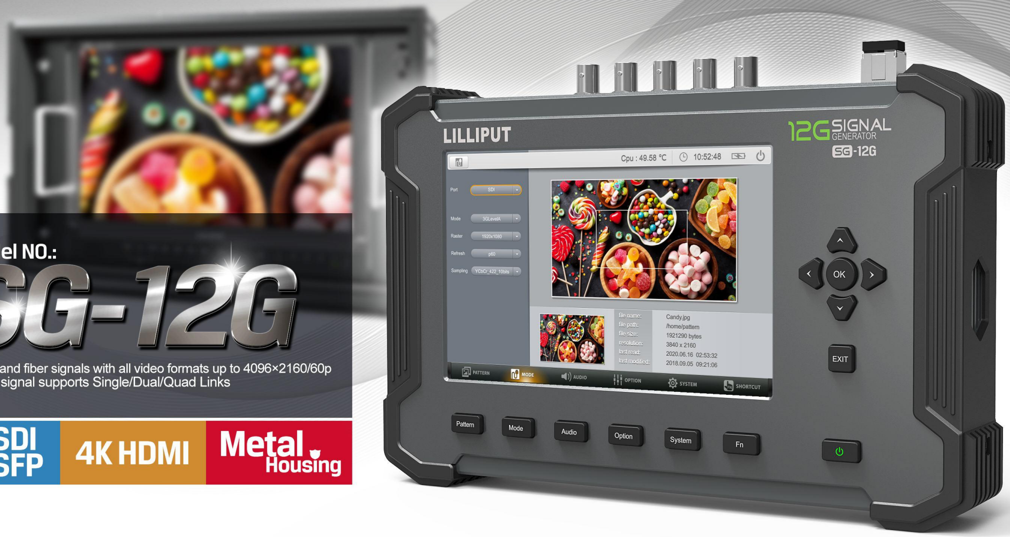
LILLIPUT® 12G-SDI Signal Generator


LILLIPUT
12G SIGNAL GENERATOR
SG-12G
Cpu : 49.58 °C
10:52:48
Port
SDI
Mode
3GLevelA
Raster
1920x1080
Refresh
p60
Sampling
YCbCr_422_10bits
file name:
Candy.jpg
file path:
/home/pattern
file size:
1921290 bytes
resolution:
3840 x 2160
last read:
2020.06.16 02:53:32
last modified:
2018.09.05 09:21:06
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT
OK
EXIT
Pattern
Mode
Audio
Option
System
Fn

Model NO.:

SG-12G

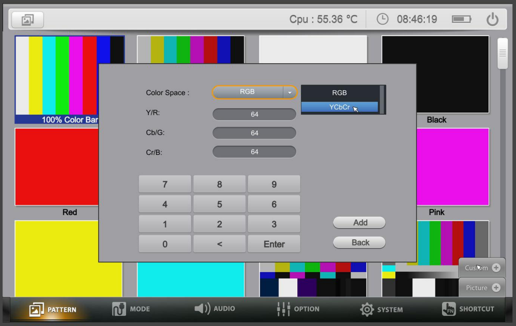
SDI and fiber signals with all video formats up to 4096×2160/60p
SDI signal supports Single/Dual/Quad Links

12G-SDI 12G-SFP | **4K HDMI** | **Metal Housing**

Built-in **5000mAh** battery with about **2.5 hours** working time.

Pattern Measurement

To test color temperature and gray scale of monitor with various types of patterns, such as color bar, monochrome display and customized pictures.


Cpu : 55.36 °C
08:46:19
100% Color Bar
Black
Red
Pink
7
8
9
4
5
6
1
2
3
0
<
Enter
Add
Back
RGB
YCbCr
Custom
Picture
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT

Color Space : RGB
Y/R: 64
Cb/G: 64
Cr/B: 64

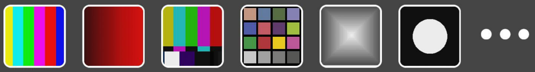
Preset & importable patterns

Custom

Free to create any color picture, based on two differenet color space - - RGB or YCbCr.

Picture

Built-in a plenty of preset patterns, and user-definable pictures imported to the generator to meet various test requirements.



Signal Compatibility

Mode

Mode Options

Raster

Raster Options

Supports SD, HD, 3G, 6G, 12G-SDI and 4K HDMI signals; SDI, Fiber and HDMI signals up to 4K 60Hz. SDI conversion among of different link structures, SQ and 2SI.

Selection among of 12G-SDI/6G-SDI/3G-SDI/HD-SDI/SD-SDI and HDMI signal formats.

Different resolutions options corresponding to different Modes.

Refresh

Refresh Options

Different refresh rates corresponding to different Modes & Raster.

Sampling

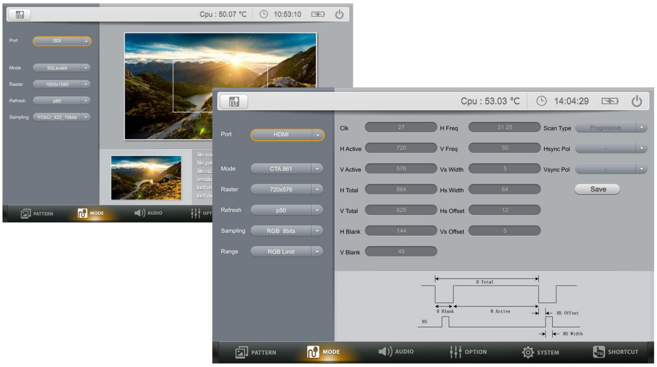
Sampling Options

Different GBR & YCbCr sampling rates based on the above options.

Range

Range Options

Color range can be changed between limit and full.



Cpu : 53.03 °C 14:04:29

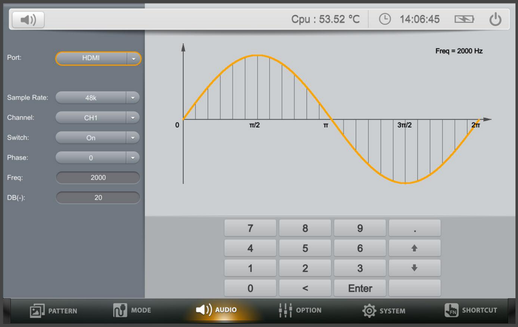
Port: HDMI
Mode: CTA 861
Raster: 720x576
Refresh: p50
Sampling: RGB 8bits
Range: RGB Limit

Clk: 27
H Active: 720
V Active: 576
H Total: 864
V Total: 625
H Blank: 144
V Blank: 49
H Freq: 31.25
V Freq: 50
Vs Width: 5
Hs Width: 64
Hs Offset: 12
Vs Offset: 5
Scan Type: Progressive

Cpu : 50.07 °C
10:53:10
Port
SDI
Mode
3GLevelA
Raster
1920x1080
Refresh
p60
Sampling
YCbCr_422_10bits
Hsync Pol
Vsync Pol
Save
H Total
H Blank
H Active
HS Offset
HS
HS Width
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT

Audio Output

A comprehensive audio output tool supports up to 8 or 16 channels embedded AES/EBU audio, with -60dB to 0dB range. And a 20 to 20000 frequency.



Cpu : 53.52 °C 14:06:45

Port: HDMI
Sample Rate: 48k
Channel: CH1
Switch: On
Phase: 0
Freq: 2000
DB(-): 20

Freq = 2000 Hz

0
π/2
π
3π/2
2π
7
8
9
.
4
5
6
1
2
3
0
<
Enter
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT

Channel

Channel Options

16-channel SDI audio ranges from CH0 to CH15 for optional. 8-channel HDMI audio ranges from CH1 to CH8 for optional.

Switch

Switch Options

Off, On, All Off and All On are optional for 8 or 16-channel audio switch.

Phase

Phase Options

Options among of 0, 90, 180 and 270 for phase.

Freq

Frequency Options

Freq options can be customized from 20 to 20000 by users.

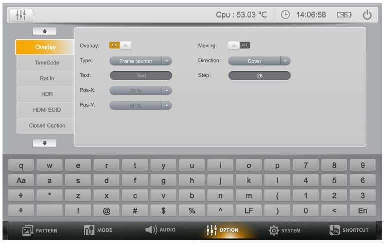
DB(-)

DB(-) Options

Freq options can be customized from -60bB to 0dB by users.

Option Auxiliary

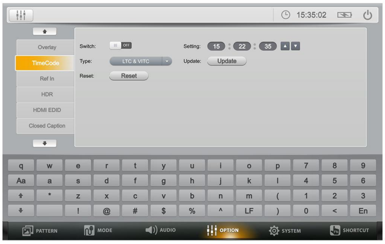
For solutions with various applications, the "Option" of device offers Overlay, Timecode, Ref In, HDR, EDID and Closed Caption functions for users to analyse different signals and formats.



Cpu : 53.03 °C 14:06:58

Overlay: ON
Type: Frame counter
Text: Text
Pos-X: 30 %
Pos-Y: 50 %
Moving: OFF
Direction: Down
Step: 26

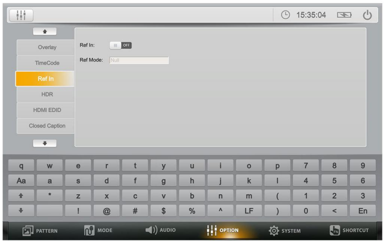
Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT



15:35:02

Switch: OFF
Type: LTC & VITC
Setting: 15 : 22 : 35
Update: Update
Reset: Reset

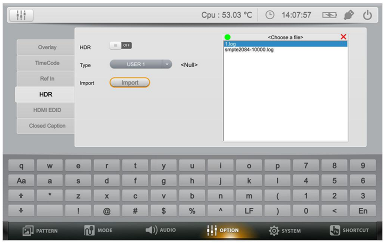
Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption



15:35:04

Ref In: OFF
Ref Mode: Null

Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption

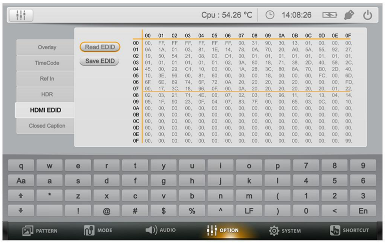


Cpu : 53.03 °C 14:07:57

HDR: OFF
Type: USER 1 <Null>
Import: Import

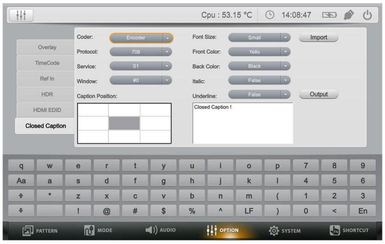
<Choose a file>
1.log
smpte2084-10000.log

Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption



Cpu : 54.26 °C 14:08:26

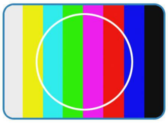
Read EDID
Save EDID
Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption



Cpu : 53.15 °C 14:08:47

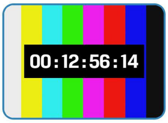
Coder: Encoder
Protocol: 708
Service: S1
Window: #0
Font Size: Small
Front Color: Yello
Back Color: Black
Italic: False
Underline: False
Caption Position:
Closed Caption !

Import
Output
Overlay
TimeCode
Ref In
HDR
HDMI EDID
Closed Caption



Ring Type

Ring type for optional under Overlay function.



Frame Counter Type

Frame counter type for optional under Overlay function.

Moving Direction

The moving of 3 types can be customized with 4 directions and prefered steps.

Time Code

Supports Linear time code(LTC) and Vertical interval time code(VITC).

Ref In

60fps ←60fps

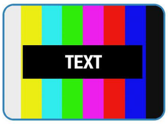
The output signal formats of HDMI and SDI can be synchronized to the imported signal.

HDR

Supports HLG and SMPTE protocol types, can also import up to 10 custom HDR types.

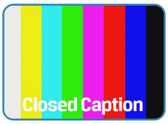
HDMI EDID

After HDMI signal is connected, it can read information about the signal of HDMI port.



Character Type

Character type for optional under Overlay function.
Text input will be displayed based on the specific X and Y axis that can be preset.

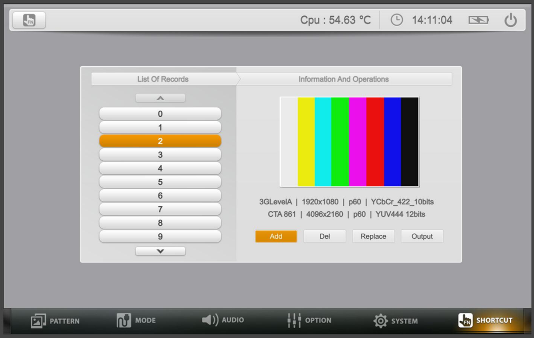

Closed Caption

Closed Caption

Test whether the display device supports hidden subtitles. Support CEA.708.

FN (Shortcut)

User-definable functions as shortcuts with great convenience.



Cpu : 54.63 °C | 14:11:04

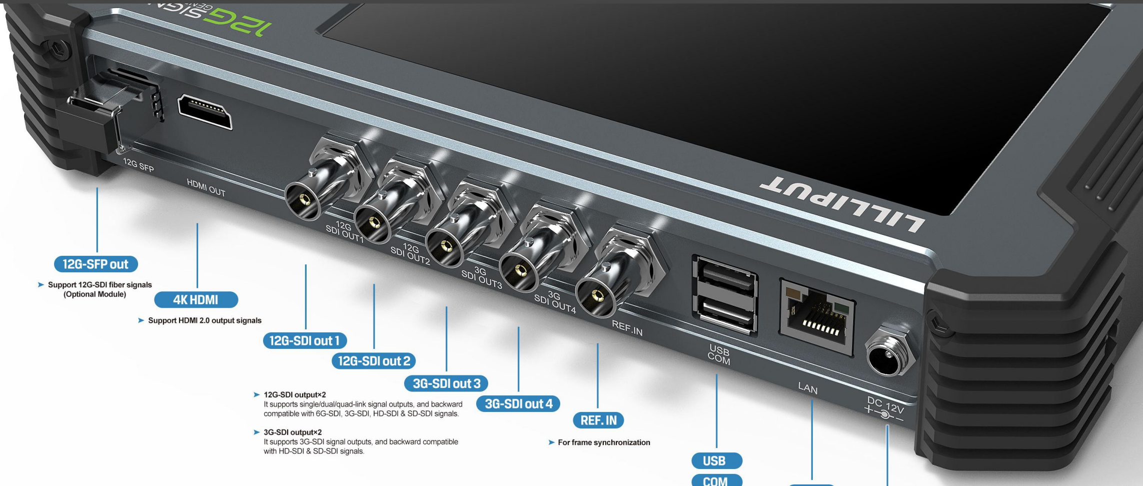
List Of Records | Information And Operations

3GLevelA | 1920x1080 | p60 | YCbCr_422_10bits
CTA 861 | 4096x2160 | p60 | YUV444 12bits

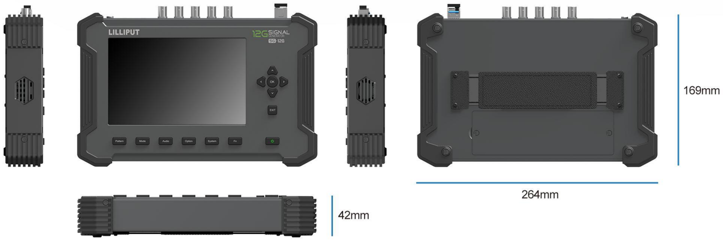
0
1
2
3
4
5
6
7
8
9
Add
Del
Replace
Output
PATTERN
MODE
AUDIO
OPTION
SYSTEM
SHORTCUT

Function Shortcut

Supports more than one hundred shortcut functions.
For time-saving and high efficient when testing, users can manage shortcut functions through Add, Del, Replace and Output operations.


12G SIGNAL GEN
LILLIPUT
12G SFP
HDMI OUT
12G SDI OUT1
12G SDI OUT2
3G SDI OUT3
3G SDI OUT4
REF.IN
USB COM
LAN
DC 12V
12G-SFP out
4K HDMI
12G-SDI out 1
12G-SDI out 2
3G-SDI out 3
3G-SDI out 4
REF. IN
USB
COM
LAN
POWER

- **Support 12G-SDI fiber signals (Optional Module)**
- **Support HDMI 2.0 output signals**
- **12G-SDI output×2**
  It supports single/dual/quad-link signal outputs, and backward compatible with 6G-SDI, 3G-SDI, HD-SDI & SD-SDI signals.
- **3G-SDI output×2**
  It supports 3G-SDI signal outputs, and backward compatible with HD-SDI & SD-SDI signals.
- **For frame synchronization**
- **USB**
  USB used for external devices, such as USB flash disk, mouse and keyboard, etc.


169mm
264mm
42mm

Silicon Rubber

Rugged silicon rubber design, providing an overall protection from drop and shock.

SPECIFICATIONS | ACCESSORIES

DISPLAY	Display Screen	7” IPS
	Physical Resolution	1280×800
	Aspect Ratio	16:10
	Brightness	400cd/m²
	Contrast	800:1
	Viewing Angle	178°/178°(H/V)
INPUT	REF	1
	USB	2
OUTPUT	12G-SDI	2
	3G-SDI	2
	HDMI	1
	FIBER	1 (Optional Module)
POWER	Current	≤2.3 (12V)
	Input Voltage	DC10-15V
	Power Consumption	≤27W
	Built-in Battery	5000mAh
ENVIRONMENT	Operating Temperature	-10℃ ~ 60℃
	Storage Temperature	-30℃ ~ 70℃
DIMENSION	Dimension(LWD)	264×169×42mm
	Weight	3kg

Note: Due to constant effort to improve products and product features, specifications may change without notice.

12G-SDI Signal Format

Single-link 12G ST 2082-10 Mode 1 **Dual-link 2×6G** ST 2081-11 Mode 1 **Quad-link SQ/2SI** 4×3G-SDI Level A/Level B ST 425-5	4096×2160 3840×2160	23.98p/24p/25p/29.97p/30p	GBR 4:4:4 10bits
			GBR+A 4:4:4:4 10bits
			YCbCr 4:4:4 10bits
			YCbCr+A 4:4:4:4 10bits
			GBR 4:4:4 12bits
			YCbCr 4:4:4 12bits
			YCbCr 4:2:2 12bits
		47.95p/48p/50p/59.94p/60p	YCbCr 4:2:2 10bits

Backward compatible with 6G-SDI/3G-SDI/HD-SDI/SDI signal formats

HDMI Signal Format

HDMI 2.0	4096×2160 3840×2160	23.98p/24p/25p/29.97p/30p 47.95p/48p/50p/59.94p/60p

Backward compatible with Full HD/HD/SD signal formats

12V 3A Power Adapter

Water-Proof Suitcase

User Manual

Fiber Module (Optional)

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