

FPS-8408 User Manual



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Version 1.0

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1. Package List



FPM-8416 Tx & Rx



Ethernet Cabel*3



Antenna Cable*6



Tx HDMI Cable*1



Rx HDMI Cable*1



TTL-USB Cable*4



Power Cable*4



Tx Antenna*2

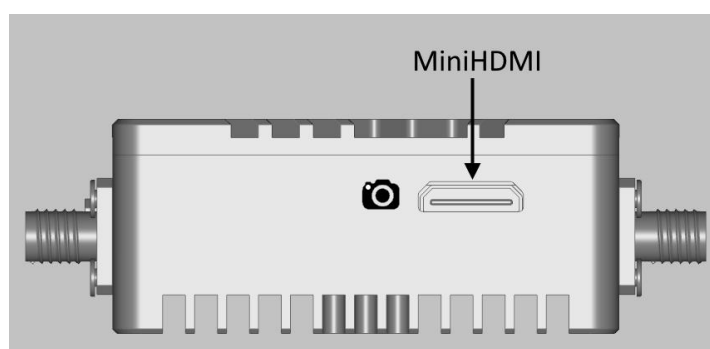


Rx Antenna*2

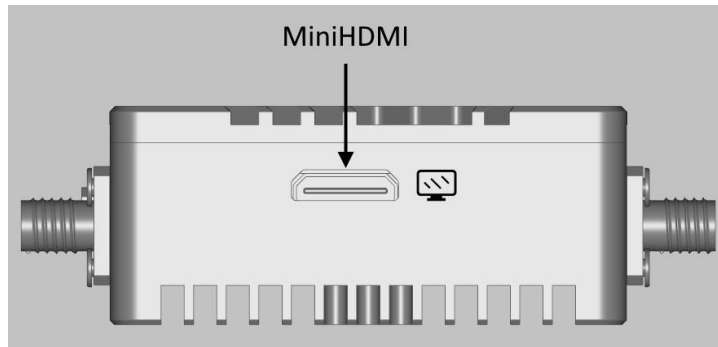
2. Connectors and LED

Front Side

Tx Unit

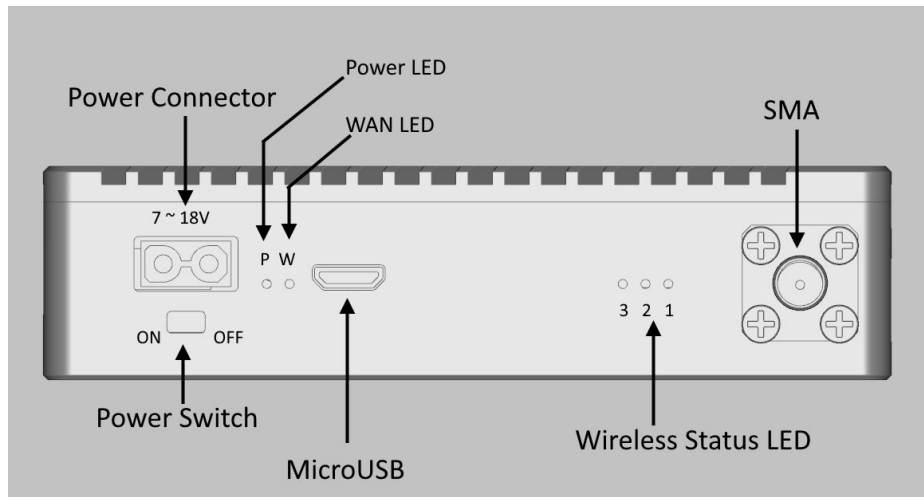


Rx Unit



✧ The Mlini HDMI ports is to connect with camera(Tx Unit) or display(Rx Unit)

Right Side



- 1*2P Power connector (Model XT30PW). The voltage range is 7~18V
- 1*Power switch
- 1*Power LED: it will be bright when power is on
- 1*WAN LED: It will be flashing when the video stream is normally transmitted/received
- 3*wireless status LEDs.

LED1: It will be on when Tx and Rx are both powered and the wireless communication has been established successfully between them

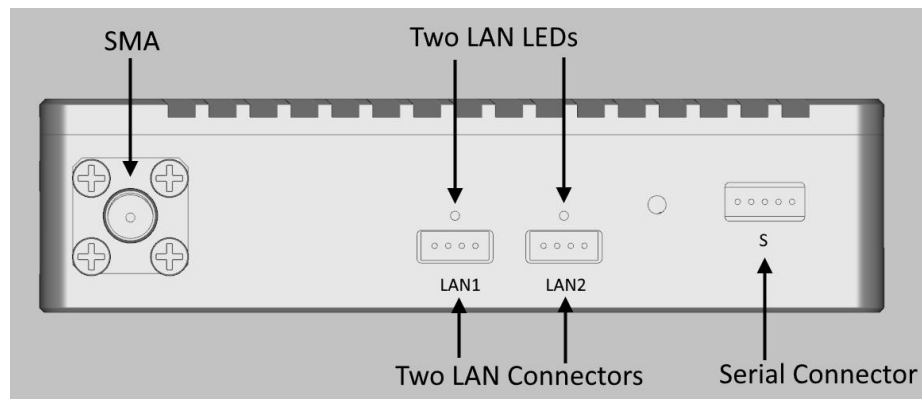
LED2 and LED3 are reserved for production testing

- 1*SMA connector: It is to connect an antenna

Note: the antenna should be connected before powering on

- 1*MicroUSB: It's reserved for production testing

Left Side



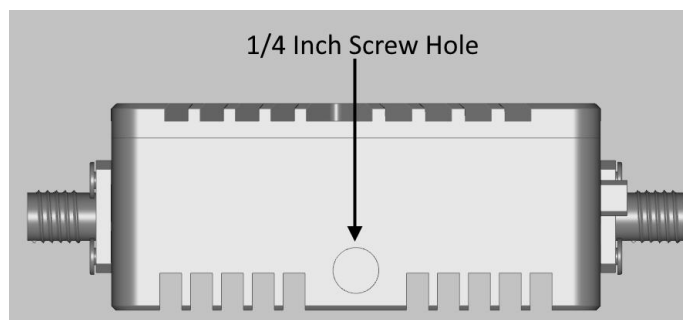
- 1*5P serial connector: It is to connect the TTL-serial cable for transmitting serial signal(voltage is 3.3V).
- 1*SMA connector for connecting with antenna.

Note: the antenna should be connected before powering on

- 2*LAN connectors
- 2*LAN LEDs.

--ON: The LAN connector is connected successfully with external device via a LAN cable
 --Flashing: Data is transmitting via the LAN

Rear Side



- 1*standard 1/4"-20 screw hole for installing/mounting the unit on tripod, platform, etc.

3. Settings & Installation

3.1. Setting up steps of HDMI Video transmitting

- ① Connect two antennas to Tx unit by antenna-cables
- ② Connect two antennas to Rx unit by antenna-cables
- ③ Connect a HDMI Camera to Tx by HDMI cable, And connect a monitor to Rx by HDMI cable.
- ④ Connect power to both units by power cables
- ⑤ Power on all the devices
- ⑥ After 10~20 seconds, LED1 on both units should be on if wireless connection has been established successfully
- ⑦ After a few seconds, the video will be displayed on the monitor
- ⑧ If Tx and Rx are connected with other serial data devices, The their voltage/data format need to be configured according to the following **4.3 Serial Data Format**.

3.2. Play Video on Windows PC by TPlayer

- Install TPlayer on a Windows PC (Windows 7 or Windows 10)
- Plug the TPlayer USB dongle on the Windows PC
- Connect the Windows PC to LAN1 or LAN2 port of receiver unit by Ethernet Cable
- When HDMI video is playing successfully on the monitor connected to receiver unit, run the TPlayer and then select the adapter connecting the receiver and click "Play" button



- A video playback window will pop out and begin to play the video

3.3. Network Settings

FPS-8408 units are working as wireless bridges. IP Address of FPS-8408 units

Tx	Rx
192.168.1.2	192.168.1.3

FPS-8408 default IP address:

Tx	Rx
192.168.1.2	192.168.1.3

IP configuration of devices connecting to FPS-8408

IP Address	192.168.1.X (X can't be 1, 2, 3 and 255)
mask	255.255.255.0

3.4. Setting up steps of Network Communication

- ⑨ Connect two antennas to Tx unit by antenna-cables
- ⑩ Connect two antennas to Rx unit by antenna-cables
- ⑪ Configure the IP/gateway/mask of devices connected to both units according by 3.1
- ⑫ Connect network devices to **LAN** ports of Tx/Rx unit
- ⑬ Connect power to both units by power cables
- ⑭ Power on all the devices
- ⑮ After 10~20 seconds, LED1 on both units should be on if wireless connection has been established successfully
- ⑯ After a few seconds, the Tx can communicate with Rx
- ⑰ If Tx and Rx are connected with other serial data devices, The their voltage/data format need to be configured according to the following **4.3 Serial Data Format**.

Note: FPS-8408 supports HDMI video transmitting and network communication simultaneously. While when HDMI video is transmitting over wireless channel, there is only 100kbps throughput left in the channel for LAN1+LAN2.

4. Details of Cables

4.1. TTL Cable

TTL Serial cable is for transmitting 3.3V TTL signals. One Connector is 5P JST eGH, the pin number is shown as right. It shows the connector side with metal exposed.



(note: Wire's color is irrelevant)

Pin	Signal
1	TXD
2	RXD
3	3.3V output, max 500mA (power external device if necessary)
4	GND
5	Reserved

Another end is consist of 3 Dupont plugs with different color

Color	Signal
Red	TXD
Yellow	RXD
Black	GND



4.2. Ethernet Cable

One header is standard RJ45 and another header is 4P JST eZH header



4.3. Serial data format

Default Baud Rate	115200
Data Bits	8
Parity	No
Stop bit	1
Voltage	3.3V

5. Notices

- ✧ Before powering on, make sure both SMA have been connected to antennas. Because Powering on a unit without antenna as load, the PAs inside will be damaged
- ✧ Two antennas of one unit should keep certain distance. We commend 2 meters or longer for Rx side. If two antennas don't keep proper distance, the wireless signal may become weak and the transmission range may become shorter
- ✧ Please not dismantle or modify FPS-8408 units. Any problem you meet, please contact our sales person or email to support@iwavecomms.com