DeviceWell®

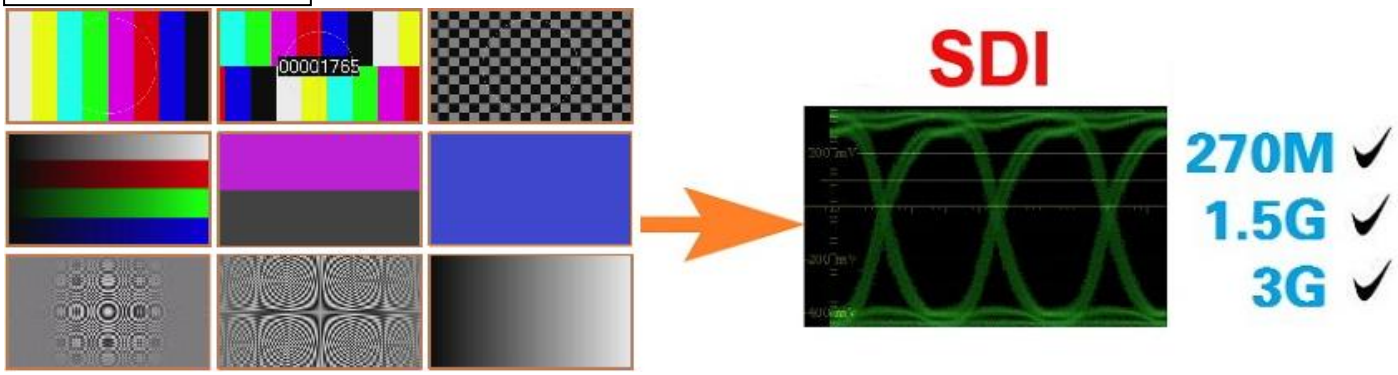
DeviceWell Shenzhen Technology Co., Ltd.

HD Video Signal Generator

Ver:1.1

PG9301(SDI+HDMI+YPbPr+CVBS Signal generator)

Function Diagram



Product Brief

DeviceWell high definition video signal generator, support SDI, HDMI, YPbPr and CVBS signal output. The test pattern including: color bar, Center Circle, cross line, chess, gray scale, Single color, Frame counter, Fresnel Circle, Dynamic Circle and dynamic color Bar. Device Highest support 1080P@60HZ output, downward compatibility. Can be widely used in SDI, HDMI, YPbPr and CVBS video signal test. The system supports local knob control,such as change the resolution and the test pattern, it Can be widely used in research and development, production, and high-definition video equipment aging test etc..

Features

◆4 channel Independent SDI signal output

◆1 channel HDMI signal output

◆1 Group YpbPr signal + CVBS signal output

◆1 channel Stero Audio output

◆1 channel Stero Audio input

◆270M/1. 5G/3G of SD/HD/3G SDI support

◆HDMI/YpbPr support 1080P@60HZ, Downward compatibility

◆Support 1080PSF etc. Special video format

◆Color Bar, Center Circle, Cross line, Chess etc. Standard pattern

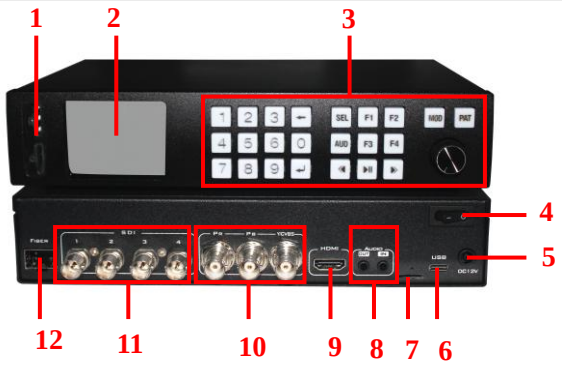
◆Special pattern for Fresnel Circle, Frame counter and Dynamic Circle

◆support auto resolution and pattern change

◆LCD status Display

◆Special Functions can be Customized

Interface Description



1. Reserved
2. LCD screen
3. Button control panel
4. Switch
5. DC 12V
6. USB Upgrade
7. TF card (MP3 player)
8. Audio Output/Input
9. HDMI Output
10. YPbPr/CVBS Output
11. SDI X 4 Output
12. FIBRE Output

Product Parameters

Product name	HD Video Signal Generator	
Product model	PG9301	
SDI Output	Output Signal	SDI (serial digital video signal)
	Connector	BNC IEC169-8 STD
	Rate	270M~2.97G
	Signal Amplitude	800mV ±10%
	Impedance	75Ω
HDMI Output	Output Signal	Standard DHDMI signal
	Connector	HDMI
	Signal Amplitude	800mV ±10%(100R)
	Impedance	100Ω
YPbPr Output	Output Signal	Standard YPbPr signal
	Connector	BNC X 3
	Signal Amplitude	800mV ±10%(75R)
	Impedance	75Ω
CVBS Output	Output Signal	Standard CVBS signal
	Connector	BNC
	Signal Amplitude	800mV±10%(75Ω)
	Impedance	75Ω
Audio Output	Output Signal	Analog stereo audio
	Digital sampling	48K
	Impedance	600Ω
	Connector	Earphone
Audio Input	Input Signal	Analog stereo audio
	Digital sampling	48K
	Impedance	600Ω
	Connector	Earphone
Common Parameters	Operating voltage	DC12V
	Power	<5W
	Host size	230 X165 X50 mm
	Control panel	Button and knob
	Weight	1.2 KG

Order model

Product model	**Function**	**Chassis type**	**Type of power**	Memo
PG9301	SDI、HDMI、YpbPr and CVBS	MINI	AC-DC 12V	Max support 3G SDI
PG9101	SDI、HDMI、YpbPr and CVBS	MINI	AC-DC 12V	Max support 1.5G SDI
PG9302	SDI	MINI	AC-DC 12V	Max support 3G SDI
PG9102	SDI	MINI	AC-DC 12V	Max support 1.5G SDI
PG9601	SDI、HDMI	MINI	AC-DC 12V	Max support 6G SDI
PG6008A	8 Group16 Channel	1U	Hot plug power supply	Support for remote on / off
PG6016B	16 Group 32 Channel	2U	Hot plug power supply	Support for remote on / off
PG6002A	Multi-channel SDI signal generator	1U	Standard power supply	

Application

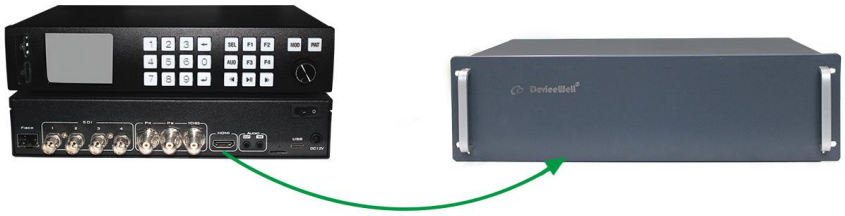
SDI Display test

SDI Optical transceiver transmission test

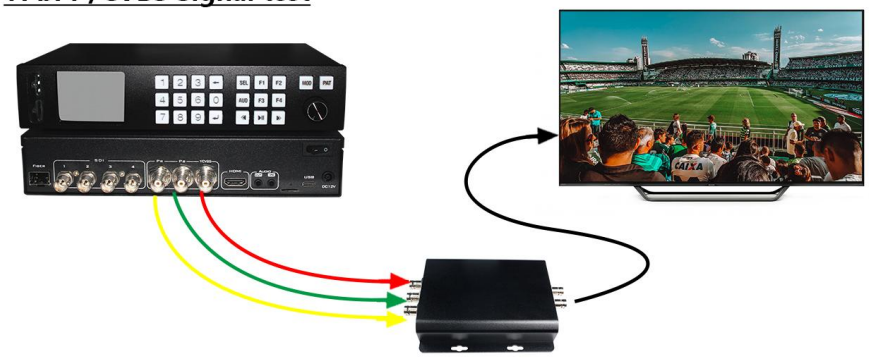
SDI Matrix test

Optical signal test

HDMI Matrix test



YPbPr /CVBS Signal test

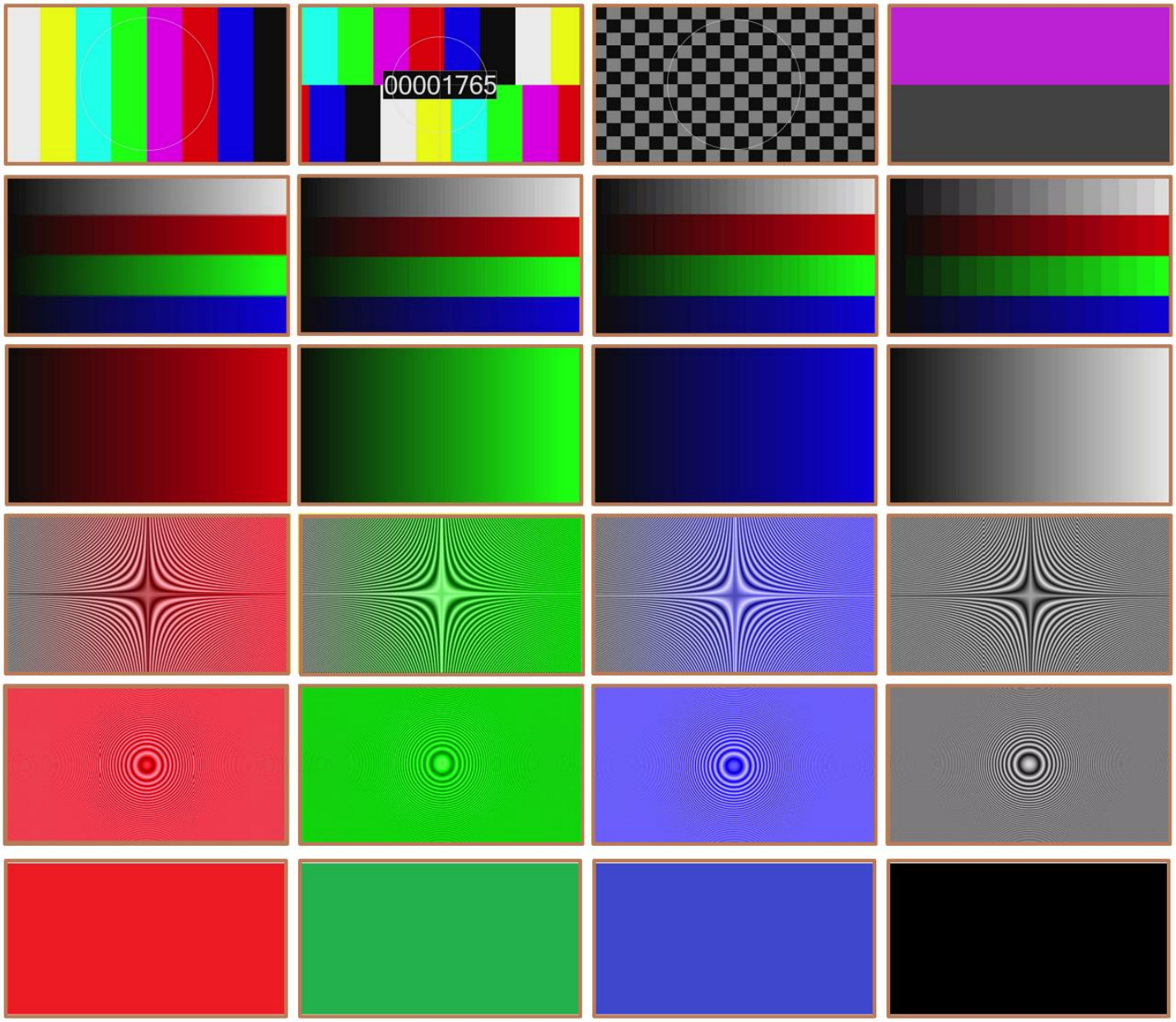


Channel Resolution List

NUM	Resolution	SDI	HDMI	YPbPr	CVBS	Ref Standard	Memo
1	652I/576I 50	√	√	√	√		
2	525I/480I 60	√	√	√	√		
3	720P 50	√	√	√			
4	720P 60	√	√	√			
5	1080P 24 PSF	√	√	√			
6	1080I 50	√	√	√			
7	1080I 60	√	√	√			
8	1080P 24	√	√	√			
9	1080P 25	√	√	√			
10	1080P 30	√	√	√			
11	1080P 50	√	√	√			
12	1080P 60	√	√	√			
13	720P 24	√	√	√			
14	720P 25	√	√	√			
15	720P 30	√	√	√			
16	PAL				√		
17	NTSC				√		
18	1080P 50 LBS	√					
19	1080P 60 LBS	√					
20	1080P 59 LBS	√					
21	720P 29.97	√					
22	720P 59.94	√					
23	1080P 23 PSF	√					
24	1080I 59.94	√					
25	1080P 23.98	√					
26	1080P 29.97	√					
27	1080P 59.94	√					

PG9301 Output SDI Eye Reference

PG9301 Output Test Pattern Reference



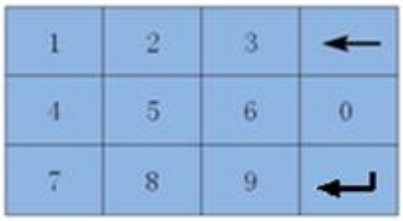
Test screen corresponding mode

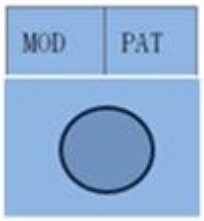
model	Test Pattern	model	Test Pattern
1	Dynamic Color Bar、Dynamic Circle	16	256 Gray
2	Frame Count、Dynamic Circle	17	Fresnel Circle_Grey
3	Chess、Center Circle、Frame	18	Fresnel Circle_Red
4	Color Bar、Center Circle	19	Fresnel Circle_Green
5	Color Bar、Gray	20	Fresnel Circle_Blue
6	Gray	21	Gray Curve
7	Gray 2	22	Red Curve
8	Chess、Center Circle	23	Green Curve
9	256 Color Gray	24	Blue Curve
10	64 Color Gray	25	White
11	32 Color Gray	26	Red
12	16 Color Gray	27	Green
13	256 Color Gray_Red	28	Blue
14	256 Color Gray_Green	29	Black
15	256 Color Gray_Blue	30	PathLogic

Test pattern

Test Pattern	Application
Color Bar	Color Correction
Center Circle	Position correction
Chess/Cross	Geometric correction
Gray	Brightness correction
Color Gray	Color Correction
Single color	Color Correction
Black, White	Color temperature
Frame Count	Frame Loss/Delay
PathLogic	EQ/PLL
Fresnel Circle	Resolution
Dynamic Color Bar	Motion correction
Dynamic Circle	Motion correction

Button arrangement



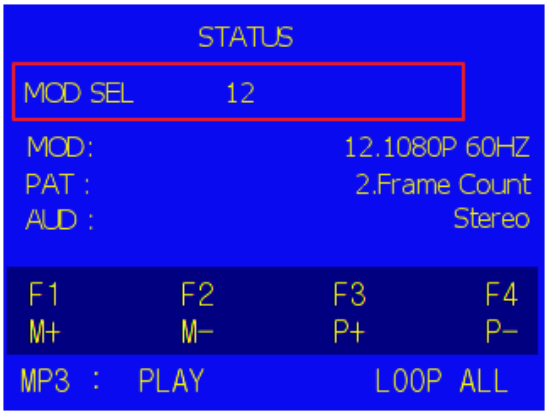


Update the switch position of the play/pause and next song buttons. The function of the enter button is the same as that of the knob button.

1.TIMING Set Up

1.1Operation mode one

In the status page (STATUS PAGE), use the SEL button to select MOD SEL, operate the numeric keyboard to input the PATTERN number, and press the ENTER button to confirm to switch to the corresponding TIMING.

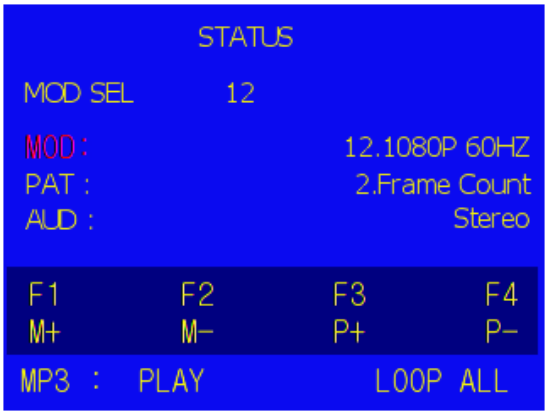


1.2Operation mode two

In the status page (STATUS PAGE), directly use the M-/M+ button to quickly switch TIMING.

1.3Operation mode three

In the status page (STATUS PAGE), press the knob to select the MOD option. At this time, the MOD option will change to the selected color, as shown in the figure below. At this time, rotating the knob can quickly switch TIMING.



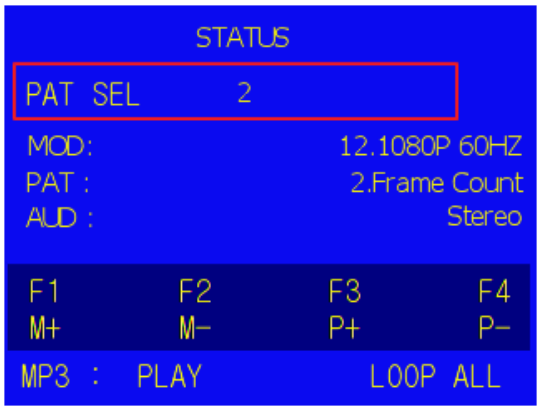
1.4Operation mode four

Press the MOD button to enter/exit the mode list page, use the knob to select the corresponding TIMING, press the knob to confirm the selected TIMING.

2.PATTERN Set Up

2.1Operation mode one

In the status page (STATUS PAGE), use the SEL button to select PAT SEL, operate the numeric keyboard to input the mode number, and press the ENTER button to confirm to switch to the corresponding PATTERN.

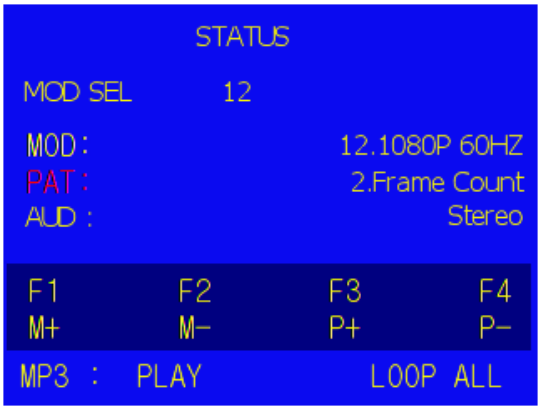


2.2Operation mode two

In the status page (STATUS PAGE), directly use the P-/P+ button to quickly switch PATTERN.

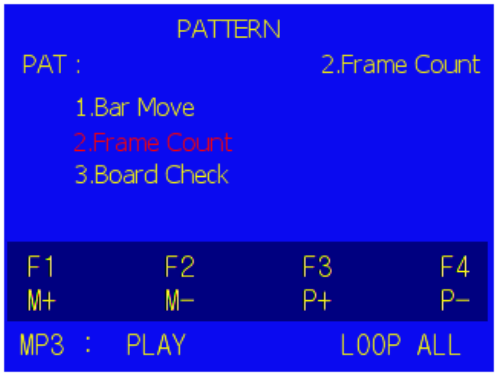
2.3Operation mode three

In the status page (STATUS PAGE), press the knob to select the PAT option. At this time, the PAT option will change to the selected color, as shown in the figure below. At this time, rotating the knob can quickly switch PATTERN.



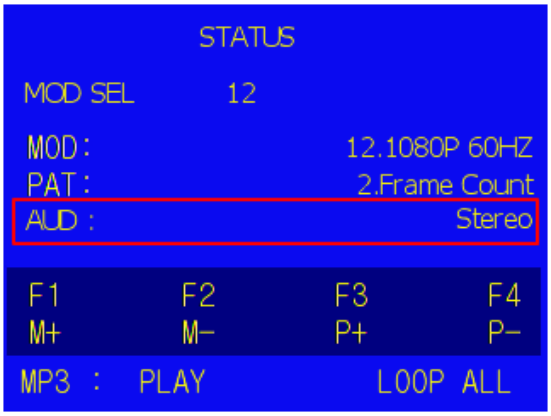
2.4Operation mode four

Press the PAT button to enter/exit the PATTERN list page, use the knob to select the corresponding pattern, and press the knob to confirm the selected pattern.



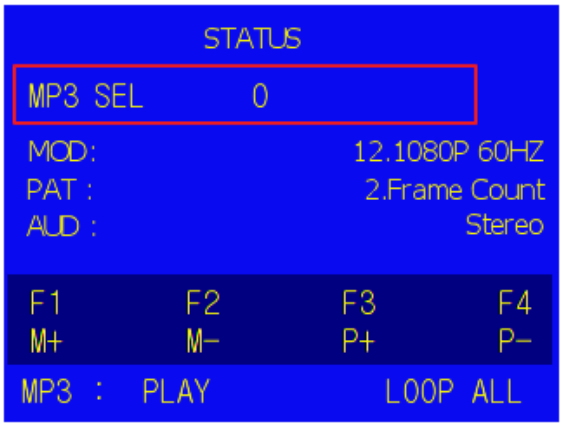
3.Audio mode settings

3.1Under the status page (STATUS PAGE), the Audio button can quickly switch the sound output mode, stereo (stereo), LEFT, RIGHT, MUTE.



4.Music playback control

4.1In the status page (STATUS PAGE), use the SEL button to select AUD SEL, operate the numeric keyboard to input the audio file number, and press the ENTER button to confirm to play the specified audio file.



4.2PREV to play the previous song, NEXT to play the next song

4.3Specify the audio file to play: Place the file on the TF card as required

4.3.1Name the audio file in the following format：001xxx.mp3 mp3”

[The first three digits of the file name must be three digits]

4.3.2Name the new folder 01, and put the audio files in the 01 folder

4.4MP3 Play status display