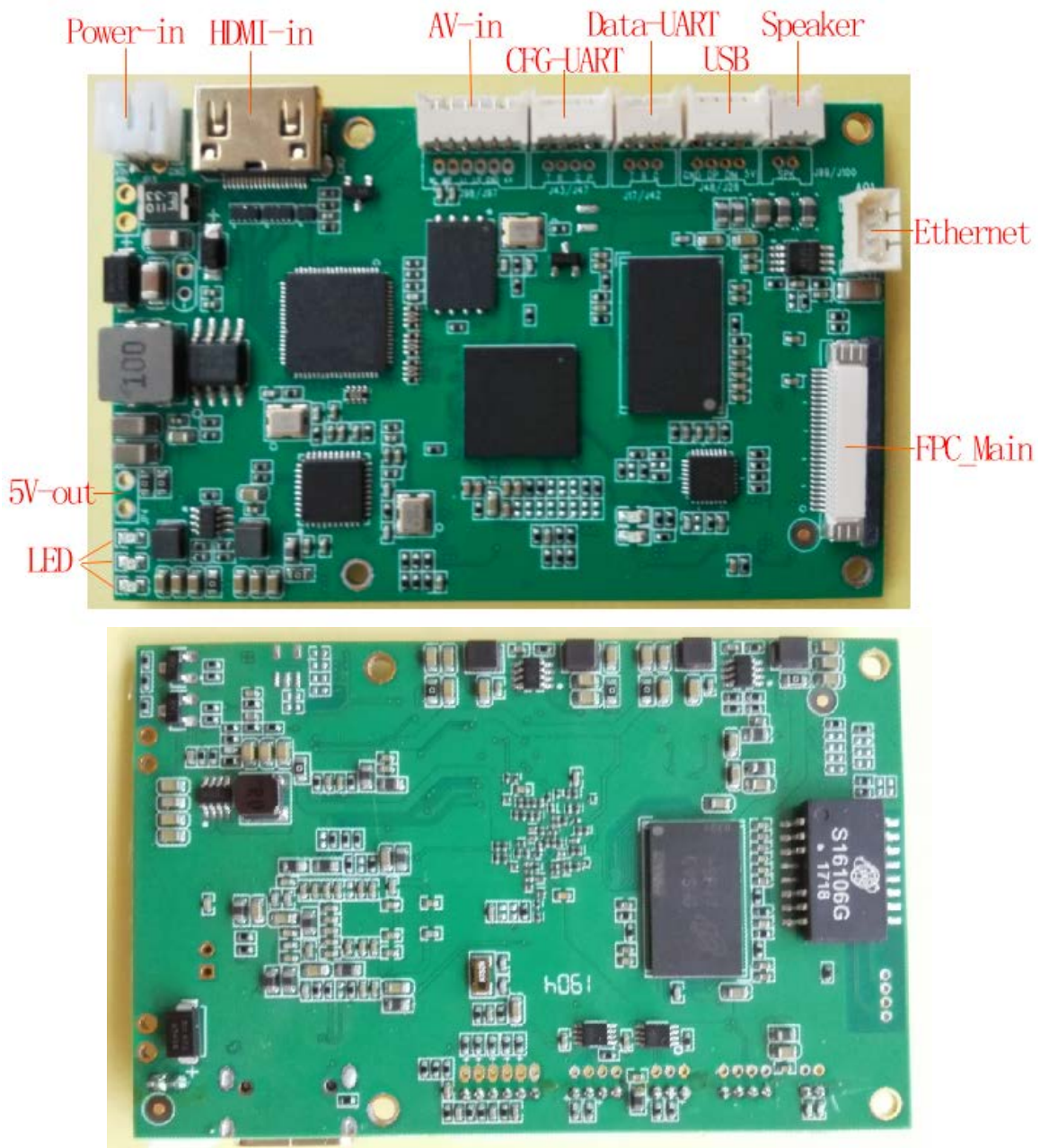


## SUE5 Video Encoder Module

- Low latency H.265/H.264 video encoder, full HD resolution, maximum 1080P60
- Audio codec with audio input and output
- Mini HDMI/AV input, Ethernet output
- Web UI or uart for management
- Optional: HDMI+AV input and encoding at the same time
- Optional: 4K video input and 4K encoder, maximum resolution 3840\*2160@30fps
- When paired with Sihid SHD5 decoder module, the H.265 video latency is about 200ms to 250ms
- When paired with Sihid SHD4 decoder module and in the lowest H.264 mode, the video latency is about 50ms to 130ms



SUE5 video encoder module implements H.265/H.264 video encoding and audio codec, the stream will output via Ethernet after encoding. One channel uart data can also be packed with the stream and output

to the Ethernet. The video encoding bitrates is controlled via control uart or web UI. The module is in compact size and suitable for embedded application and real time live video monitor via wireless link or Ethernet.

## Specification:

### IO

HD video input	Mini HDMI, type B connector
Analog video/audio input	6PIN PH1.25mm connector
Data uart	3PIN PH1.25mm connector, TTL 3.3V Baud rate adjustable
CFG-uart	Control uart, 4PIN PH1.25mm connector, TTL 3.3V
USB Host	4PIN PH1.25mm connector, for software upgrading and reserved for special application
Speaker	2PIN PH1.25mm connector, decoding the audio stream received from remote Ethernet device and output to a speaker. It can drive 1W speaker directly.
Power in	2PIN PH2.0mm connector
Ethernet	4PIN PH1.25mm connector
FPC_main	For connecting with Sihid COFDM modulator or two way OFDM modulator

### Video and Audio

Video input	HDMI or AV, auto-detected after system start-up Optional: HDMI+AV, encoding at the same time
Video formats	1080@60P, 1080@50P, 1080@30P, 1080@25P, 1080@24P, 1080@60I, 1080@50I, 1080@30I, 720@60P, 720@50P, 720@30P, ..... 720*480 60I(NTSC), 720*576 50I(PAL) Optional: 4K, maximum 3840*2160@30fps
Video encoding	H.265/H.264, setup via control uart or Web UI; Bitrates adjustable; Supports proprietary H.264 video compression only used p-frames for lowest latency(the encoding and decoding latency is about 50ms to 130ms when works with Sihid SHD4 decoder module) .
Audio input	Embedded HDMI or analog audio
Audio Coding	AAC, 16bit, stereo, 32Kbps
Encryption	AES256
Ethernet stream protocol	UDP TS stream, RTSP stream, UDP TS stream + RTSP stream

### Monitoring and control

Comprehensive setup with Sihid Config Panel or other device via control uart.  
Or setup via Web UI.

### Temperature range

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

### Physical Characteristics

Dimensions: 70\*45mm(not including connectors out of the board)  
Weight:15.5g

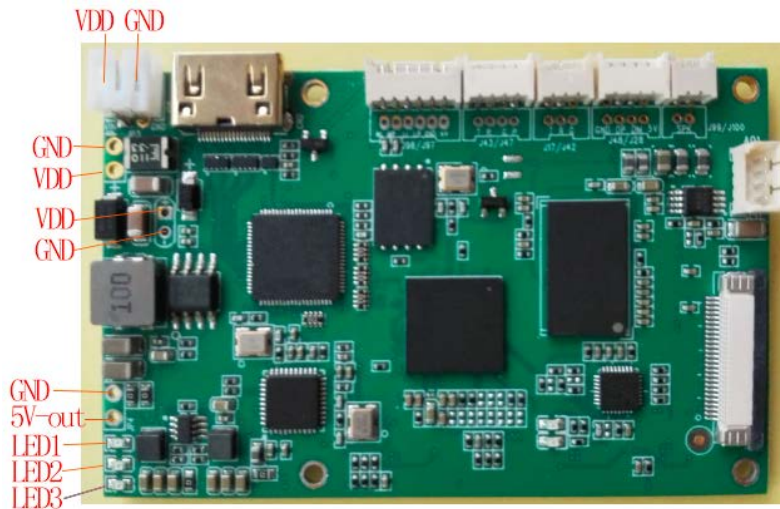
### Power requirements

Input range: 7~24VDC  
Power consumption: <200mA@12V

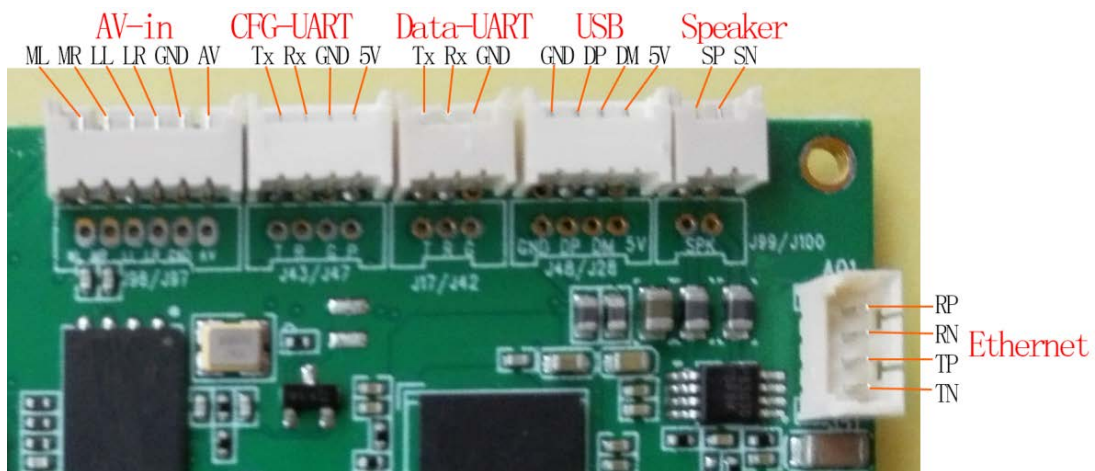
### I/O signals:

The power input interface is a 2PIN PH2.0mm connector. Two pairs of 2PIN power supply holes are

reserved on the board. One pair of power supply holes are directly connected to the power input signal, and the other pair of power supply holes are exposed after anti-reverse protection. The module also provides a 5V power output for fan that it may be required when the module is integrated with wireless modules.



- LED1: constant light when the board is normal powered.
- LED2: constant light when the input video is detected successfully by the module, otherwise it will not light.
- LED3: blinks when video encoding normally.

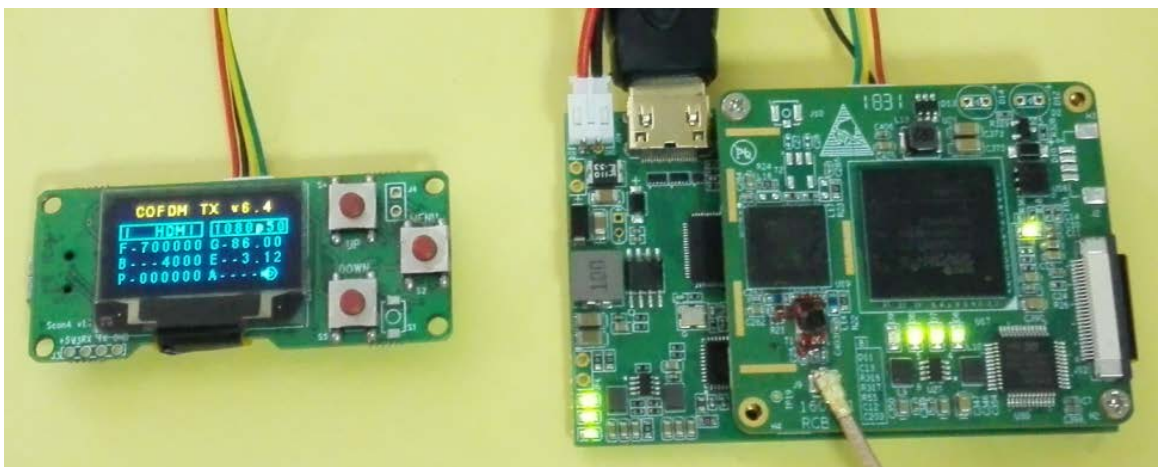


#### AV-in

PIN	Signal
AV	Analog video input
GND	GND
LR	Line in right(Audio)
LL	Line in left(Audio)
MR	Mic in right(Audio)
ML	Mic in left(Audio)

#### Data uart

The SUE5 encoder module supports one channel uart data packed with the stream and output to the Ethernet. When SUE5 module works paired with Sihid decoder module (SHD5, SHD4, SHD3, SHD2, SHD1, etc.) and Ethernet linker (wireless or wire), the data to this uart will be transferred to the data uart of Sihid decoder module.



SUE5 encoder module worked with Sihid RCB COFDM modulator and SconA config panel