

## J11 2.4GHz 10km HDMI Video and Dual Direction Data Transmission System

### Description

J11 is the mini HDMI wireless transmission COFDM system, supporting video and Duplex data transmission in the same link. Through the winning combination of self-developed CABAC( H.264+H.265 CODEC) technology and high-end transmission module of 2.4GHz, J11 features on ultra-high resolution(**1080P60**), and ultra-low latency(**15-30ms**). The whole system supports adjustable video resolution; data rate output coupled with Tplayer realizes the soft decoding with low latency. J11, of industrial grade, is ideal for the drone, UAV, UGV or other applications requiring UHD video image, ultra-low latency, and ultra-low power consumption.



### Features

- A compact, lightweight, robust package, Tx(88g), Rx(88g)
- Ultra-low latency 15-30ms
- Video input/output: HDMI and Ethernet
- Video and data( dual-direction) transmission in the same link
- Supporting SBUS/PPM/TTL/RS232/MAVLINK
- Compatible with different flight controllers(like Pixhawk) and remote controls(like FUTABA)
- Video sources self-adaptive(Max 1080P), supporting HDMI input and output
- 100Mbps Ethernet transmission, data rate output coupled with Tplayer software with low latency to display video in PC
- Point-to-point communication
- Amazing sensitivity by using an omnidirectional antenna

## Specification

|                             |   |
|-----------------------------|---|
| Weight                      | Tx/Rx 88g   |
| Dimension                   | Tx/Rx:76mm*48mm*20mm                                    |
| Wireless Transmission Range | Air to ground 10km-20km LOS(subject to the environment) |
| Latency                     | 15-30ms(1080P60/720P60 coding and decoding)             |
| Temperature Range           | Operating Temperature: -40°C-+85°C                      |
|                             | Storage Temperature: -55°C-+125°C                       |

|  |  |                                    |                    |
|--|--|------------------------------------|--------------------|
| Wireless Channel                           | 2.4GHz(2.400-2.482GHz)   |                                    |                    |
| RF Transmission Power                      | 1w   |                                    |                    |
| Overall Consumption Power                  | Transmitter Terminal: 8W   |                                    |                    |
|  | Decoder Terminal: 5w   |                                    |                    |
| Communication Bandwidth                    | 2/4/8MHz   |                                    |                    |
| Data Rates                                 | 1.5/3/6Mbps  |                                    |                    |
| RX Sensitivity                             | -97/-94/-90dbm   |                                    |                    |
| Video Color Space                          | Default:4:2:0 Optional:4:2:2/4:4:4                                     |                                    |                    |
| Antenna                                    | Transmitter  | Main Antenna: 19cm                 |                    |
|  | 2 MIMO Antennas<br>(omnidirectional)                                   | Slave Antenna: 19cm                |                    |
|  |  | Receiver                           | Main Antenna: 29cm |
|  | 2 MIMO Antennas<br>(omnidirectional)                                   | Slave Antenna: 20cm                |                    |
| Start-up Time                              | 25S  |                                    |                    |
| Re-connection Time                         | Less than 1s after the signal has been recovered                       |                                    |                    |
| Wireless Fault Tolerance                   | FEC/MPEG   |                                    |                    |
| TDMA Adjustment                            | Down QPSK/Up QPSK  |                                    |                    |
| Channel Encryption                         | WEP, WPA(PSK), WPA2(PSK), WPA+WPA2(PSK), AES                           |                                    |                    |
| Transmission Mode                          | Point-to-point   |                                    |                    |
| Two-Way Function                           | Supporting video and dual-direction data transmission in the same link |                                    |                    |
| Interface                                  | Power Input Interface  | DC-12V(7-18V)                      |                    |
|  | HDMI Interface   | 1080P60 HDMI Mini RX x1            |                    |
|  | SDI Interface  | Customized within 3 months         |                    |
|  | Ethernet Port  | Ethernet to USB/RJ45 on Windows x1 |                    |
|  |  | Ethernet to TTL supports TCP/UDP   |                    |
|  | Series Port<br>(S1 TTL)  | 3.3V electrical level              |                    |
| S1 expanding application, support SBUS/PPM |  |                                    |                    |

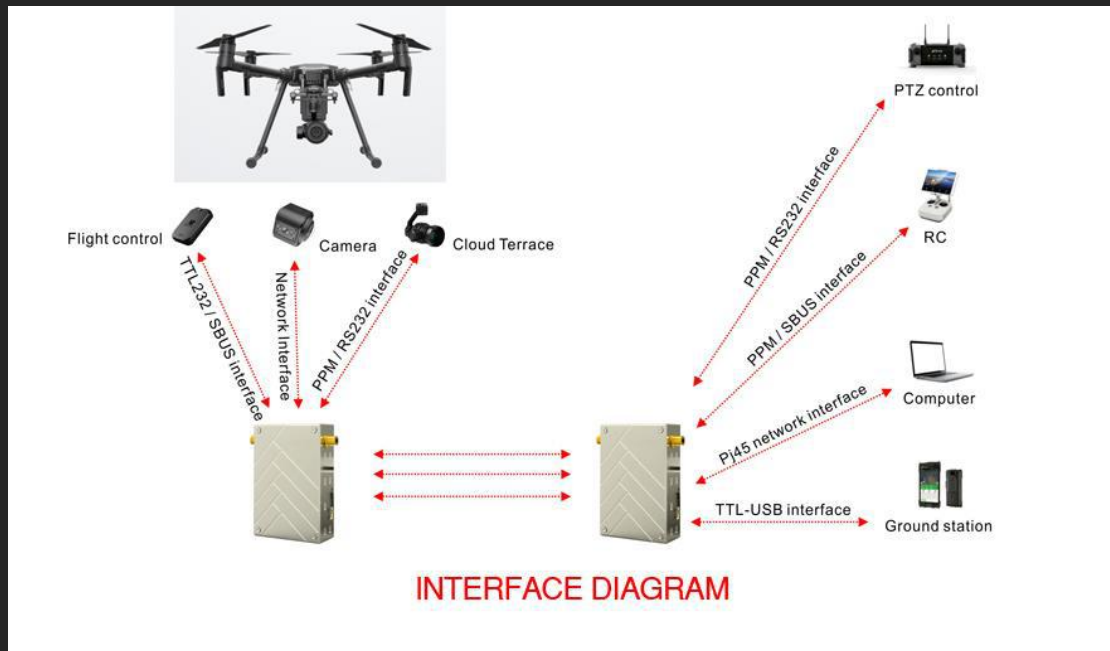
|                   |   |               |
|-------------------|---|---------------|
|                   | S2  | Two-way voice |
| Indicator         | Power indicator   |               |
|                   | Transmitting&receiving indicator                          |               |
| Appearance Design | CNC process/aluminum-alloy double-shell anti-storm design |               |

## Packing Details

- 1\* Transmitter
- 1\* Receiver
- 4\* Feed Line(2pcs for each length 0.5m, 2m)
- 4\* MIMO Antenna
- 2\* HDMI Cable(Soft wire used in airborne terminal, spring wire used in receiving terminal)
- 4\* Standard TTL serial port line(including 2pcs USB)
- 2\* T33 module
- 3\* Ethernet Cable(with 2\*Lan card)
- 1\* Secret Key
- 4\* Power Cable



## Interference Diagram



## Application

- Disaster relief, forest-fire prevention, emergency rescue by UAV, emergency communication, live streaming, rebroadcast
- Aerial scouting, monitoring by helicopter, airship, especially for the environment unsuitable or unable for wiring
- Image transmission for public security system, firefighting command truck, etc
- Real-time surveillance at sea in frontier areas
- Real-time news gathering and match broadcasting in wireless mobile trucks

