

INSIGHT(领悟) 1080P FULL HD Digital Video Downlink Transmission Unit

Thank you for purchasing the Insight 1080P Full HD Unit. Experience true HD digital video transmission in a compact easy to use package.

Users must comply with local radio transmission laws and regulations when using this product. In using this product, you hereby agree to this disclaimer and signify that you have understood all points completely. When assembling this product, do so carefully. The manufacturer and seller assume no liability for any damage or injury to person or property arising from the use of this product.

Operating Instructions:

Fully charge the receiver unit. Connect a 5.0v Micro USB charger to the receiver unit. The "CHG" LED will emit green indicating the unit is charging. When the receiver unit is done charging the LED will turn RED.

When powering on the receiver unit, the system will take approximately 35 seconds to boot up. Open the Wi-Fi setting on your device and search for the Wi-Fi SSID as IN-XXXXX. Enter the default password 12345678 to link to your device. You will need to download the dedicated APP to modify the password or Wi-Fi channel, please refer to the channels used by local laws and regulations.

Verify your cameras HDMI output resolution and select the corresponding video definition on the Insight APP. After our testing, although rated at 1080P recording, we found that most cameras only output 720P through HDMI because of the camera's own firmware or a hardware limitation. Confirm actual HDMI output resolution of the camera and select the proper rating on the APP for proper video feed.

We recommend 3 APPs to be used with our product. The APPS can be downloaded on <http://www.argusfpv.com/downloads.html>. **INSIGHT** is a flight viewer software which extends more than 6 PWM outputs so you can control some PWM devices (Gimbal, Servo). **Tower-Insight** is a ground control software that can display the parameters from the aircraft and allows you to a flight path for the aircraft. **Insight-Switch** is a dedicate software that allows you to modify the Wi-Fi SSID, Wi-Fi password, and Wi-Fi channel.

For updates and support information and related video tutorials, please contact your Insight dealer or refer to the Argus official website <http://www.ArgusFPV.com> to get the latest updates.

In order to get a good signal, pay attention to the orientation of the antenna. Please keep the receiver side antenna pointed at the aircraft to ensure the best signal, please ensure the transmitter side antenna element (brass) is pointed vertically upward or downward.

Features:

•5G Full HD digital transmission

- Video input support up to 1920x1080@60fps, Video output support up to 1920x1080@30fps
- Use of 5G radio technology. TX power 200mw (CE certification and FCC certification) ;
- Ground control with 5db standard omni-directional antenna, transmission distance over 2km
- Ground control with the 14db custom directional antenna, transmission distance over 4km

•Input and Output

- HDMI Input
- 5G WI-FI FHD Output: Android and ios devices can be used as a monitor after connected the APP.

• Interference resistance

- Downlink MIMO multiple antenna technology with OFDM modulation and advanced algorithms to improve stability of data bandwidth in complex environments and improved overall dynamic performance.
- Near real-time downlink signal system dynamically selects the optimum channel (out of 24 channels)for transmission.
- supporting up to 24 devices working at the same time;

•Low latency

- System maximum time delay 80ms;

•OSD function

- Built in OSD function, you can achieve the information superposition function with the APM, PIX, PIXA without the use of an external OSD.

•Flight control system

- Without any restrictions for APM, PIX, PIXA or others. Insight itself has built-in data transmission

• Multi-mode and information security

- Ground side can link over two devices.
- The encrypted video transmission can only be received by the authorized ground module.

•Battery and charge

- The ground module has a built-in 1300mAh large capacity battery; the device can work continuously for 2 hours, and can be charged by a power bank.
- Air system: input voltage 5-18V (Optional voltage input is 7-28V)

Product specification

Video input: HDMI

Support format (HDMI) : 720P 50fps; 720P 60fps; 1080I 50fps; 1080I 60fps; 1080P 25fps; 1080P 30fps; 1080P 50fps; 1080P 60fps

RF parameters: 5GHz, FCC certification

Interface (Ground system) : LED; power switch; charge input; USB 2.0

Interface (Air system) : LED; HDMI input; PWM output; TTL transmission;

Material: Aluminum alloy

Power (Ground system) : DC 5v; Built-in battery; Watts: 6W

Power (Air system) : DC 5~18V; Watts: 8W

Size (Ground system) : 68*48*15(mm)

Size (Air system) : 62*32*23(mm)

Weight (Ground system) : 100g

Weight (Air system) : 58g

Transmission distance (outdoor) : with the 5db omni-directional standard antenna, transmission distance over 1 km, with the 14db custom directional antenna, transmission distance over 4km

Output delay: 80ms/0.08s

Band frequency: 5.1GHz - 5.8GHz

Modulation mode: MIMO - OFDM

Video input: Micro HDMI

Compatible input video format: HDMI all format, up to 1920x1080P@60fps

Output format: 640x480p@30/60fps, 1280x720p@30/60fps, 1920x1080p@30fps

Compression: HEVC High definition television broadcasting

Channels: 24 channels (Automatic frequency hopping, anti-jamming)

Supported devices: Phone, Tablet, PC

Supported system: Android, Windows

Data interface: UART data transmission interface

PWM control interface: 4 PWM control output, you can control the gimbals and other external devices.

Communication encryption: 256bit encryption

Temperature: -10°C - 60°C

Certification: FCC Certification

Included in the box:

2x SMA interface 5DB Paddle type antenna

2x MMCX interface 5DB Circular tube antenna

1x Micro HDMI to Mico HDMI

1x APM flight control cable

1x PIX flight control cable

1x Other DIY DUPOND control cable

1x Gimbal PWM cable

1x Power module

1x Transmitter

1x Receiver

Items	Parameter
Transmission distance (outdoor)	with the 5db omni-directional antenna, transmission distance over 1 km, with the 14db directional antenna, transmission distance over 5km
Output delay	70-100ms
Band frequency	5.1GHz-5.8GHz
Modulation mode	OFDM
Video input	Micro HDMI
Compatible input video format	up to 1920x1080P @ 60fps
Output format	352x288@30fps, 720x576@30fps, 1280x720p@30/60fps, 1920x1080p @ 30fps
Compression	HEVC High definition television broadcasting
Channels	24 channels (Automatic frequency hopping, anti-jamming)
Support devices	Phone, Pad, PC (need to support 5G WIFI)
Support system	Android
Data interface	UART data transmission interface
PWM control interface	4 PWM control output, you can control the gimbal and other external devices.
Communication encryption	256bit encryption
Temperature	-10°C-60°C
Certification	FCC Certification

Air system

Item	Parameter
Size	62mm*32mm*23mm
Weight	58g
Interface	5V DC input
Battery	Mico HDMI*1 /UART*1/PWM*4

Receiver system

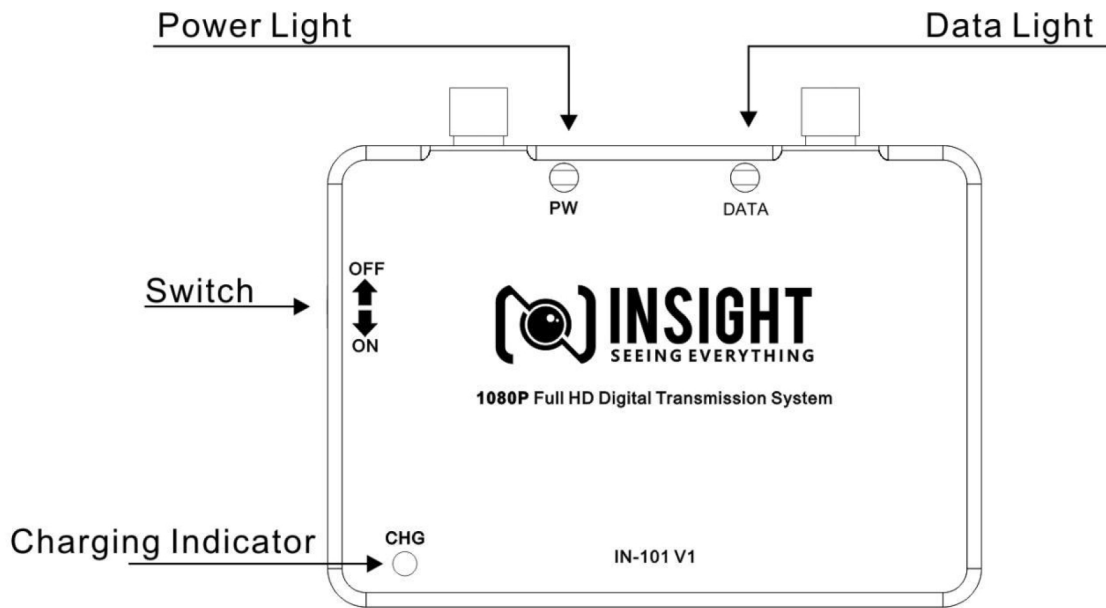
Item	Parameter
Size	68mm*48mm*15mm
Weight	100g
Interface	Micro USB 5v
Battery	Ground system built-in 1300mAh large capacity battery, the device can work continuously for 2 hours.



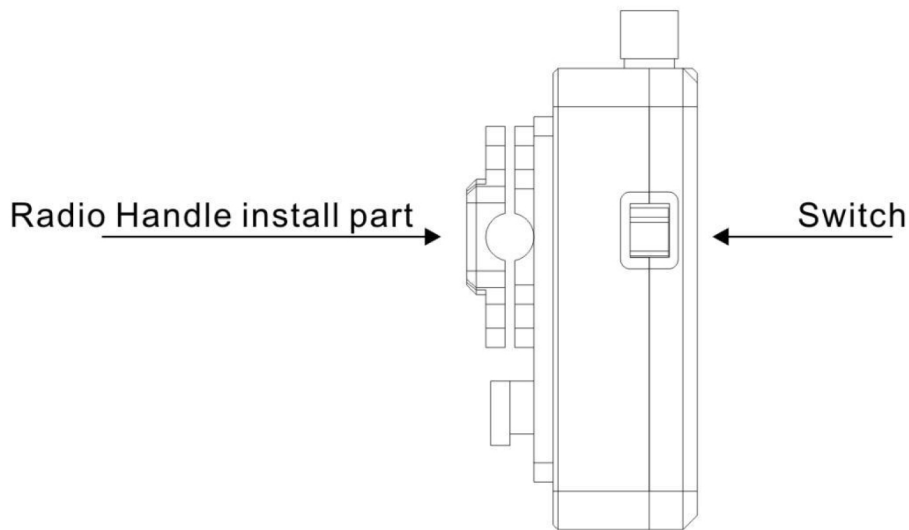
1080P Full HD Digital Transmission System

IN-101 V1

1: Ground System



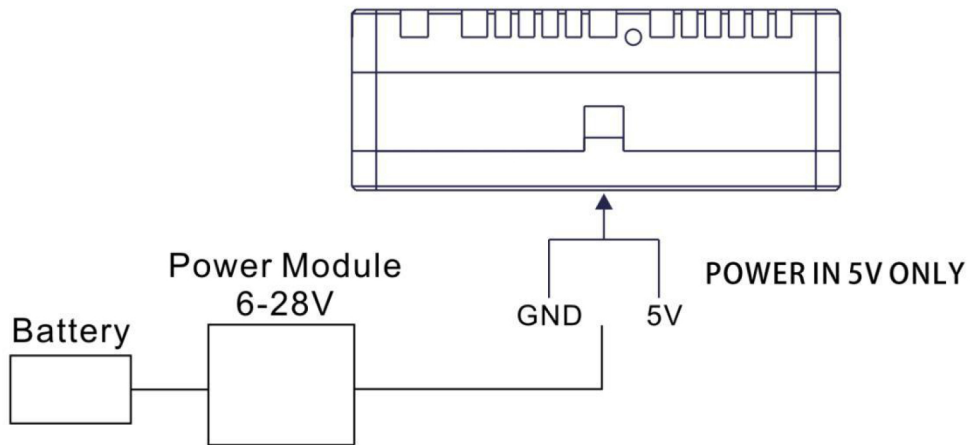
Front View



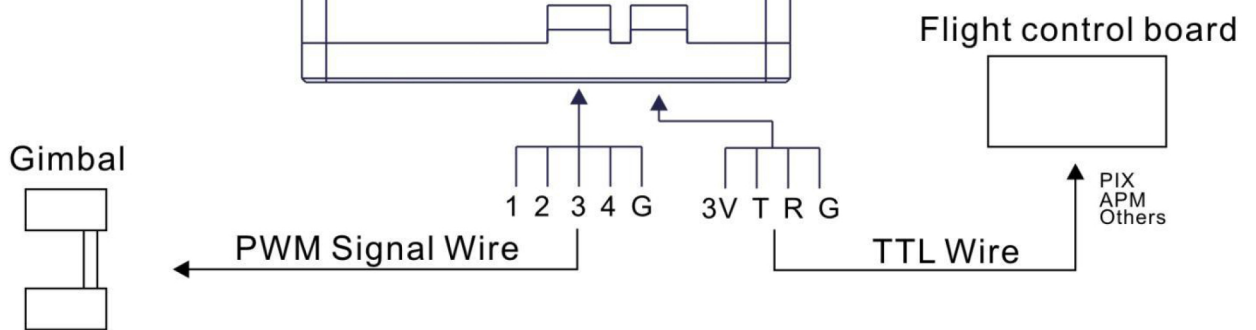
Side View

2: Air system

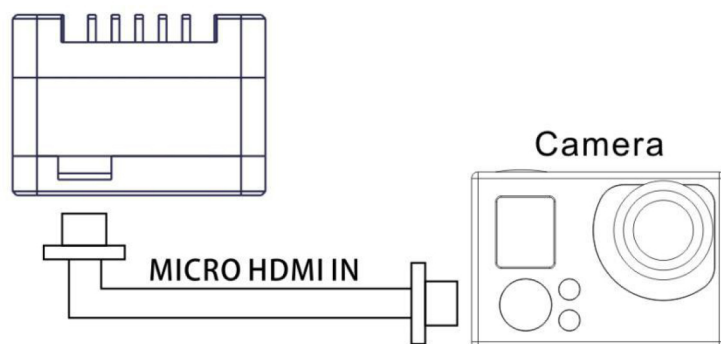
Left Side View



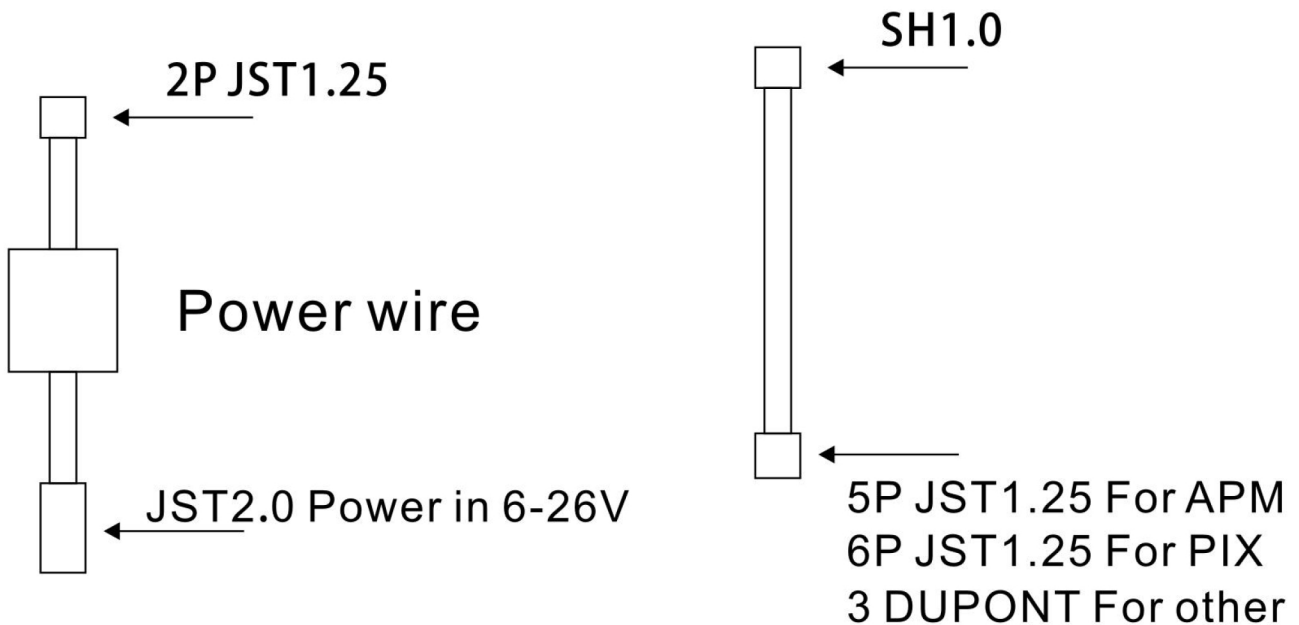
Right Side View



Back Side View



3: Wires



- 2x SMA interface 5DB Paddle type antenna
- 2x MMCX interface 5DB Circular tube antenna
- 1x Micro HDMI to Micro HDMI
- 1x APM flight control cable
- 1x PIX flight control cable
- 1x Other DIY DUPOND control cable
- 1x Gimbal PWM cable