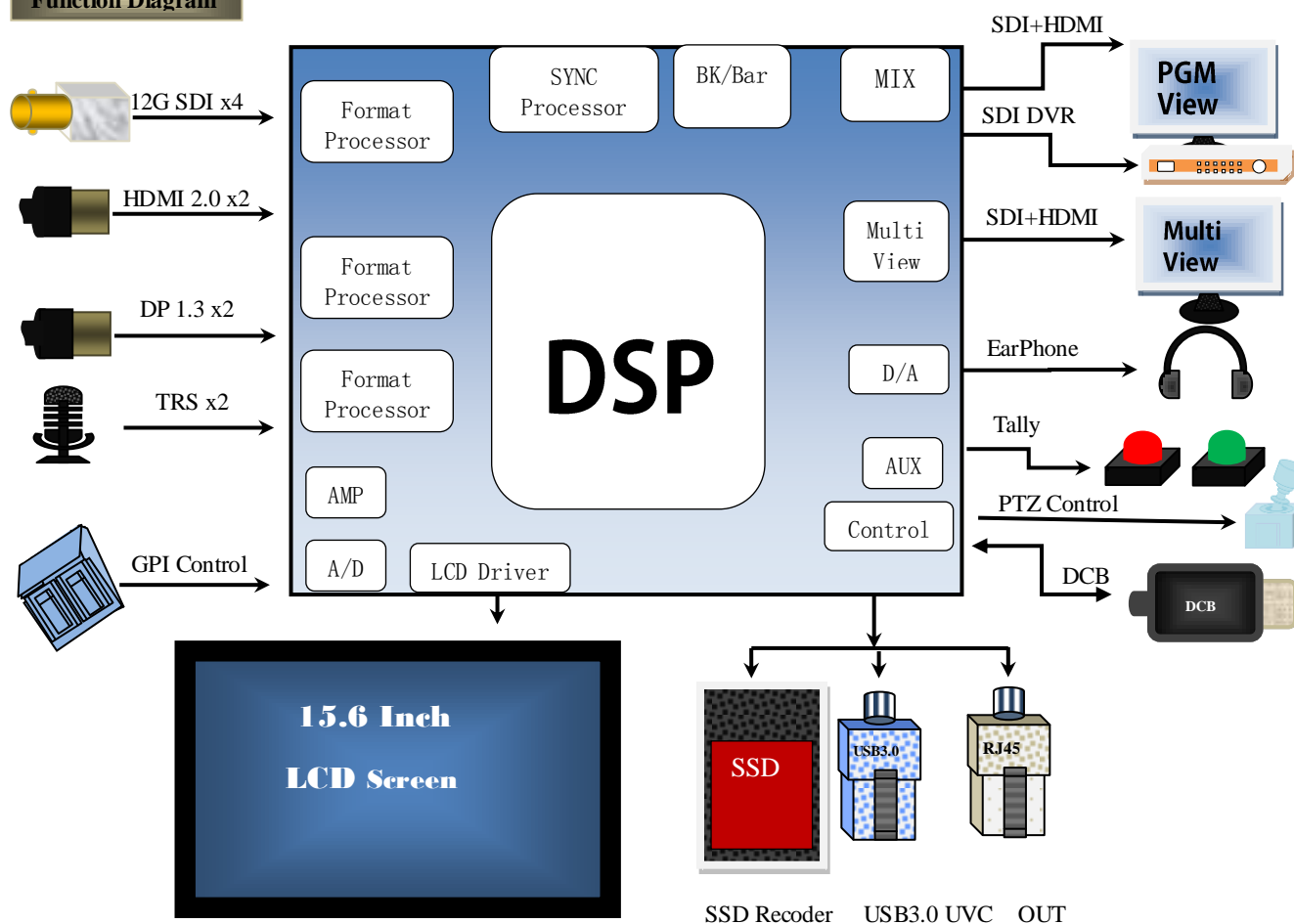




4K Switcher adopts SDI x4+HDMI x 2+DP x 2 design, and support up to 8 channels of 4K60 UHD video signals. It can meet the needs of more OEM customers. The main framework is as follows :

#### Function Diagram



#### Introduction

It is a dedicated video switcher for broadcast & TV, supporting up to 8 channels of 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 4-CH SDI+2-CH HDMI+2-CH DP, a total of 10 video inputs, 2-CH SDI output + 6-CH HDMI output+1-CH UVC output, a total of 9 video signal outputs.

The audio signal interface supports 2 channels of TRS input, and 2 channel of TRS output.

Support DCB control system and tally output.

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

It adopts high-strength aluminum alloy shell, which is easy to carry. It can be applied to broadcast and TV station studios and the needs of switching video effects on location. For professional users, the control keyboard can be expanded through the DCB interface.

## Features

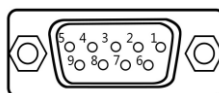
- ◆All-in-one design
- ◆Metal aluminum alloy material, high strength and light weight
- ◆A separate PATTERN KEY, which can set various special-shaped patterns.
- ◆The position, size and number of images can be adjusted.
- ◆Hundreds of special effect wipes such as circle, rhombus, fan, plum blossom, shutter, etc.
- ◆Industrial-grade mechanical keys
- ◆Hall sensor T-Bar
- ◆Comes with 15.6-inch LCD screen
- ◆Support RJ45 remote control
- ◆DCB control
- ◆Broadcast & TV standard Tally interface
- ◆Support GPI control
- ◆Support joystick, camera control
- ◆Support pedal, control handle and other input
- ◆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+4SDI input
- ◆MULTIVIEW output: 2-CH 4K60 HDMI
- ◆PGM output: 2-CH 4K60 HDMI+2-CH 12G SDI
- ◆1-CH 1080P HDMI PGM OUT
- ◆2-CH TRS input
- ◆2-CH TRS output
- ◆Support 4K HDR
- ◆Support audio follow and mix function
- ◆Support SDI audio de-embedding
- ◆Support HDMI audio de-embedding
- ◆Support PIP and POP function
- ◆Support CUT, AUTO and FTB
- ◆Support Luma key, Chroma key
- ◆RS422 interface to control the camera
- ◆FTB emergency blackout function
- ◆Support PC software remote upgrade
- ◆The device comes with color bar output
- ◆Support DC12V power input
- ◆Support functions such as image and text, logo overlay,

## Interfaces

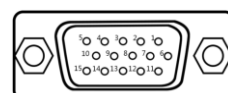


| No. | Definition | Description  |
|-----|------------|--|
| 1   | EXT HDD    | HDD/SDD/4K Recoder   |
| 2   | Audio IN   | 2-CH TRS IN  |
| 3   | Audio out  | 2-CH TRS OUT   |
| 4   | USB3.0     | USB3.0 UVC OUT   |
| 5   | HDMI OUT   | 1080P PGM OUT  |
| 6   | HDMI IN    | 2-CH HDMI signal input   |
| 7   | DP IN      | 2-CH DP signal input   |
| 8   | SDI IN     | 4-CH SDI signal input  |
| 9   | SDI OUT    | 2SDI PGM OUT   |
| 10  | HDMI OUT   | MultiView OUT  |
| 11  | HDMI OUT   | 2HDMI PGM OUT  |
| 12  | RJ45       | Remote control   |
| 13  | DC 12V     | DC 12V power supply  |
| 14  | Tally      | Connected to the director TALLY system (DB-15)                       |
| 15  | DCB        | DCB interface, support cascade equipment, support TALLY light module |
| 16  | GPI        | GPI control  |
| 17  | RS422      | PTZ control  |
| 18  | HDMI OUT   | 4K Player  |
| 19  | USB3.0     | External storage device  |
| 20  | Type C     | Remote upgrade   |
| 21  | RJ45       | Network upgrade  |
| 22  | USB2.0     | Mouse and keyboard   |

### TALLY\_GPI Definition:



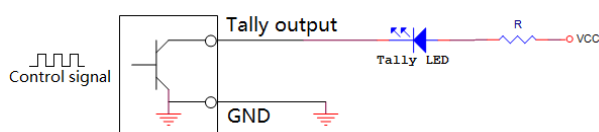
| PIN | RS-422 | RS-485 |
|-----|--------|--------|
| 1   | TX-    | DATE-  |
| 2   | TX+    | DATE+  |
| 3   | RX+    | —      |
| 4   | RX-    | —      |
| 5   | GND    | GND    |
| 6   | —      | —      |
| 7   | —      | —      |
| 8   | —      | —      |
| 9   | —      | —      |



| PIN | Function | PIN | Function |
|-----|----------|-----|----------|
| 11  | PGM-IN1  | 6   | PVW-IN1  |
| 12  | PGM-IN2  | 7   | PVW-IN2  |
| 13  | PGM-IN3  | 8   | PVW-IN3  |
| 14  | PGM-IN4  | 9   | PVW-IN4  |
| 15  | PGM-IN5  | 10  | PVW-IN5  |
| 3   | PGM-IN6  | 4   | PVW-IN6  |
| 5   | GND      |     |          |

Note: PIN1 PIN2 unused

### TALLY connection diagram:



Note: Tally LED: For an external display device

Tally output : Low level is active (Tally LED is on) high level is invalid  
(Tally out is off)

## Parameters

|                            |                               |   |
|----------------------------|-------------------------------|---|
| <b>Product Name</b>        | <b>4K UHD Switcher</b>        |   |
| <b>Model</b>               | <b>UHS9508R</b>               |   |
| <b>Video Signal Input</b>  | Input Signal                  | HDMI/DP/SDI video signal  |
|                            | Code Rate                     | 1.5Gbps~12Gbps  |
|                            | Connector                     | Standard  |
|                            | Signal Amplitude              | 800mV ±10% (HDMI/SDI/DP)  |
|                            | Impedance                     | 100Ω (HDMI), 100 Ω (DP), 75 Ω (SDI)   |
|                            | Balance                       | Adaptive  |
|                            | DVD HDMI input                | 720p,1080i,1080p,2160p  |
|                            | ComputerHDMI/DP input support | 3840x2160,1920x1080,1680x1050,1600x900,1440x1050,1366x768,1360x768,1280x1024,1280x960,1280x800,1280x768,1280x720,1280x600,1152x864,1024x768,800x600 |
| <b>Video Signal Output</b> | Output Signal                 | HDMI/SDI video signal   |
|                            | Code Rate                     | 6GMbps~12Gbps   |
|                            | Connector                     | Standard  |
|                            | Signal Amplitude              | 800mV ±10% (HDMI/SDI)   |
|                            | Impedance                     | 100Ω (HDMI), 75 Ω (SDI)   |
|                            | Clock Recovery                | Support   |
|                            |                               |   |
| <b>Common Parameters</b>   | Power Supply                  | 12V/DC  |
|                            | Power                         | ≤70W  |
|                            | Size/Weight                   | 384*252*92mm/3.7Kg  |
|                            | Control Panel                 | Support on-site production, integrate a variety of buttons  |
|                            | Operating Temperature         | 0℃~50℃ no condensation  |
|                            | Storage Temperature           | -20℃~75℃  |
|                            | Working Humidity              | 20%~70%RH   |
|                            |                               |   |

## Application

