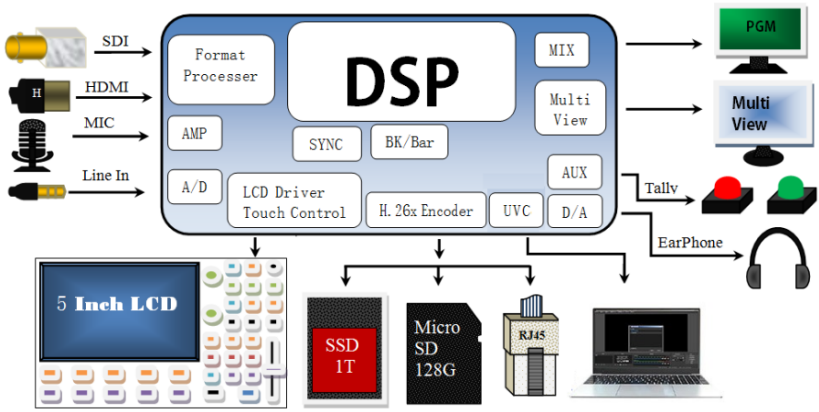
DeviceWell®
中帝威科技

# 使用手册

# Users' Manual

VER 1.0




## 4 通道高清视频切换台　　4-CH HD SWITCHER

# 语言 LANGUAGES



## 安全须知

如果忽视这些注意事项，可能导致人员伤害或伤亡，可能导致设备损坏、数据丢失、设备性能降低或不可预知的结果。

**电器安全特性**

- 为避免可能的电击造成严重损害，在搬动产品之前，请先将电源线暂时从产品电源接口处移除。
- 当您需要加入新的硬件到产品中或移除产品中现有硬件时，请务必先关闭产品电源。条件允许的情况下，建议将电源线暂时从产品接口处移除。
- 使用前应确认产品是否已接地，电源电压是否已调整到产品适用的范围内。否则将可能导致产品以外损坏、性能降低或不可预知的结果。
- 请勿使用松动或损坏的电源插座或在手潮湿的时候接触电源插座，否则将有触电和起火的危险。
- 若听到电源线和电源接口处有噪音，请立即拔下电源线，并向您的销售代表寻求帮助，否则将有起火或触电的危险。
- 若如有异物或液体进入产品或需要清洁产品时，请从产品上移开电源线以及其他的任何电缆线，否则将有触电、起火和损坏产品的危险。
- 若电源已损坏，请不要尝试自行修复。请联系专业技术服务人员或经销商来处理。

**Caution**

- During transportation, handling, and installation of switchboard equipment, avoid collisions between the switchgear equipment and doors, walls, shelves, etc.
- When the equipment is unpacked and transported, it is strictly forbidden to put it down and drag it gently to avoid damage to the switchboard equipment.
- Do not place the switcher equipment in a flammable, explosive atmosphere or smoke environment. Do not perform any operation in this environment.
- Operating equipment should be kept away from water and moisture. The water in the switchgear or moisture will cause damage to the circuit of the switchgear equipment.
- A certain amount of heat will be generated during the operation of the switcher. Ensure that the switchgear equipment is ventilated and the switcher device can operate normally.

**Danger**

- It is a fatal hazard that indirect contact with the power supply by wet objects is prohibited. Unregulated, incorrect high-voltage operation can cause accidents such as fire or electric shock.
- It is forbidden to install and remove the switchgear equipment and power cord. When the power cord is in contact with the conductor, an arc or spark may be generated, which may result in fire or electric shock.

由于产品功能的不断更新，您手中的用户手册可能会与实际应用有所出入，最新用户手册请从 Devicewell 官方网站下载，此用户手册更新日期为 2022 年 4 月 29 日。

Due to the continuous update of product functions, the user manual in your hand may differ from the actual application. Please download the user manual from the official website of Devicewell recently. The update date of this user manual is Arp 29, 2022.

注意：不同型号对应不同的产品功能，请根据您所购买型号按用户手册内型号对照表匹配所购买型号的参数，本说明书以 HDS8347 的功能参数为例展开说明。

Note: Different models correspond to different product functions. Please match the parameters of the purchased model according to the model comparison table in the user manual according to the model you purchased. This manual takes the function parameters of HDS8347as an example to expand the description.

未来如有技术变动，恕不另行通知。

In the future, there will be technical changes without notice.

# 目录

# 1.概述

## 1.1 产品介绍

中帝威(DeviceWell)高清视频切换台 HDS8107/HDS8307/HDS8347，采用便携式一体化设计，金属外壳，体积小重量轻， HDS8107/HDS8307/HDS8347 标准尺寸：192mm*124mm*34mm，可适用于小型外出场景的视频特效切换需求。设备集成多画面预监处理器、特效发生器、音频处理器、控制键盘等切换台常用组件。

设备支持 4 路 HDMI 输入，其中 HDS8347 支持 2 路 SDI、2 路 HDMI 信号输入,共计 4 路视频信号。可同步输出外部预监信号。设备支持 HDMI 内嵌音频+外部模拟音频，混合处理后，可嵌入到输出的 HDMI 信号中，也可从模拟端口输出。所有输入信号的分辨率自动适应，输出信号分辨率可按需求选择，相当灵活。4 通道切换台适用于现场演出、课程录制与棚内导播等，该切换台具备多种功能，如多种格式视频输入且输入分辨率自适应，模拟音频输入输出，音频加嵌解嵌，混音，抠像，画面开窗，TF 卡录制，RJ45 网口推流，具备远程升级能力。

# 2.功能特性

中帝威 4 通道高清视频切换台是一款多功能切换台，无需专业知识，只需通过简单操作即可进行视频切换和音频混合。本机可在广电、直播和各种活动场所中使用。

◆便携式一体式设计,金属机身，强度高，重量轻
◆支持 PGM 输出及 MutiView 输出
◆最多支持 4 路输入
◆支持 2 路 MIC 输入,1 路 LINE IN 输入
◆支持1 路 LINE OUT 输出
◆支持网络推流(RTMP)
◆支持音频跟随、混音功能
◆支持 HDMI 音频解嵌
◆支持 MIX /FADE 等特效切换
◆支持画面冻结功能
◆支持PIP开窗功能
◆支持抠像功能(亮度键或色度键)
◆支持PC远程控制及DCB控制
◆支持外扩Tally系统
◆支持中帝威无线TALLY灯
◆支持CUT硬切和AUTO特效切换
◆内置机箱温度检测及风扇
◆智能控制系统
◆

# 2.1 HDS8 系列 MINI 高清视频导播切换台型号功能对照表



**HDS8系列高清视频导播切换台功能对照表(Ver1.0)**

| 类别 | 功能介绍 | HDS8102 | HDS8325 | HDS8101 | HDS8301 | HDS8107 | HDS8307 | HDS8345 | HDS8347 |
|---|---|---|---|---|---|---|---|---|---|
| 产品接口 | 输入通道 | 2*HDMI | 2*HDMI | 4*HDMI | 4*HDMI | 4*HDMI | 4*HDMI | 2*HDMI+2*SDI | 2*HDMI+2*SDI |
| | PGM 输出 | HDMI*1 | HDMI*2 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 |
| | 多画面预监 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 | 自带液晶监看 |
| | HDMI预监输出 | X | X | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 |
| | DCB 控制 | √ | X | √ | X | √ | X | X | X |
| | DCB2 控制 | X | √ | X | √ | X | √ | √ | √ |
| | SD 卡录制 | X | √ | X | √ | X | √ | √ | √ |
| | 外接U盘录制 | X | √ | X | √ | X | √ | √ | √ |
| | 外接SSD硬盘录制 | X | √ | X | √ | X | √ | √ | √ |
| | 网口（RTMP 推流） | X | √ | X | √ | X | √ | √ | √ |
| | 网口（控制/升级） | X | X | √ | √ | √ | √ | √ | √ |
| | TYPE-C(升级) | √ | √ | X | X | X | X | X | X |
| | TYPE-C(UVC) | √ | √ | √ | √ | √ | √ | √ | √ |
| | 控制方式 | 触摸 | 触摸 | 按键 | 按键 | 触摸 | 触摸 | 按键 | 触摸 |
| | 液晶屏尺寸 | 4 寸 | 5寸 | 5寸 | 5寸 | 7寸 | 7寸 | 5寸 | 7寸 |
| | 尺寸(长x宽x高 mm) | 91 x 91 x 29 | 137 x 91 x 30 | 192 x 124 x 33 | 192 x 124 x 33 | 192 x 124 x 34 | 192 x 124 x 34 | 192 x 124 x 33 | 192 x 124 x 34 |
| | 5v/12v 双电源 | √ | | | | | | | |
| | 2 路 MIC 输入 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 1 路 LINE IN 输入 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 1 路 LINE OUT 输出 | √ | √ | √ | √ | √ | √ | √ | √ |
| | T-bar 一键切换 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 2 组音频控制推子 | √ | √ | √ | √ | √ | √ | √ | √ |
| 特效处理 | 色度键 Chroma Key | X | X | √ | √ | √ | √ | √ | √ |
| | 亮度键 Luma Key | X | X | √ | √ | √ | √ | √ | √ |
| | 彩条信号输出 | X | X | √ | √ | √ | √ | √ | √ |
| | FTB 应急黑场 | X | X | √ | √ | √ | √ | √ | √ |
| | 色域 | YUV | YUV | RGB | RGB | RGB | RGB | RGB | RGB |
| | 音频跟随 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 音频混音 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 一键画面冻结 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 智能温控 | √ | √ | √ | √ | √ | √ | √ | √ |
| | PC 软件控制（网口） | X | √ | √ | √ | √ | √ | √ | √ |
| | MIX /FADE 特效切换 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 3 种转场速率调节 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 画中画（PIP） | √ | √ | √ | √ | √ | √ | √ | √ |
| | 最高分辨率 | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P |
| | 输入分辨率自适应 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 输出分辨率可调 | √ | √ | √ | √ | √ | √ | √ | √ |
| 扩展功能 | TALLY | √ | √ | √ | √ | √ | √ | √ | √ |
| | 无线TALLY | √ | √ | √ | √ | √ | √ | √ | √ |
| | 脚踏板 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 设备级联 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 同步控制 | √ | √ | √ | √ | √ | √ | √ | √ |
| | 外置键盘 | √ | √ | √ | √ | √ | √ | √ | √ |

# 2.2 设备尺寸

设备尺寸请参照导播切换台型号功能对照表的尺寸。


# 3.接口规格说明

## 3.1 接口介绍


| 序号 | 接口定义 | 说明 |
|---|---|---|
| 1 | STREAM OUT | Type_C 接口、UVC 输出 |
| 2 | PGM OUT | 1*PGM 直播输出 |
| 3 | MultiView Out | HDMI 多画面输出 |
| 4-7 | HDMI IN | 4 路 HDMI 信号输入 |
| 8 | Power | DC 12V 电源 |
| 9 | Key | 开关机及锁屏控制 |
| 10 | EXT HDD | 外接硬盘（需外接专用转换板） |
| 11 | TF Card | TF 卡存储 |
| 12 | LINE OUT | 立体声音频输出 |
| 13 | LINE IN | 立体声音频输入 |
| 14-15 | MIC IN | 2 路 MIC 输入 |
| 16 | DCB/DCB2 | DCB 控制(设备级联/无线 TALLY/外接键盘) |
| 17 | RJ45 | 网络推流/网络升级/远程控制 |

| 序号 | 接口定义 | 说明 |
|---|---|---|
| 1 | STREAM OUT | Type_C 接口、UVC 输出 |
| 2 | PGM OUT | 1*PGM 直播输出 |
| 3 | MultiView Out | HDMI 多画面输出 |
| 4-5 | HDMI IN | 2 路 HDMI 信号输入 |
| 6-7 | SDI IN | 2 路 SDI 信号输入 |
| 8 | Power | DC 12V 电源 |
| 9 | Key | 开关机及锁屏控制 |
| 10 | EXT HDD | 外接硬盘（需外接专用转换板） |
| 11 | TF Card | TF 卡存储 |
| 12 | LINE OUT | 立体声音频输出 |
| 13 | LINE IN | 立体声音频输入 |
| 14-15 | MIC IN | 2 路 MIC 输入 |
| 16 | DCB/DCB2 | DCB 控制(设备级联/无线 TALLY/外接键盘) |
| 17 | RJ45 | 网络推流/网络升级/远程控制 |

# 3.2 技术参数

| 产品名称 | 便携式 4 路 HDMI 4 通道切换台 | |
|---|---|---|
| 产品型号 | HDS8107/HDS8307/HDS8347 | |
| 视频信号输入 | 输入信号 | SDI/HDMI 视频信号 |
| | 码率 | 270Mbps~3Gbps |
| | 连接器 | 标准 |
| | 反射损耗 | >15dB 5MHz~3GHz |
| | 信号幅度 | 800mV±10%(SDI/HDMI) |
| | 阻抗 | 100Ω (HDMI) 75Ω (SDI) |
| | 均衡 | 自适应 |
| | DVD 输入 HDMI 支持 | 480i/576i,480p/576p,720p,1080i,1080p |
| | 电脑 HDMI 输入支持 | 1920x1080,1680x1050,1600x900,1440x1050,1366x768,<br>1360x768,1280x1024,1280x960,1280x800,1280x768,<br>1280x720,1280x600,1152x864,1024x768,800x600 |
| 视频信号输出 | 输出信号 | HDMI 视频信号 |
| | 码率 | 270Mbps~3Gbps |
| | 连接器 | 标准 |
| | 反射损耗 | >15dB 5MHz~3GHz |
| | 信号幅度 | 800mV±10%(HDMI) |
| | 阻抗 | 100Ω (HDMI) |
| | 直流偏移 | 0V±0.5V |
| | 时钟恢复 | 可选 |
| 控制参数 | 控制协议 | CAN 总线 |
| | 连接端口 | 15 针 D 型口 |
| | 网络控制 | RJ45,100M |

| | | |
|---|---|---|
| 常规参数 | 电源 | DC 12V |
| | 功率 | <20W |
| | 控制面板 | 支持现场制作，集成多种按键 |
| | 工作温度 | 0℃~50℃无冷凝 |
| | 存储温度 | -20℃~75℃ |
| | 工作湿度 | 20%~70%RH |
| | 存储湿度 | 0%~90%RH，不结露 |

# 4.控制面板及接口

在使用中帝威高清切换台 HDS8107/HDS8307/HDS8347 设备前，恳请您能花几分钟时间阅读本章节。本章节将为您详细介绍中帝威高清切换台的面板及接口，以方便您后续的使用和操作。

中帝威高清切换台设备外壳使用新型金属材料制成，新型金属外壳具备高强度特性提升了整机的抗摔、抗压、抗震能力，有效保护了设备内部的元器件。超轻薄的特性使得设备在运输和维护过程中更加便捷，无需借助其它设备；同时也具有无可比拟的散热性能。

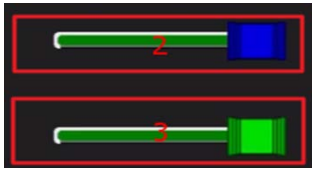
除了外壳的创新，中帝威高清切换台对接口连接器也做了全新的优化。采用全新 RoHS 标准的环保材料，在耐用程度和环境保护上要求更为苛刻，为您提供更稳定，更环保，性价比更高的产品。

## 4.1 控制面板

## 4.1.1 分区说明

| 序号 | 名称 | 说明 |
|---|---|---|
| 1 | 状态显示区 | 实时显示各操作的视频与数据 |
| 2 | 音频控制区 | 主要是对音频跟随混音进行设置及音频音量控制 |
| 3 | 转场特效控制区 | 选择转场特效，画面开窗，抠像等功能 |
| 4 | 综合控制区 | FTB、BAR 和 STILL 特效 |
| 5 | 菜单控制区 | 使用按键设置菜单信息 |
| 6 | PGM 与 PVW 选择区 | 直播与预监选择 |
| 7 | 转场控制区 | 控制转场切换和转场速率调整 |

### 4.1.2.2 音频控制区


- **音频跟随模式的使用方法：**

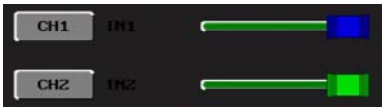
1、音频跟随模式下，区域 1 和区域 3 均为禁止状态，不可操作。滑动区域 2 的滑条可以设置当前音频输出的音量。

（注意：图片中显示的按键颜色与实际效果图片有所偏差，请见谅）

- **混音指派模式的使用方法：**

2、混音模式状态，如下图指示。


3、音频跟随模式的音量大小调整，通过操作面板的按键来控制 ；按下跟随模式的 AFV 按键（显示绿灯），会默认跟随 PGM 直播通道的音频，此时需要增加或是减少音量，只需滑动右边的滑条可以设置通道音量的大小。




4、混音指派的通道有 IN1、IN2、IN3、IN4，PHONE_IN、MIC_IN1、MIC_IN2 在混音指派模式下，多了两种音频加嵌功能；PHONE_IN 表示 3.5 音频接口，MIC_IN 表示 3.5mm 麦克风音频接口 ；PGM 直播输出可以同时任意混音两路音频，两路音频的音量大小也可以分别调整，右边的滑条可以设置通道 1 的音量。

5、混音模式下设置音频通道 2 的输入源，可以设置 IN1/IN2/IN3/IN4/PHONE_IN/MIC_IN1/MIC_IN2，右边的滑条可以设置通道 2 的音量。

6、MUTE 按钮，可以使输出音频一键静音。


### 4.1.2.3 转场特效控制区

转场模式分为三种：

MIX 混合特效转场、FADE 淡入淡出转场、划像转场

其中划像转场包括：向上、向下、向左和向右划像转场方式。

1.1MIX –混合模式

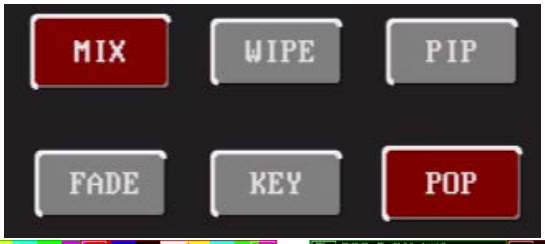

1.2WIPE-划像模式，可以循环设置上下左右四种划像模式。


1.3FADE-淡入淡出模式


2.抠像、PIP、POP 开关（KEY,PIP,POP 按钮功能互斥，每次只能开启一种功能）。

2.1PIP 开关，开启 PIP 后可以在设置菜单中设置 PIP 的大小，直接拖动 PIP 窗口可以移动 PIP 窗口的显示位置。设置好 PIP 窗口后，还需要按下 CUT 按钮把 PIP 窗口输出到 PGM 窗口输出。


2.2POP 开关，开启 POP 功能后，还需要按下 CUT 按钮把 POP 窗口输出到 PGM 窗口输出。





3.CUT，AUTO，T-bar 视频切换功能


3.1CUT 按钮，视频直切功能，在没有开启 PIP/POP/KEY 功能时，该按钮直接交换 PVW 和 PGM。开启 PIP/POP/KEY 功能时，将 PVW 窗口设置的功能画面切换到 PGM 窗口输出显示。

3.2AUTO 按钮，此按钮是自动转场 PVW 和 PGM 的画面，转场模式可选择 MIX/WIPE/FADE 模式，切换时间由设置好的 RATE 速率决定。

3.3T-bar 滑条，手动转场 PVW 和 PGM 的画面，转场模式可选择 MIX/WIPE/FADE 模式。

### 4.1.2.4 综合控制区


- **FTB 应急黑场**

FTB 功能定义为应急黑场画面输出，点击 FTB 图标，字体红色闪烁，开启 FTB 应急黑场输出功能；点击 FTB 图标，字体白色不闪烁，FTB 应急黑场功能关闭。

- **STILL 画面冻结特效**

画面冻结特效：点击 STILL 图标，STILL 字体变红色常亮，表示功能已开启。此时输出的 PGM 视频动画将会进入冻结状态，再次点击 STILL 图标即可解除冻结功能，画面恢复正常。

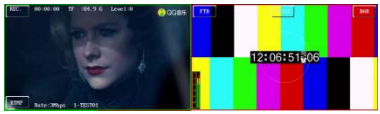

- **BAR 彩条测试画面**

点击 BAR 图标，BAR 字体变红色常亮，表示功能已开启。此时多画面中的 PVM 窗口和 PGM 窗口会变成彩条画面，而输出的 PGM 信号也是彩条画面。再次点击 BAR 图标即可关闭彩条，画面恢复正常。

### 4.1.2.5 PGM 与 PVW 的选择

- **多画面输出窗口介绍**

其中 Preview 和 Program 分别为预监和直播输出。如右图所示




预监　　直播

下方有 4 个窗口对应的是输入源监看，每个窗口中都有 PGM 和 PVM 的图标。


- **PGM 和 PVW 输出信号**

设备接入视频信号源后，点击小窗口中的 PGM 或 PVW 图标，在输出的多画面监视器中的直播和预监信号源分别是对应亮灯的 PGM 和 PVW。效果图如右所示，信号源分别是 HDMI IN1 和 HDMI IN2。

- **PGM 和 PVW 源切换**

如果想让多画面中的直播与预监信号源切换（直播≒预监）

假设想要多画面中的直播信号源 1（PGM）和预监信号源 2（PVW）变换成 2（PGM）和 1（PVW），只需要点击小窗口中的 PGM 和 PVW 图标，再点击 AUTO 或 CUT 切换即可。直播 PGM 信号源 1-4 可以和预监 PVW 信号源任意切换。

# 5. TYPE-C 接口对接 OBS 软件说明

**步骤 1：通过 TYPE-C 数据线将单板与 WIN7 相连，WIN7 端识别后，设备列表会出现 HDS8347 Audio/HDS8307Audio 和 HDS8347Video/HDS8307 Video，代表识别 ok.**

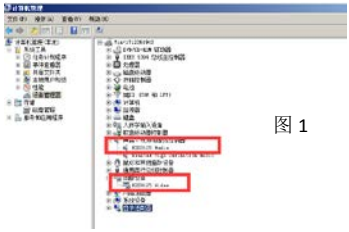


图 1

如图 1 所示。图 1 设备管理器中 Audio 和 Video 节点。

**步骤 2：添加视频捕获设备**

打开 OBS 软件，点击界面左下角的来源框的“+”然后点击“视频捕获设备”，如图 2 所示。

点击“视频捕捉设备”后将出现一个可以修改名称的界面，可以自定义名称。如图 3 所示。


图 2

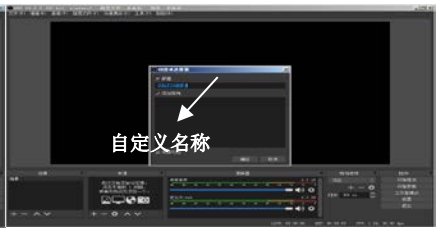



图 3

**步骤 3：设置视频捕获设备属性**

① 设置视频属性。

设备选择：HDS8347 Video /HDS8307 Video；

分辨率/帧率 类型选择：自定义；分辨率可以选择：1920*1080、1280*720、640*360 如图 4 所示。

②下拉设置音频属性。

音频输出模式选择：输出桌面音频（WaveOut）；勾选使用自定义的音频设备

音频设备选择：Capture Input terminal(HDS8347Audio /HDS8307 Audio )，如图 5 所示.


图 4


图 5

说明：

1.最新 OBS 版本 25.0.1 可以在视频格式选择 H264，这样图像质量会有所提升。

2.每次使用前需要先将设备与电脑连接，再打开 OBS 软件，否则 OBS 软件无法识别 USB 设备。

# 6.系统菜单设置

- **菜单显示**

1.SET 按钮，开启设置菜单，可以设置 PGM 输出分辨率。麦克风输入音频 dB 值，风扇转速，PGM、PVW 视频转场速率。PIP 大小，抠像选择和抠像等级设置。


2.PGM 输出分辨率设置。RESO 按钮设置 PGM 输出分辨率，支持 1080P60/1080P50/1080P30/1080P25/1080P24/1080i60/1080i50 输出。


3.麦克风输入 dB 值设置。MicVol 按钮设置麦克风输入的 dB 值，设置范围（-18—32）dB


4.风扇转速设置。FAN 按钮设置风扇转速，风扇转速等级可设置自动调速挡、手动（1-5）挡调速。选择自动调速挡时，根据设备温度变化自动调节风扇转速。选择手动挡时，风扇转速固定，不随温度变化而变化。（当使用环境温度过高导致设备温度比较高的时候，建议使用手动 5 挡，使风扇全速运行，降低设备内部的温度）


5.转场速率设置。RATE 按钮设置 WIPE/MIX/FADE 自动转场时的速率，可设置 1-3 个速度等级，分别对应 500ms，1000ms，1500ms。


6.PIP 大小设置。PIP_SZ 按钮，在 PIP 功能开启时， PIP 窗口的大小可以设置小、中、大三个等级。


7.PIP 位置调整。PIP 开启的状态下，点击 PIP 窗口，直接拖动即可移动 PIP 窗口的位置。

8.抠像设置。KEY 按钮选择当前抠像功能，可以选择亮度、色度 B、色度 G 。L+，L-设置对应抠像功能等级，设置范围（0-64）。（注意：抠像功能需要先设置抠像参数，再开启抠像功能才能生效）


# 7.录制推流的使用说明

1 录制功能说明

1.1 录制参数设置


F1 按钮开启录制推流设置菜单。（注意：用户使用时，每次需要先设置好录制参数之后，才能按录制按钮进行录制，不允许在录制的过程中去调整录制参数）


DISK 按钮选择当前存储介质，可以选择 TF 卡/USB（U 盘）/HARD（sata 硬盘）三种存储介质。

LEVEL 按钮设置录制等级，可以设置 L（低）/M（中）/H（高）三种码率。

1.2 录制开关按钮


1.3 录制状态

下图红框依次为录制状态、录制时长、存储硬件和容量、录制码率等级显示


2.推流功能说明

2.1 推流参数设置


按下 F1 按钮开启录制推流设置菜单。（注意：用户使用时，每次需要先设置好推流参数之后，才能按推流按钮进行推流，不允许在推流的过程中去调整推流参数）


RATE+、RATE- 设置推流码率，可以设置（1-10）Mbps。

ADDR+、ADDR- 选择用户保存的推流地址。用户可以预置 8 个推流服务器地址，默认为空，使用 web 页面设置。

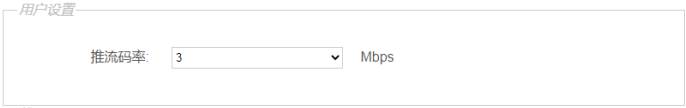
2.2 区域 2 中显示的是本机网口的 IP 地址，默认是自动获取 IP，未接上网线时显示 IP：0.0.0.0。接入网线后，DHCP 自动获取 IP 地址，使用电脑浏览器输入本机 IP 可以进入 web 设置页面。

2.3web 页面设置说明

在浏览器中输入本机 IP，进入到 web 设置页面，如下图：


2.3.1 设置本机 IP 地址，可设置 DHCP 动态获取 IP 或者静态手动设置 IP 地址。设置完成点击保存设置按钮，保存

2.3.2 设置推流码率




2.3.3 设置推流服务器的 rtmp 推流地址，可以预设置 8 组索引地址，用户可以分别设置 8 组地址并设置用户名，用于本机显示。显示长度限制 10 个字符。


状态显示说明:


1. PGM 输出接口和录制分辨率显示

| PGM 输出分辨率 | 录制分辨率 | HDMI 输出（扩展接口，依型号而定） |
|---|---|---|
| 1080P60 | 1080P60 | 1080P60 |
| 1080P50 | 1080P50 | 1080P50 |
| 1080I60 | 1080P60 | 1080P60 |
| 1080I50 | 1080P50 | 1080P50 |
| 1080P30 | 1080P30 | 1080P30 |
| 1080P25 | 1080P25 | 1080P25 |
| 1080P24 | 1080P24 | 1080P24 |

2. 麦克风输入音频 DB 值显示（-18~32DB）
3. 风扇模式及转速显示

| | | |
|---|---|---|
| FAN-A | 自动模式 | 温度变化控制转速变化（初始转速 300） |
| FAN-1 | 固定模式 | 235（最低） |
| FAN-2 | | 300 |
| FAN-3 | | 365 |
| FAN-4 | | 430 |
| FAN-5 | | 500（最高） |

4. MIX,WIPE,FADE 转场模式速率显示

| | |
|---|---|
| RATE1 | 320ms |
| RATE2 | 640ms |
| RATE3 | 1280ms |

5. PIP 画面大小显示
6. 抠像模式显示（Luma，Chroma-G，Chroma-B）
7. 抠像等级显示（0-64）
8. 温度显示

# 10. 故障及维修

(1)输出图像受干扰会闪烁，可能是使用的线材质量较差，线材的屏蔽层没有做好。当使用环境附近有强烈的无线电的时候，无线电波会干扰到信号的传输，导致信号闪烁不稳定。请使用正规厂家生产的线材，例如百通，佳耐美。
(2)当拔插音视频接口时，如果感觉到有明显的静电，有可能设备电源地线没有良好接地。请按正确方法接地，否则容易损坏主机，缩短主机寿命。
(3)当 RJ45(一般指：电脑网口)控制不了切换台时，检查控制软件所设定的通信口是否与所接设备的网口相对应；检查电脑的通信口是否良好。

- **维护**

请用柔软、干燥的抹布来清洁本设备。禁止用酒精、油漆稀释剂或汽油来清洁。确保本设备保存和工作在远离液体和污渍的环境中。用户没有自己处理的部件，所有服务和维修事项请联络本公司或者其它授权的分销商。

- **保修说明**

自购买之日起，DeviceWell 为本品提供 12 个月的保修服务。若本品在保修期内出现故障，DeviceWell 可为本品提供免费修理或更换零部件，在有必要的情况下可以进行更换缺陷产品的服务。为确保用户有权享受本保修条款中的服务，如遇产品出现故障请您务必在保修期内联系 DeviceWell 售后服务部，经确认后妥善安排保修事宜。缺陷产品，用户应将负责将产品包装并寄送到 DeviceWell 的指定服务中心进行维修,运费由用户承担并预先支付。若用户因任何原因退货，所有产生的运费、保险费、关税等各项税务以及其他费用均由用户自行承担。

- **保证限制和例外**

在上述的有限保证之外，本保修条款不适用于任何因使用、维护不当或保养不周造成的缺陷、故障或损坏。如产品因滥用，错误使用，疏忽，意外，异常的物理压力或者电压、未被授权的修改，窜改，改变或者由于本公司或它授权的代理以外其他人提供的服务造成的损坏，本公司将不用承担额外的义务。平常使用或者在该产品适用的应用中正确使用产品而引起的故障除外。根据本保修服务，DeviceWell 保修期内保修服务范围不包括以下内容：

1. 对由非 DeviceWell 专门人员进行的安装、维修或保养所造成的损坏进行维修；

2. 对因使用不当或连接到不兼容设备所造成的损坏进行维修；

3. 对因使用了非 DeviceWell 生产或提供的零部件所导致的损坏或故障进行维修；

4. 对经过改装或和其他产品进行组装的产品进行保养维修（产品经改装或组装后会增加保养维修所需时间或保养难度）。本保修条款由 DeviceWell 提供，它可取代所有其他明示或隐含的保修。DeviceWell 及其供应商对任何有关适销性及就特定用途的适用性等隐含保证不作任何担保。DeviceWell 负责为用户提供缺陷产品的维修或更换服务是完整和排他性补救措施，不论 DeviceWell 或其供应商是否事先获悉发生间接、特殊、偶然或必然损坏等损坏的可能性。若用户对本设备进行非法使用，DeviceWell 概不负责。对因使用本产品造成的一切损失，DeviceWell 概不负责。本产品的操作风险由用户自行承担。以上所有内容，DeviceWell 保留一切权利，并拥有最终解释权。

# Contents

# 1. Overview

## 1.1 Introduction

DeviceWell HD video switcher HDS8107/HDS8307/HDS8347 adopts portable integrated design, metal shell, small size and light weight, standard size of HDS8107/HDS8307/HDS8347: 192mm*124mm*34mm, suitable for small outdoor scenes video effects switching requirements. The device integrates multiview processor, special effect generator, audio processor, control keyboard and other common switcher components.

The device supports 4-CH HDMI input, of which HDS8347 supports 2-CH SDI and 2-CH HDMI signal input, a total of 4-CH video signals. External preview signal can be output synchronously. The device supports HDMI embedded audio + external analog audio. After mixing, it can be embedded into the output HDMI signal or output from the analog port. The resolution of all input signals is automatically adapted, and the resolution of output signals can be selected according to requirements, which is quite flexible. The 4-channel switcher is suitable for live performances, course recording and studio broadcasting, etc. The switcher has a variety of functions, such as video input in multiple formats and input resolution adaptive, analog audio input and output, audio embedding and de-embedding, audio mixing, Luma/Chroma key, PIP, TF card recording, RJ45 network port push Stream, with remote upgrade capability.

# 2. Functional characteristics

DeviceWell 4-CH HD video switcher is a multi-functional switcher that requires no professional knowledge, and can perform video switching and audio mixing with simple operations. This unit can be used in broadcasting, live broadcasting and various event venues.

- ◆Portable all-in-one design, metal body, high strength and light weight
- ◆Support PGM output and MutiView output
- ◆Support up to 4 inputs
- ◆Support 2 MIC input, 1 LINE IN input
- ◆Support 1 channel LINE OUT output
- ◆Support network push stream (RTMP)
- ◆Support audio follow, mix function
- ◆Support HDMI audio de-embedding
- ◆Support special effects switching, such as MIX/FADE
- ◆Support FTB and color bar output
- ◆Support screen freeze function
- ◆Support PIP windowing function
- ◆Support keying function (Luma or Chroma key)
- ◆Support PC remote control and DCB control
- ◆Support external expansion Tally system
- ◆Support DeviceWell wireless tally light
- ◆Support CUT and AUTO special effect switching
- ◆Built-in chassis temperature detection and fan
- ◆Intelligent control system
- ◆Support software online upgrade

# 2.1 HDS8 series MINI HD video switcher comparison

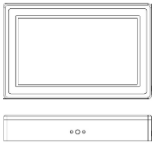


**HDS8 Series HD Video Switcher Function Comparison(Ver1.0)**

| No. | Function | HDS8102 | HDS8325 | HDS8101 | HDS8301 | HDS8107 | HDS8307 | HDS8345 | HDS8347 |
|---|---|---|---|---|---|---|---|---|---|
| Product interfaces | Input channel | 2*HDMI | 2*HDMI | 4*HDMI | 4*HDMI | 4*HDMI | 4*HDMI | 2*HDMI+2*SDI | 2*HDMI+2*SDI |
| | PGM output | HDMI*1 | HDMI*2 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 |
| | Multiview | LCD monitor | LCD monitor | LCD monitor | LCD monitor | LCD monitor | LCD monitor | LCD monitor | LCD monitor |
| | HDMI multiview out | X | X | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 | HDMI*1 |
| | DCB control | √ | X | √ | X | √ | X | X | X |
| | DCB2 control | X | √ | X | √ | X | √ | √ | √ |
| | SD card record | X | √ | X | √ | X | √ | √ | √ |
| | External USB record | X | √ | X | √ | X | √ | √ | √ |
| | Ext. SSD record | X | √ | X | √ | X | √ | √ | √ |
| | Network RTMP stream | X | √ | X | √ | X | √ | √ | √ |
| | Ethernet port (control/upgrade) | X | X | √ | √ | √ | √ | √ | √ |
| | TYPE-C(upgrade) | √ | √ | X | X | X | X | X | X |
| | TYPE-C(UVC) | √ | √ | √ | √ | √ | √ | √ | √ |
| | Control method | Touch | Touch | Button | Button | Touch | Touch | Button | Touch |
| | LCD size | 4" | 5" | 5" | 5" | 7" | 7" | 5" | 7" |
| | Device size (mm) | 91 x 91 x 29 | 137 x 91 x 30 | 192 x 124 x 33 | 192 x 124 x 33 | 192 x 124 x 34 | 192 x 124 x 34 | 192 x 124 x 33 | 192 x 124 x 34 |
| | 5v/12v dual power | √ | | | | | | | |
| | 2-CH MIC input | √ | √ | √ | √ | √ | √ | √ | √ |
| | 1 -CH LINE IN | √ | √ | √ | √ | √ | √ | √ | √ |
| | 1-CH LINE OUT | √ | √ | √ | √ | √ | √ | √ | √ |
| | T-bar | √ | √ | √ | √ | √ | √ | √ | √ |
| | 2 groups audio control faders | √ | √ | √ | √ | √ | √ | √ | √ |
| Special effects processing | Chroma Key | X | X | √ | √ | √ | √ | √ | √ |
| | Luma Key | X | X | √ | √ | √ | √ | √ | √ |
| | Color bar output | X | X | √ | √ | √ | √ | √ | √ |
| | FTB | X | X | √ | √ | √ | √ | √ | √ |
| | Color gamut | YUV | YUV | RGB | RGB | RGB | RGB | RGB | RGB |
| | Audio follow | √ | √ | √ | √ | √ | √ | √ | √ |
| | Audio mix | √ | √ | √ | √ | √ | √ | √ | √ |
| | Still | √ | √ | √ | √ | √ | √ | √ | √ |
| | Fan intelligent temperature control rate adjustment | √ | √ | √ | √ | √ | √ | √ | √ |
| | PC software control (network port) | X | √ | √ | √ | √ | √ | √ | √ |
| | MIX /FADE special effect transition | √ | √ | √ | √ | √ | √ | √ | √ |
| | 3 Transition Rate Adjustments | √ | √ | √ | √ | √ | √ | √ | √ |
| | PIP | √ | √ | √ | √ | √ | √ | √ | √ |
| | Highest resolution | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P | 1080P |
| | Input Resolution Adaptive | √ | √ | √ | √ | √ | √ | √ | √ |
| | Adjustable output resolution | √ | √ | √ | √ | √ | √ | √ | √ |
| Extensions | TALLY | √ | √ | √ | √ | √ | √ | √ | √ |
| | Wireless TALLY | √ | √ | √ | √ | √ | √ | √ | √ |
| | Foot pedal | √ | √ | √ | √ | √ | √ | √ | √ |
| | Device cascade | √ | √ | √ | √ | √ | √ | √ | √ |
| | Synchronous control | √ | √ | √ | √ | √ | √ | √ | √ |
| | External keyboard | √ | √ | √ | √ | √ | √ | √ | √ |

# 2.2 Device Size

Device size please refers to the size of the picture above.

# 3. Interfaces

## 3.1 Interface Introduction


| No. | Definition | Description |
|---|---|---|
| 1 | STREAM OUT | Type_C Interface、UVC Output |
| 2 | MultiView Out | HDMI MultiView Output |
| 3 | PGM OUT | 1*PGM Live Output |
| 4-7 | HDMI IN | 4-CH HDMI Input |
| 8 | Power | DC 12V Power Supply |
| 9 | Key | Switch and lock screen control |
| 10 | EXT HDD | External Hard Drive Disk |
| 11 | TF Card | TF Card Storage |
| 12 | LINE OUT | Stereo Audio Output |
| 13 | LINE IN | Stereo Audio Input |
| 14-15 | MIC IN | 2-CH MIC Input |
| 16 | DCB/DCB2 | DCB control (device cascade / wireless tally / external keyboard) |
| 17 | RJ45 | Network push/network upgrade/remote control |

| No. | Definition | Description |
|---|---|---|
| 1 | STREAM OUT | Type_C Interface、UVC Output |
| 2 | MultiView Out | HDMI MultiView Output |
| 3 | PGM OUT | 1*PGM Live Output |
| 4-5 | HDMI IN | 2-CH HDMI Input |
| 6-7 | SDI IN | 2-CH SDI Input |
| 8 | Power | DC 12V Power Supply |
| 9 | Key | Switch and lock screen control |
| 10 | EXT HDD | External Hard Drive Disk |
| 11 | TF Card | TF Card Storage |
| 12 | LINE OUT | Stereo Audio Output |
| 13 | LINE IN | Stereo Audio Input |
| 14-15 | MIC IN | 2-CH MIC Input |
| 16 | DCB/DCB2 | DCB control (device cascade / wireless tally / external keyboard) |
| 17 | RJ45 | Network push/network upgrade/remote control |

# 3.2 Technical Parameter

| ProductName | Portable 4-CH Video Switcher | |
|---|---|---|
| Model | HDS8107/HDS8307/HDS8347 | |
| Video Signal Input | Input signal | SDI/HDMI video signal |
| | Rate | 270Mbps~3Gbps |
| | Connector | Standard |
| | Reflection loss | >15dB 5MHz~3GHz |
| | Signal amplitude | 800mV±10%(SDI/HDMI) |
| | Impedance | 100Ω (HDMI)　75 Ω (SDI) |
| | Balance | Adaptive |
| | DVD input HDMIsupport | 480i/576i,480p/576p,720p,1080i,1080p |
| | ComputerHDMIinputsupport | 1920x1080,1680x1050,1600x900,1440x1050,1366x768, 1360x768,1280x1024,1280x960,1280x800,1280x768, 1280x720,1280x600,1152x864,1024x768,800x600 |
| Video Signal Output | Output signal | HDMI video signal |
| | Rate | 270Mbps~3Gbps |
| | Connector | Standard |
| | Reflection loss | >15dB 5MHz~3GHz |
| | Signal amplitude | 800mV±10%(HDMI) |
| | Impedance | 100Ω (HDMI) |
| | DC offset | 0V±0.5V |
| | Clock recovery | Optional |
| Control Parameter | Control protocol | CAN bus |
| | Connection port | 15-pin D-port |
| | Network control | RJ45,100M |

| | | |
|---|---|---|
| Common Parameters | Power supply | DC 12V |
| | Power | <20W |
| | Control panel | Support live production, integrate a variety of buttons |
| | Operating temperature | 0℃~50℃ No condensation |
| | Storage temperature | -20℃~75℃ |
| | Working humidity | 20%~70%RH |
| | Storage humidity | 0%~90%RH， No condensation |

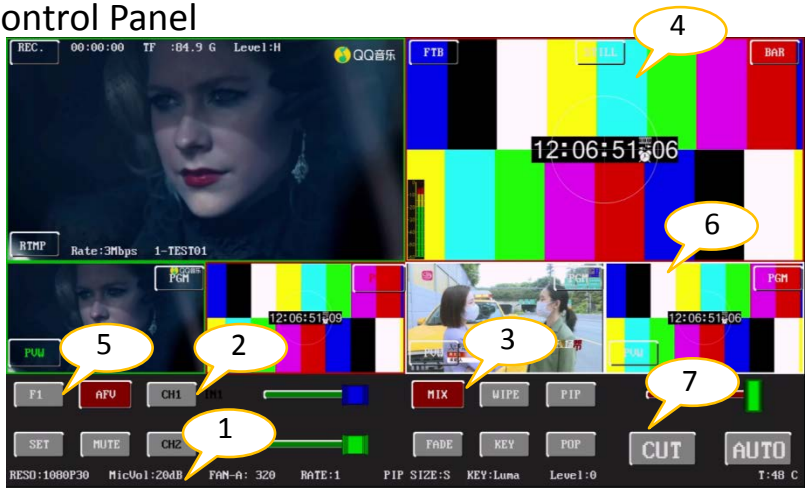
# 4. Control Panel and Interface

Before using the HD Mini Switcher, please take a few minutes to read this section. This chapter will introduce you the panel and interface of the HD switcher to facilitate your subsequent use and operation.

The new high-strength characteristics of the new aluminum alloy with high-strength characteristics improve the anti-drop, anti-shock and shock-proof capabilities of the whole machine, and effectively protect the internal components of the equipment. Ultra-lightweight features make the unit easier to transport and maintain without the need for additional equipment; it also offers unparalleled thermal performance.

In addition to the innovation of the case, the HD switcher has also been completely optimized for the interface connector. Environmentally friendly materials with new RoHS standards are more demanding in terms of durability and environmental protection, to provide customers with more stable, more environmentally friendly, more cost-effective products.

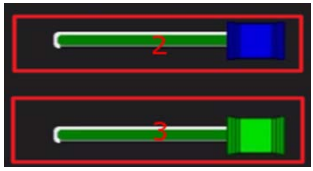
## 4.1 Control Panel



## 4.1.1 Area Description

| No. | Name | Description |
|---|---|---|
| 1 | Status display area | Real-time display of video and data of each operation |
| 2 | Audio control | Mainly set the audio follow, audio mix and control the audio volume |
| 3 | Transition effect control area | Select transition effects, PIP, Luma/Chroma key, etc. |
| 4 | Comprehensive control area | FTB, BAR and STILL effects |
| 5 | Menu control area | Set menu information |
| 6 | PVW& PGM select | Live and preview options |
| 7 | Transition control area | Control transition switching and transition rate adjustment |

### 4.1.2.2 Audio Control Area


- **How to use the audio follow mode：**

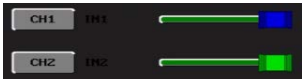
1、In the audio follow mode, both zone 1 and zone 3 are disabled and cannot be operated. Slide the slider of area 2 to set the volume of the current audio output.

（Note: The button color displayed in the picture is different from the actual effect picture, please forgive me）

- **How to use the mix assignment mode：**

2、Mixing mode status, as shown in the figure below.


3、The volume adjustment of the audio follow mode is controlled by the buttons on the operation panel; Pressing the AFV button in the follow mode (green light is displayed) will follow the audio of the PGM live channel by default. At this time, you need to increase or decrease the volume, just slide the right; the slider can set the volume of the channel.




4、The channels assigned by the mix are IN1, IN2, IN3, IN4, PHONE_IN, MIC_IN1, MIC_IN2. In the mix assignment mode, there are two more audio embedding functions; PHONE_IN means 3.5 audio interface, MIC_IN means 3.5mm microphone audio interface; PGM The live output can mix two channels of audio arbitrarily at the same time, and the volume of the two channels of audio can also be adjusted separately. The slider on the right can set the volume of channel 1.

5、In mixing mode, set the input source of audio channel 2, you can set IN1/IN2/IN3/IN4/PHONE_IN/MIC_IN1/MIC_IN2, and the slider on the right can set the volume of channel 2.

6、The MUTE button can mute the output audio with one click.


### 4.1.2.3 Transition effect control area

There are three transition modes:

MIX transitions, FADE transitions, wipe transitions

The wipe transitions include: up, down, left and right wipe transitions.

1.1MIX –Mix mode


1.2WIPE-wipe mode, four types of wipe modes can be set up, down, left, and right.


1.3FADE- Fade in and out mode


2. Key, PIP, POP switch (KEY, PIP, POP functions are mutually exclusive, only one function can be enabled at a time).

2.1 PIP switch, after turning on PIP, you can set the size of the PIP in the setting menu, and drag the PIP window directly to move the display position of the PIP window. After setting the PIP window, you also need to press the CUT button to output the PIP window to the PGM window output.


2.2 POP switch, after the POP is turned on, you need to press the CUT button to output the POP window to the PGM window output.



3.CUT， AUTO， T-bar video transition function


3.1 CUT button, video direct cut function, when the PIP/POP/KEY function is not turned on, this button directly exchanges PVW and PGM. When the PIP/POP/KEY function is enabled, switch the function screen of the PVW window settings to the PGM window output display.

3.2 AUTO button, this button is the screen of automatic transition between PVW and PGM. The transition mode can be selected from MIX/WIPE/FADE mode, and the switching time is determined by the set RATE rate.

3.3 T-bar slider, manual transition between PVW and PGM screens, and MIX/WIPE/FADE mode can be selected for transition mode.

### 4.1.2.4 Comprehensive control area


- **FTB Field to black**

FTB is defined as emergency black output, click the FTB, the font red flashes, and the FTB emergency black output function is enabled; click the FTB, the font white does not flash, and the FTB emergency black out function is turned off.

- **STILL screen freeze effect**

Screen freezing effect: Click the STILL, the STILL font will turn red and steady, indicating that the function is enabled. At this time, the output PGM video animation will enter the frozen state, click the STILL again to release the freezing function, and the picture will return to normal.


- **BAR Color bar test screen**

Click the BAR, and the BAR font turns red, indicating that the function is enabled. At this time, the PVM window and PGM window in the multi-screen will become color bar images, and the output PGM signal is also a color bar image. Click the BAR again to close the color bar and the picture returns to normal.

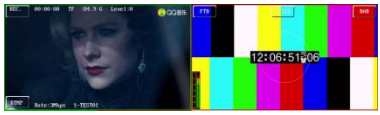
### 4.1.2.5 PGM and PVW selection

- **Multiview Introduction**

Preview and Program are PVW and PGM respectively. As shown on the right

There are 4 windows below corresponding to the input source,

each window has PGM/PVW.




PVW PGM


- **PGM and PVW output signal**

After the device is connected to the video signal source, click the PGM or PVW in the small window, and the live and preview signal sources in the output multiview monitor are the corresponding lighted PGM and PVW respectively. The effect picture is shown on the right, the signal sources are HDMI IN1 and HDMI IN2.

- **PGM and PVW source switching**

If you want to switch between live and preview sources in multiview (PGM ⇌ PVW)

Suppose you want to convert the live signal source 1 (PGM) and the preview signal source 2 (PVW) into 2 (PGM) and 1 (PVW) in the multi-screen, just click the PGM and PVW in the small window, and then click AUTO or CUT switch. The live PGM signal sources 1-4 can be switched arbitrarily with the preview PVW signal source.

# 5. TYPE-C Interface connection with OBS software

**Step 1: Connect the board to WIN7 through the TYPE-C data cable. After the WIN7 end is recognized, HDS8347 Audio/HDS8307Audio and HDS8347Video/HDS8307 Video will appear in the device list, which means the recognition is ok.** As shown in Figure 1. Figure 1 Audio and Video in the device manager.

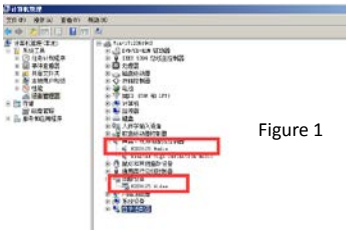


Figure 1

**Step 2: Add a Video Capture Device**

Open the OBS software, click the "+" in the source box in the lower left corner of the interface, and then click "Video Capture Device", as shown in Figure 2.

After clicking "Video Capture Device", an interface that can modify the name will appear, and the name can be customized. As shown in Figure 3.

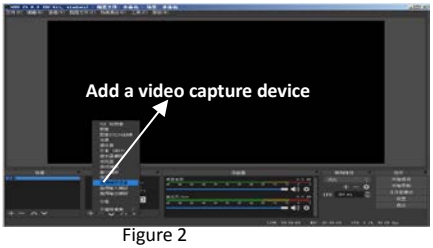



Figure 2


Figure 3

**Step 3: Set Video Capture Device Properties**

① Set video properties.

Device selection: HDS8347 Video /HDS8307 Video;

Resolution/Frame Rate Type selection: custom; resolution can be selected: 1920*1080, 1280*720, 640*360 as shown in Figure 4.

②Pull down to set the audio properties.

Audio output mode selection: output desktop audio (WaveOut); check Use custom audio device

Audio device selection: Capture Input terminal (HDS8347Audio /HDS8307 Audio), as shown in Figure 5.


Figure 4

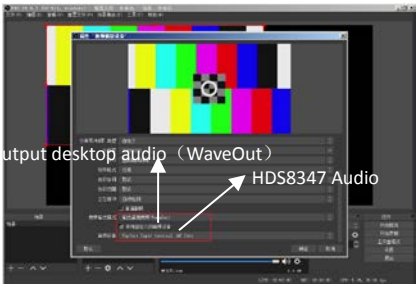



Figure5

Note:

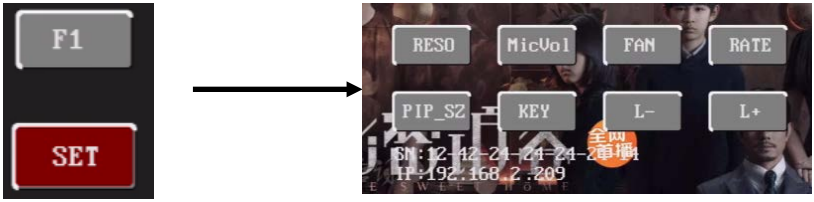
1. The latest OBS version 25.0.1 can choose H264 in the video format, so the image quality will be improved.

2. Before each use, you need to connect the device to the computer, and then open the OBS software; otherwise the OBS software cannot recognize the USB device.

# 6. System menu settings

- **Menu display**

1. SET button, open the menu setting; you can set the PGM output resolution. Microphone input audio dB value, fan speed, PGM, PVW video transition rate. PIP size, key selection and key level settings.




2. PGM output resolution setting. RESO button to set PGM output resolution,

support 1080P60/1080P50/1080P30/1080P25/1080P24/1080i60/1080i50 output.


3. Microphone input dB value setting. The MicVol button sets the dB value of the microphone input, the setting range is (-18-32) dB

4. Fan speed setting. The FAN button is used to set the fan speed, and the fan speed level can be set to automatic speed regulation, manual (1-5) speed regulation. When the automatic speed control gear is selected, the fan speed is automatically adjusted according to the temperature change of the equipment. When manual gear is selected, the fan speed is fixed and does not change with temperature. (When the ambient temperature is too high and the temperature of the device is relatively high, it is recommended to use manual 5th gear to make the fan run at full speed and reduce the temperature inside the device)


5. Transition rate setting. The RATE button is used to set the speed of WIPE/MIX/FADE automatic transition, and 1-3 speed levels can be set, corresponding to 500ms, 1000ms and 1500ms respectively.


6. PIP size setting. PIP_SZ button, when the PIP function is turned on, the size of the PIP window can be set to three levels: small, medium and large.


7. PIP position adjustment. When PIP is enabled, click the PIP window and drag it directly to move the position of the PIP window.


8. Key settings. The KEY button selects the current keying function, and you can choose luminance, chrominance B, and chrominance G. L+, L- set the corresponding keying function level, the setting range (0-64). (Note: The key function needs to set the keying parameters first, and then turn on the key function to take effect)


# 7. Record& Push stream

1 Record function

1.1 Parameter settings


The F1 button opens the record and stream settings menu. (Note: When using, the user needs to set the record parameters before pressing the record button to record. It is not allowed to adjust the record parameters during the recording process)

DISK button to select the current storage medium, you can choose TF card/USB (U disk)/HARD (sata hard disk) three storage media.

The LEVEL button sets the recording level, and you can set three bit rates of L (low)/M (medium)/H (high).

1.2 Record switch button


1.3 Record status

The red box in the figure below shows the record status, record duration, storage hardware, capacity, record bit rate and level.


2. Stream function

2.1 Stream parameter settings

Press the F1 button to open the recording push settings menu. (Note: When users use it, they need to set the streaming parameters first before pressing the streaming button to push streaming. It is not allowed to adjust the streaming parameters during the streaming process.)


RATE+, RATE- Set the streaming bit rate, you can set (1-10) Mbps.

ADDR+, ADDR- Select the push stream address saved by the user. Users can preset 8 push server addresses, which are empty by default and set using the web page.

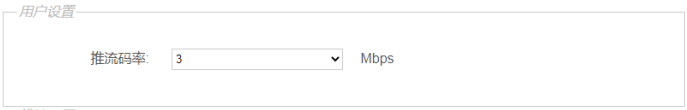
2.2 Area 2 shows the IP address of the network port of the machine. The default is to obtain the IP automatically. When the Internet cable is not connected, the IP address is displayed: 0.0.0.0. After connecting to the network cable, DHCP automatically obtains the IP address. Use the computer browser to enter the IP of the machine to enter the web setting page.

2.3 Web page setup instructions

Enter the device IP in the browser and enter the web settings page, as shown below:

2.3.1 Set the IP address of the machine, you can set the DHCP to dynamically obtain the IP or statically set the IP address manually. After the setting is complete, click the Save Settings button to save


2.3.2 Set the stream bit rate




2.3.3 Set the rtmp push stream address of the push stream server, you can preset 8 groups of index addresses; the user can set 8 groups of addresses and set the user name for the local display. Display length is limited to 10 characters.

Status display description:


1. PGM output interface and record resolution display

| PGM output resolution | Record resolution | HDMI Output (extension interface, depending on the model) |
|---|---|---|
| 1080P60 | 1080P60 | 1080P60 |
| 1080P50 | 1080P50 | 1080P50 |
| 1080I60 | 1080P60 | 1080P60 |
| 1080I50 | 1080P50 | 1080P50 |
| 1080P30 | 1080P30 | 1080P30 |
| 1080P25 | 1080P25 | 1080P25 |
| 1080P24 | 1080P24 | 1080P24 |

2. Microphone input audio DB value display（-18~32DB）
3. Fan mode and speed display

| FAN-A | Auto mode | Temperature change control speed change (initial speed 300) |
|---|---|---|
| FAN-1 | Fix mode | 235（Mini） |
| FAN-2 | | 300 |
| FAN-3 | | 365 |
| FAN-4 | | 430 |
| FAN-5 | | 500（max） |

4. MIX,WIPE,FADE Transition Mode Rate Display

| | |
|---|---|
| RATE1 | 320ms |
| RATE2 | 640ms |
| RATE3 | 1280ms |

5. PIP screen size display
6. Key mode display（Luma，Chroma-G，Chroma-B）
7. Key level display（0-64）
8. Temperature display

# 8. Failure and Maintenance

**Common Faults and Solutions**

(1) The output image may be flickered by interference. The quality of the wire used may be poor, and the shielding layer of the wire is not well prepared. When there is a strong radio near the use environment, radio waves may interfere with the transmission of the signal, resulting in unstable signal flicker. Please use the wire produced by regular manufacturers, such as Belden, Jia Nai Mei.

(2) When plugging in the audio and video interface, if there is obvious static electricity, the device power ground wire may not be good grounding, please ground in the correct way; otherwise it will easily damage the host and shorten the life of the mainframe.

(3) When RJ45 (generally: Computer network port) cannot control the Switcher, check whether the communication port set by the control software corresponds to the serial port of the connected device; check if the communication port of the computer is good.

**Maintenance**

Use a soft, dry cloth to clean the device. Do not use alcohol, paint thinner or benzene to clean. Make sure that the device is stored and operated in an environment away from liquids and stains.

**Warranty information**

The company guarantees that the process and materials of the product are not defective within 12 months after purchase from the company or its authorized distributors, under normal use and service support. We offer a one-year warranty after sale.