4K UHD Switcher (10-CH 12G SDI+2-CH 4K60 HDMI+2-CH 4K60 DP INPUT)

VER:1.0

Function Diagram
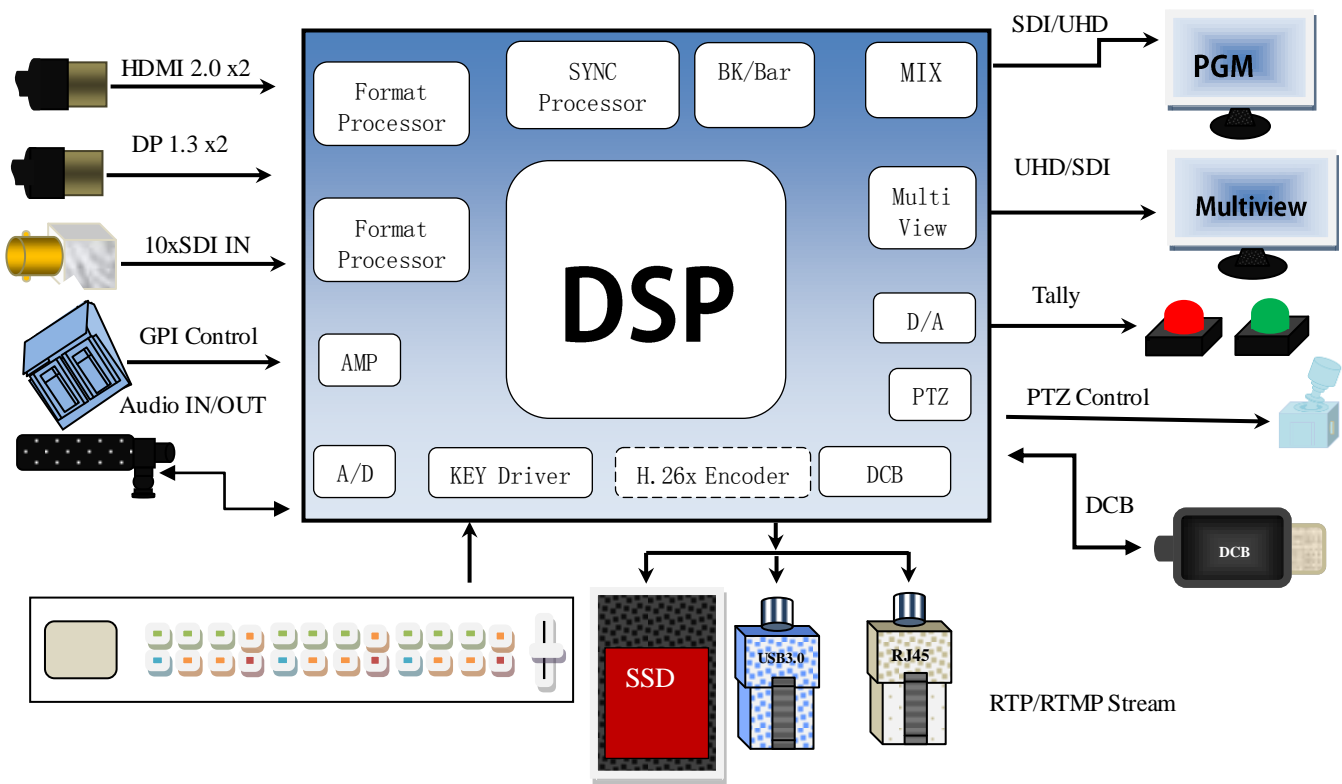
Introduction

It is a dedicated video switcher for broadcast & TV, supporting up to 12-CH 4K60 signals. The device integrates SDI decoder, HDMI decoder, DP decoder, the highest resolution supports 4K60HZ, backward compatible with 3G SDI and other 1080P/720P high-definition video signals, built-in format converter, adaptive front-end different video signal input, built-in special effect generator, audio processor, video streaming processing and other common components of switcher.

The video signal interface supports 10-CH 12G SDI+2-CH 4K60 HDMI+2-CH 4K60 DP, a total of 14 video inputs, 3-CH SDI output + 5-CH HDMI output+1-CH UVC output, a total of 9 video signal outputs.

The audio signal interface supports 2 channels of XLR input, 2 channel of XLR input.

Support DCB control system and tally output.

Optional H.26x encoding module, also capable of recording to built-in SSD or external USB drive.

Featuring a high-strength aluminum alloy shell and a built-in 5-inch display screen. It is suitable for the needs of switching between broadcasting and television studios and outdoor video special effects. For professional users, the keyboard can be extended and controlled through the DCB/RJ45 interface.

Features

◆ Metal aluminum alloy material, high strength and light weight

◆ A separate PATTERN KEY can be used to set various anomalies

◆ Patterns, the position, size, and quantity of images can be adjusted

◆ On circular, diamond, fan-shaped, plum blossom, blinds, etc

◆ Hundred types of special effects portraits

◆ Support joystick and camera control

◆ Industrial grade mechanical buttons with professional feel

◆ Comes with a 5 inch LCD display screen

◆ Support RJ45 remote control

◆ Support DCB control

◆ Radio and Television Standard Tally Interface

◆ Support GPI control

◆ Supports inputs such as foot pedals and control handles

◆ Support 3840x2160p60/50/30/25/24, H.264 encoding

◆ Support CBR fixed code rate mode

◆ Support High profile encoding

◆ Recording file format MP4, support EDIUS non-linear editing software

◆ The storage device interface supports USB3.0 and SATA hard disk recording

◆ The USB interface can be connected to the mouse and keyboard for operating the internal recording system

◆ The HDMI interface outputs the operation interface of the internal recording system

◆ Support screen freeze function

◆ 2HDMI+2DP+10SDI input

◆ MULTIVIEW output: 1 -CH HDMI

◆ PGM output: 2-CH4K60 HDMI+2-CH 12G SDI

◆ 1-CH 1080P HDMI OUT

◆ 1-CH12G SDI AUX custom PGM/PVW output

◆ 2-CH XLR IN

◆ 2-CH XLR OUT

◆ Support 4K HDR

◆ Support audio follow and mix function

◆ Support SDI audio de-embedding

◆ Support HDMI audio de-embedding

◆ Support PIP and POP function

◆ MIX/FADE/WIPE transition effects;

◆ Support CUT, AUTO and FTB

◆ Support Luma key, Chroma key

◆ RS422 interface to control the camera

◆ Support PC software remote upgrade

◆ Support DC12V power input

◆ Support functions such as image and text, logo overlay, etc

Interfaces

No.	Definition	Description
1	LCD	5"LCD
2	EXT HDD	HDD/SDD/4K Recorder
3	Menu Knob	Use the knob to adjust menu information
4	Button Panel	Button control panel
5	T-bar	T-bar switching
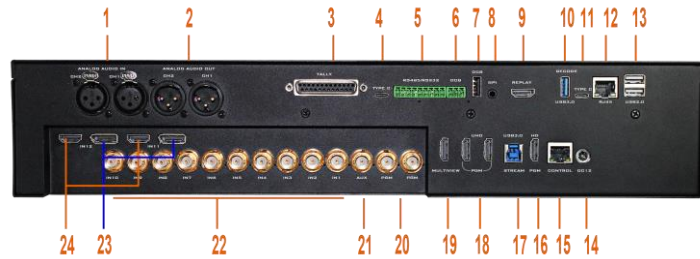
No.	Definition	Description
1	Audio IN	2-CH XLR input
2	Audio OUT	2-CH XLR output
3	Tally	Connect to the director tally system（DB-25）
4	Type C	Reserved
5	RS482/RS232	1-CH RS485（RX）/2-CH RS232
6	DCB	Reserved
7	DCB	DCB interface, supports cascade equipment and tally light module
8	GPI	GPI control
9	HDMI OUT	4K Player
10	USB3.0	External storage device
11	Type C	Upgrade
12	RJ45	Export internally recorded files
13	USB2.0	Mouse and keyboard
14	DC12V	DC 12V power supply
15	RJ45	Network port control/upgrade
16	HDMI OUT	1-CH 1080P HDMI OUT
17	USB3.0	USB3.0 UVC OUT
18	HDMI OUT	2-CH HDMI PGM OUT
19	HDMI OUT	1-CH HDMI MultiView OUT
20	SDI OUT	2-CH 12G SDI PGM OUT
21	SDI OUT	AUX custom PGM/PVW output
22	SDI IN	10-CH 12G SDI signal input
23	DP IN	2-CH 4K60 DP IN
24	HDMI IN	2-CH 4K60 HDMI IN

TALLY Introduction
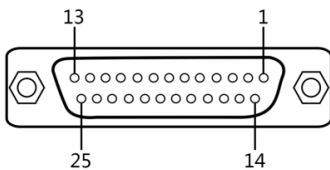
TALLY Online diagram：
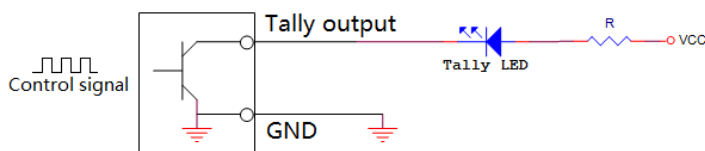
Note: Tally LED: is an external display device

Tally output: Low level is active (Tally LED lights up) High level is inactive (Tally out lights out)

Channel	PGM Live（LED Red）	PVW Preview（ LED
1	1	14
2	2	15
3	3	16
4	4	17
5	5	18
6	6	19
7	7	20
8	8	21
9	9	22
10	10	23
11	11	24
12	12	25
GND:13		

Product Name	4K UHD Switcher	
Video Signal Input	Input signal	10-CH 12G SDI+2-CH 4K60 HDMI+2-CH 4K60DP input
	SDI rate	1.5G、3G、6G、12G
	Connector	Standard
	Return Loss	>15dB 5MHz~3GHz
	Signal amplitude	800mV ±10%(SDI/HDMI/DP)
	Impedance	75 Ω(SDI) 100 Ω(HDMI) 100 Ω(DP)
	Balanced	Adaptive
	SDI input	10x 10bit 720p、1080i、1080p、2160p
	SDI specification	SMPTE 292M、SMPTE 296M、SMPTE 424M、SMPTE 425M A-level、SMPTE 2081‑1、SMPTE 2081‑10、SMPTE 2082‑1 and SMPTE 2082‑10、SMPTE 2082‑12
	HD video format	720p50、720p59.94、720p60 1080i50、1080i59.94、1080i60 1080p23.98、1080p24、1080p25、1080p29.97、1080p30、1080p50、1080p59.94、1080p60
	Ultra HD video format	2160p23.98、2160p24、2160p25、2160p29.97、2160p30、2160p50、2160p59.94、2160p60
Video Signal Output	Video output	PGM output：2x12G SDI+2x4K60 HDMI + 1x1080P HDMI Multi-screen output： 1x4K60 HDMI
	Multiview output	1x HDMI
	Screen display	12x UHD DISPLAY
	SDI video output	3 x 10bit 1080p、2160p
	UHD video output	3840x2160、1920x1080
	Clock recovery	Support
Control Parameter	Remote control	GPI
	Connection port	3.5mm port
	Network control	UDP
	Connection port	RJ45,100M
Common Parameters	Power supply	12V/DC
	Power	<80W
	Size	480*200*85mm
	Weight	3.8Kg
	Audio input	2-CH XLR audio in
	Audio output	2-CH XLR audio out
	Keying/streaming	YES
	SSD hard drive recording	YES
	PIP/POP	YES
	Special effects	T-BAR/AUTO /CUT/ FTB/STILL
	Transitions	MIX /FADE
	Camera control	MIX:12-WAY CAMERA CONTROL
	Screen display	12x UHD DISPLAY
	Control Panel	Supports on-site production and integrates multiple buttons
	Operating temperature	0℃~50℃ No condensation
	Storage temperature	-20℃~75℃
	Working humidity	20%~70%RH
	Storage humidity	0%~90%RH，No condensation