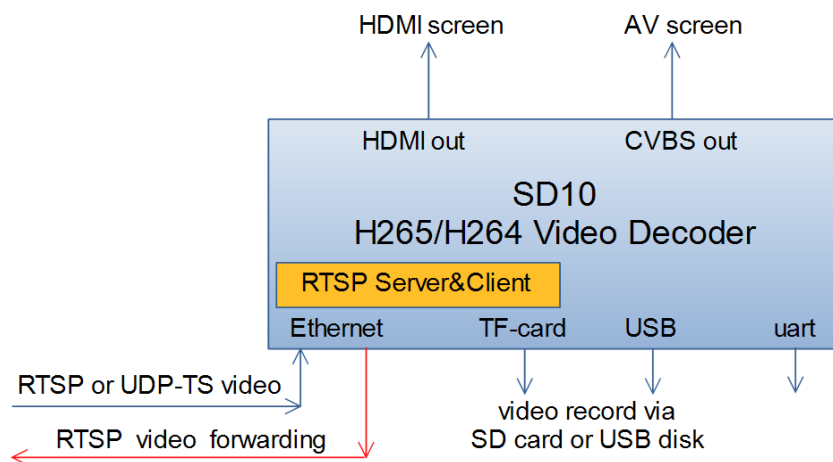# SD10 video decoder device

-- H.265/H.264 video decoder, high definition output up to 1920*1080@60

-- Ethernet input, HDMI+AV output

-- Video record with Micro SD card or USB disk

-- Web UI or uart for management

-- Optional: up to 4-ch 1080P video decoding and synchronous display

-- Optional: ultra-high definition 4K(3840*2160) video decoding and output

-- Optional: Audio codec with audio input and output

SD10 implements H.265/H.264 video decoding and audio codec, the video stream input via Ethernet is decoded and sent to display via HDMI and AV interface. The input video stream can be UDP-TS video or RTSP video too. The SD10 decoder board features a range of comprehensive signal outputs including HD video at 4K(optional)1080P/720P, down-converted HD CVBS monitor video, and two analog audios is supported. SD10 also supports decoding maximum 4 channel 1080P videos at the same time and display via split screen mode(optional). SD10 includes DVR record functionality with Micro SD card or USB disk using record switch controls. Additionally, the SD10 supports a built-in RTSP sever that enables video streaming over Ethernet for remote software or hardware decoders(optional). This device is in compact size and suitable for embedded application and real time live video monitor via wireless link or Ethernet.

when SD10 video decoder works paired with Sihid SE11/SE10 video encoder and Sihid two-way wireless linker, the video(1080P60) latency from its inputting of SE11/SE10 to the HDMI screen displaying of SD10 is about 250ms.

Specification:

IO

HD video output	HDMI type A connector
Composite video output	4PIN PH2.0mm connector
Audio output	Embedded HDMI and 4PIN PH2.0mm connector
Power in	XT30PW-M connector
USB Host	Type A connector
S/W Key[*]	Switch key for OSD-display Or switch key for 4-ch video display
Sport	5PIN ZH1.5mm connector, control uart and data uart, TTL 3.3V Optional: audio in
TF-Card	TF-Card slot
Ethernet	RJ45 connector
Power LED	Red led, light on when SD10 is normal powered
Video LED	Green LED, blinks when video stream is normal received and decoding

* S/W Key: turn on/off the status of the OSD displaying, long press it to switch(more than 1s). the status will be kept after reboot. When the OSD status is on without any OSD data input from the data uart, the system will display video information (video bitrates, etc.) on the video screen. When the OSD status is on with data input from the data uart, the system will display text information of the uart data on the video screen. When SD10 is shipped out with specified firmware to decode up to 4-ch 1080P video and synchronous display, this key is used for video display switch (split screen mode / full size of single-ch).

Video and Audio

Video output	HDMI and CVBS
Video formats	1080P or 720P 720*480 60I(NTSC), 720*576 50I(PAL) Optional: split screen for 4-ch 1080P videos and switch between videos Optional: 4K(3840*2160) video decoding and output
Video Decoding	H.264/H.265
Audio output	Embedded HDMI and AV audio
Audio Decoding/Encoding	AAC
Decryption	AES256
Storage	USB disk or micro SD card
Ethernet stream protocol	Support UDP TS stream decoding, RTSP client decoding, RTSP server forward

Monitoring and control
Web UI or control uart.

Temperature range
Full specification: 0° to +70°C Ambient (Optional: -40° to +85°C)
Storage: –40° to +85°C

Physical Characteristics
Dimensions: 91∗83∗30㎜
Weight: 160g

Power requirements
Input range: 7~28VDC
Power consumption: <250mA@12V