

ST220 COFDM Wireless Downlink Transmitter



--1W/2.5W HD video COFDM wireless downlink transmitter with HDMI or SDI or AV input interface

The ST220 wireless digital video transmitter was designed for use with HD or SD cameras, it's a superior miniature wireless video transmitter designed to capture real-time, high-quality video from Point of View Cameras, UAV/UGV/Body Cams/Concealments, and sports cameras. The transmitter features HDMI or SDI or AV inputs with COFDM modulation technology and H.264/H.265 encoding that complete video audio transmission in high-speed motion and NLOS (none line of sight) conditions with low latency. The ST220 delivers up to 2.5W of power in a small metal case weighing less than 142 grams, providing long range, reliable HD video transmission.

Features:

- COFDM modulation and H.264/H.265 video compression;
- Full HD resolution, 1080p/i @60fps;
- Supports two channel videos at the same time(optional)
- Great security by AES encryption;
- Modular design and high integration;
- Stable signal transfer in NLOS and high-speed motion;
- Adjustable working frequency, band width, bitrates, RF power, etc.



Specification:

IO

Order Model	ST220-HDMI	ST220-SDI
HD Video input	HDMI Type-A connector	SDI, SMA female connector
Composite Video input	4PIN PH1.5mm connector	4PIN PH1.5mm connector, AHD input compatible
UART data	3PIN PH1.5mm connector, TTL 3.3V by default(optional RS232)	
TTL UART control	4PIN PH1.5mm connector, TTL 3.3V	
Power in	XT30PW-M connector	
RF output	SMA female	

Modulation

Modulation 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	Specify: 300~360MHz 350~400MHz 450~500MHz 520~560MHz 580~620MHz 680~720MHz 820~860MHz Other ranges available from 200~860MHz
Tuning Step size	1KHz
Transmission power	2.5W(34dBm) or 1W(30dBm)

Video and Audio

Video input	HDMI or SDI or CVBS, auto-detected after system start-up Optional: two channel video input/encoding/transmit 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)
Video Coding	H.264/H.265
Audio input	Embedded HDMI or Embedded SDI or AV audio
Audio Coding	AAC, 16bit, stereo, 32Kbps
Encryption	AES256

Monitoring and control

Comprehensive transmitter setup with Sihid Config Panel or PC or other device via Control UART.

Temperature range

Full specification: 0° to +55°C Ambient

Storage: -40° to +80°C

Physical Characteristics

Weight: 141.5g

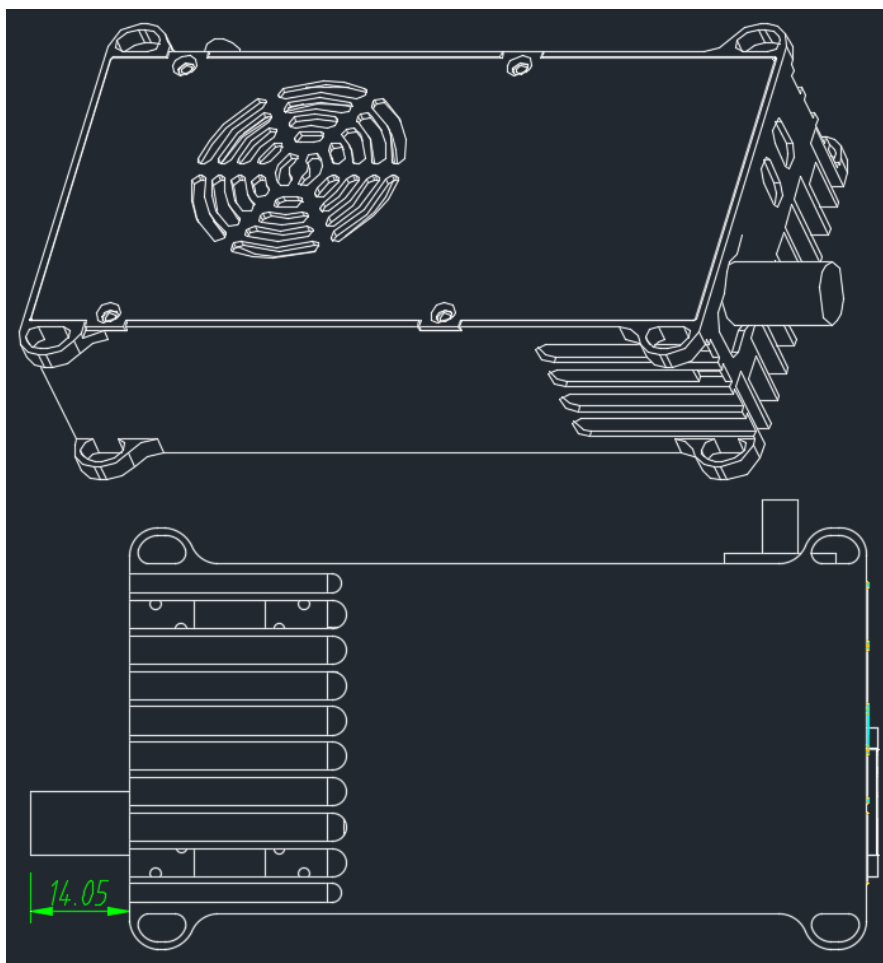
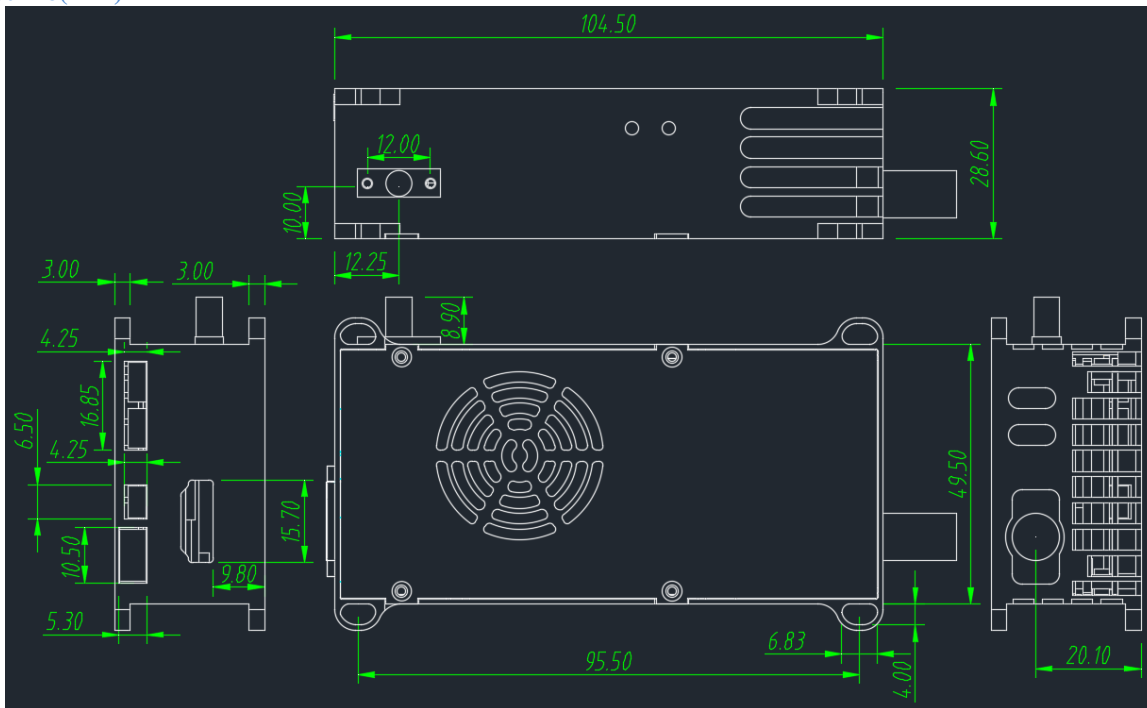
Dimensions: 104.5*49.5*28.6mm (not including connectors out of the board)

Power requirements

Input range: 11~13VDC

Power consumption: <2.1A@12V(2.5W RF power) , <1.3A@12V(1W RF Power)

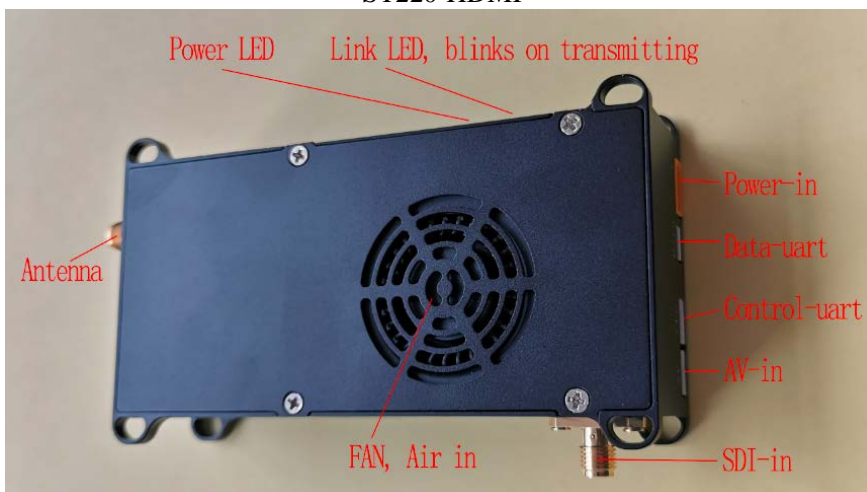
Outline(mm)



IO signals



ST220-HDMI



ST220-SDI



AV-in

Analog video and audio input, 4 PIN PH1.5mm connector.

PIN	Description
AV	Analog video input
GND	GND
AR	Right channel audio input
AL	Left channel audio input





