SR300 COFDM Wireless Downlink Receiver

--160MHz~860MHz HD video COFDM wireless downlink Receiver with HDMI/AV/USB output

The Sihid SR300 COFDM Diversity Receiver is a compact digital diversity receiver with integrated H.264/H.265 decoding in a compact and lightweight housing, suitable for use in fluid and high-mobility applications. The unit accepts signals from two antennas to significantly enhance the demodulated performance and increase the operating range. The SR300 can find and lock automatically to the incoming transmission quickly according to the pre-set frequency and bandwidth. This receiver features a range of comprehensive signal outputs including HD at 720p and 1080P, down-converted HD CVBS monitor video, and two analog audios is supported.

The SR300 also includes DVR record functionality with Micro SD card or USB disk using REC switch controls. And the SR300 also enables video streaming over USB for remote Android device decoders like Smart phone or Android PAD. This allows multiple remote viewers to monitor the same video simultaneously.

When paired with the Sihid COFDM wireless Downlink camera transmitter, the SR300 offers a comprehensive, rapidly-deployable video and audio solution that enables advanced situational awareness. It can play an essential role in delivering real-time live video from both ground and airborne mobile platforms.

- COFDM demodulation and H.264/H.265 video decoder;
- Full HD resolution, 1080P@60fps; Optional 4K@30fps(3840*2160P).
- Great security by AES decryption;
- DVR record with Micro SD card or USB disk;
- Enables video streaming over USB host for remote device;
- Stable signal transfer in NLOS and high speed moving;
- Adjustable working frequency, band width.

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
RF input	Two SMA female 50Ω
Power in	2PIN PH2.0mm connector
USB Host	Type A connector
OSD Key	Switch key for OSD-display
Rec Key	Switch key for Video recording
3.3V TTL data uart	3PIN PH1.25mm connector
3.3V TTL control uart	4PIN PH1.25mm connector
TF-Card	TF-Card slot

Demodulation

Demodulation Formats	COFDM(DVB-T)
Carriers	2K
Bandwidth	Configurable from 1MHz to 8MHz, step by 1KHz
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/32, 1/16, 1/8, 1/4
Constellation	QPSK, 16QAM, 64QAM
Bitrates	0.5Mbps to 31.67Mbps

RF

Frequency Bands	160MHz~860MHz
Tuning Step size	1KHz
Sensitivity	-97±1dBm(BW=8MHz, QPSK, CR=2/3, GI=1/16) for one channel and add 3dBm for two channel

Video and Audio

Video output	HDMI and CVBS, USB
Video formats	1080P or 720P 720*480 60I(NTSC), 720*576 50I(PAL) Optional 3840*2160P

Video Decoding	H.264/H.265
Audio output	Embedded HDMI and AV audio
Audio Decoding	AAC
Decryption	AES256
Storage	USB disk or micro SD card

Monitoring and control
Comprehensive receiver setup with Sihid Config Panel or Windows PC or other device via control UART.

Temperature range
Full specification: 0° to +70°C Ambient
Storage: –40° to +80°C

Physical Characteristics
Weight: 169g
Dimensions: 91x80x30mm

Power requirements
Input range: 7~16VDC
Power consumption: about 250mA@12V

Keys & LEDs:
The SR300 has 3 LEDs:
PWR LED: power indicator, red constant light when device is normal powered;
Link LED: wireless link indicator, green blinks when video stream received;
REC LED: record indicator, green constant light when video recording

REC key: switch button for video recording, short press to change it's status. The receiver will automatically check the storage device(micro SD card or USB disk, priority SD card) after power on and start to record video when the storage device is inserted. Just press the button to stop or record again.

OSD 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 device will display information on the video screen as:

RF：338.0MHz BW：4.0MHz	; RF, working frequency; BW, bandwidth
QPSK CR：2/3 GI：1/16	; Constellation, FEC, Guard interval
AIR：3.90Mbps	; AIR, wireless transmitting bitrates
VBR：3.05Mbps AES OFF	; VBR, video bitrates; AES OFF, AES encryption turned off.
SIG1：27 SIG2：22	; SIG1, signal intensity of ant 1; SIG2, signal intensity of ant 2
ber1：0.14% ber2：100.00%	; ber1, bit error rate of ant 1; ber2, bit error rate of ant 2
REC OFF No Storage	; video recording status