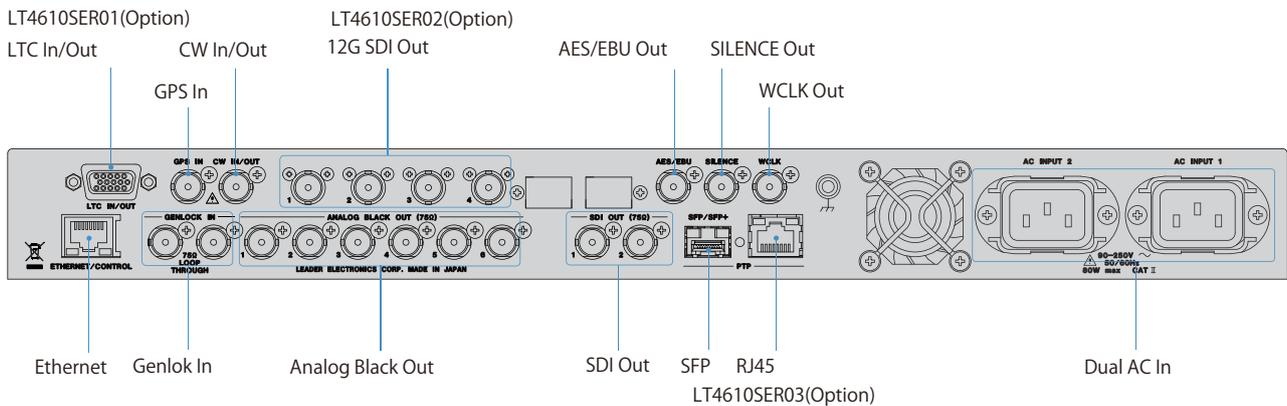
This option adds (1) a GPS lock function, which locks to the frequency and time that can be obtained from GPS, (2) 10 MHz CW lock function, and (3) time code generator function.

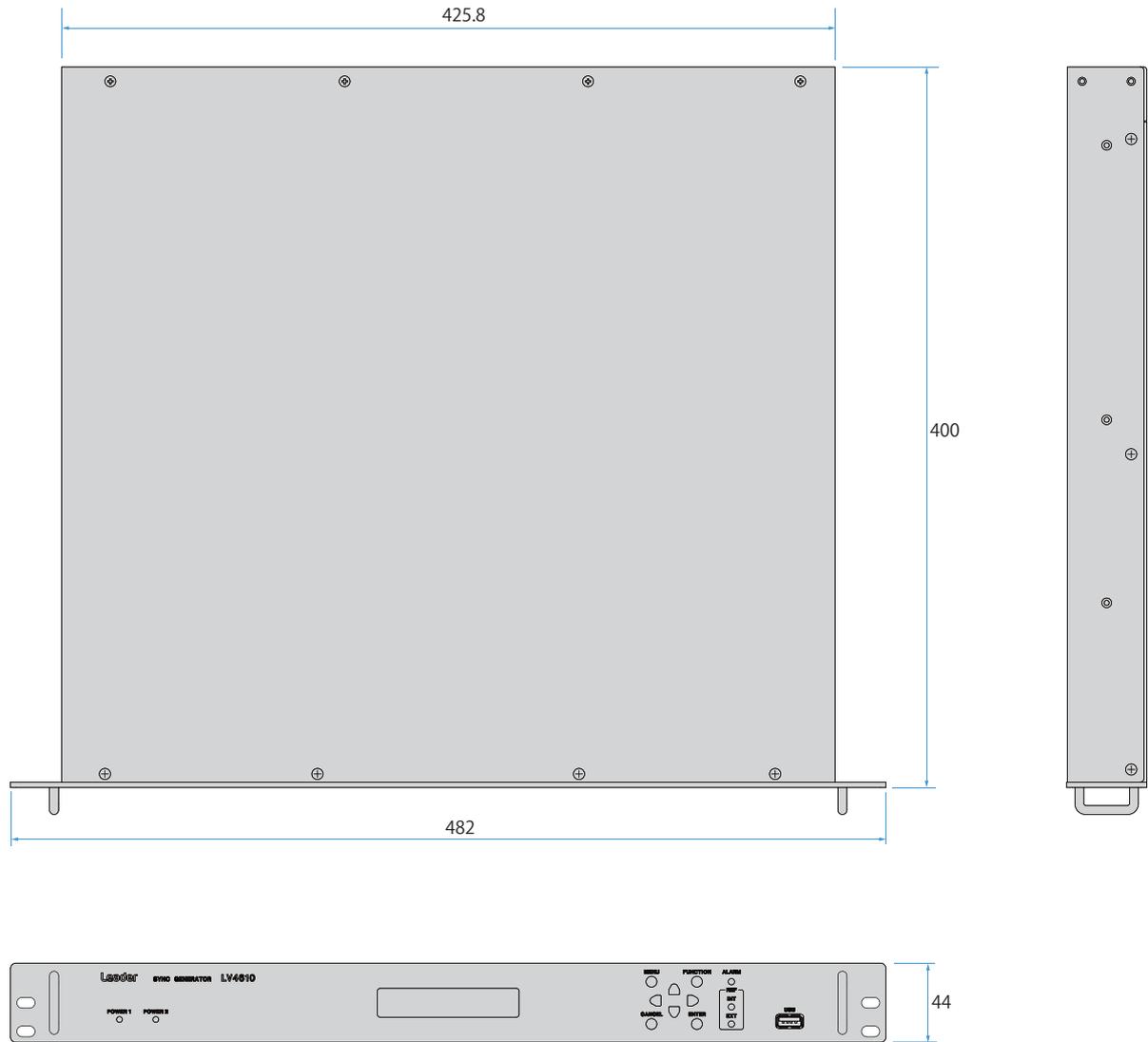
LT4610SER02 12G-SDI Option

The LT4610SER02 12G-SDI Option adds support for 12G-SDI. SDI signal output supports 4K 12G-SDI, 4K 3G-SDI quad, 4K HD SDI quad, 4K 3G dual, 3G-SDI (level A and level B), HD-SDI (including dual link), and SD-SDI. Four SDI signal output connectors are available. The format is the same for all four outputs, but you can set different patterns and phases for each. (However, only two outputs are available for 3G-SDI level B and HD dual link.)

LC2183, LTC CABLE

The LC2183 is a conversion cable used when combining an LT4448 changeover unit and LT4610 sink generator, or the like. It converts a 25-pin D-sub LTC connector to two 15-pin D-sub LTC connectors. It can be used to connect to the PRIMARY and BACKUP connectors of the LT4610. It can also be used to convert to three XLR connectors for LTC output. The cable length is 1.5 m.





Item sold separately

LC2141  
SFP transceiver RJ - 45  
Maker : BLACK BOX  
Model number : LFP415  
Function : 1000BASE-T



LC2144  
SFP + transceiver optical  
Maker : FOIT  
Model number : AFBR-709SMZ  
Function : 850nm, 10GBASE-SR/SW  
Maximum Distance (M) : 300



LC2145  
SFP + transceiver optical  
Maker : FOIT  
Model number : AFCT-739SMZ  
Function : 1310nm, 10GBASE-SR/SW  
Maximum Distance (M) : 10,000



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