

FMS-8480 User Manual











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Version 2.0*

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1.Package List

Transmitter*1	Receiver*1
	
Transmitter Antennas*2(5db/35cm length)	
	
Receiver Antenna*2(14db/90° directional ant)	
	
Antenna Cable*4	
	
HDMI Cable*2	
	
BNC-SMA*2	
	
Power Cable*4	
	

Ethernet Cable*4

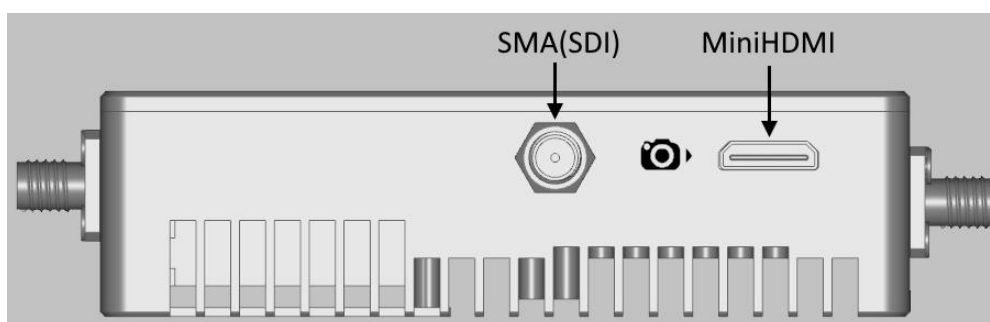
TTL Serial Data Cable*2

TTL-USB Cable*2

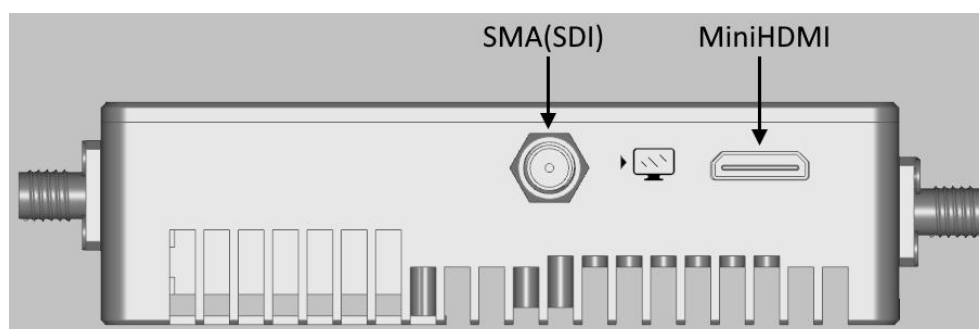

2.Interface

Interface on Tx and Rx are same

(Tx)



(Rx)

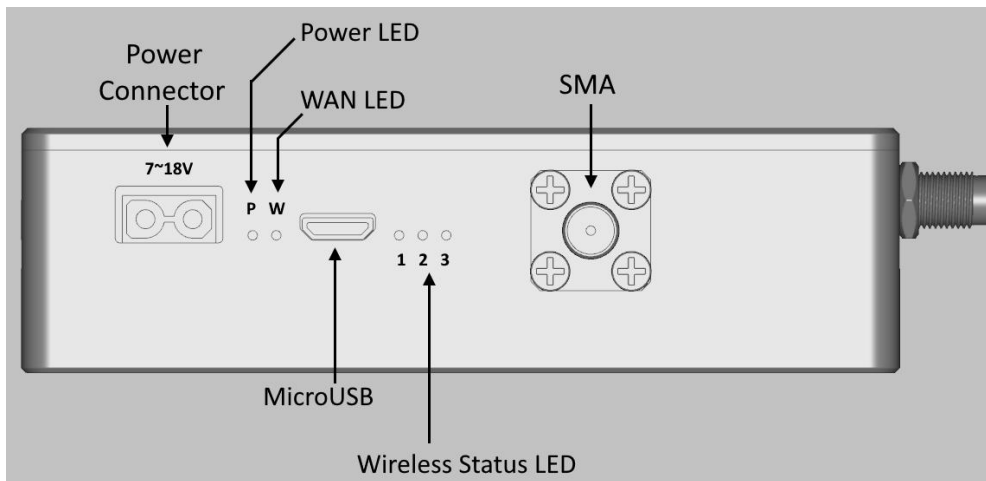


Note: Camera logo  for TX unit. Monitor logo  for RX unit

- TX Unit automatic identifies video type. If SDI video input, Tx unit will encode and transmit SDI video. If HDMI video input, it will encode and transmit HDMI video.

Note: If Both are connected and active, it will encode and transmit SDI video

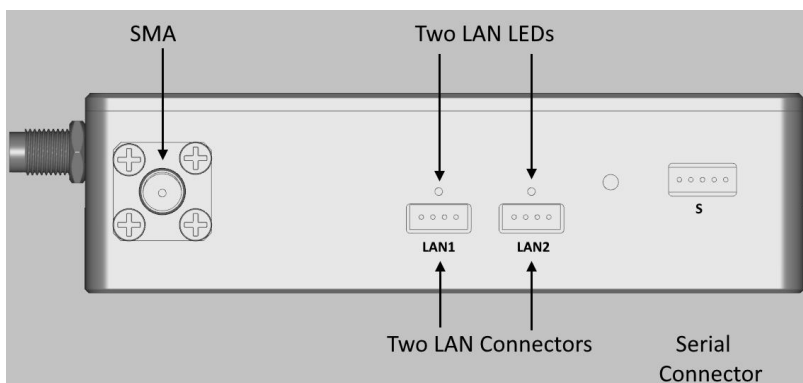
- RX Unit outputs both SDI and HDMI video simultaneously. Two monitors can be connected. The SDI and HDMI monitor will display the video at same time.



- The voltage input voltage is 7~18V
- Power LED will be bright when power on
- WAN LED will be flashing when the video is transmitting/receiving
- Wireless status LEDs. LED1 will be bright when the wireless communication link between Tx and Rx has been established successfully.
- LED2 and LED3 are reserved for production testing
- SMA is to connect antenna

Note: Both the antennas should be in good connection before power on

- MicroUSB: Reserved for production testing



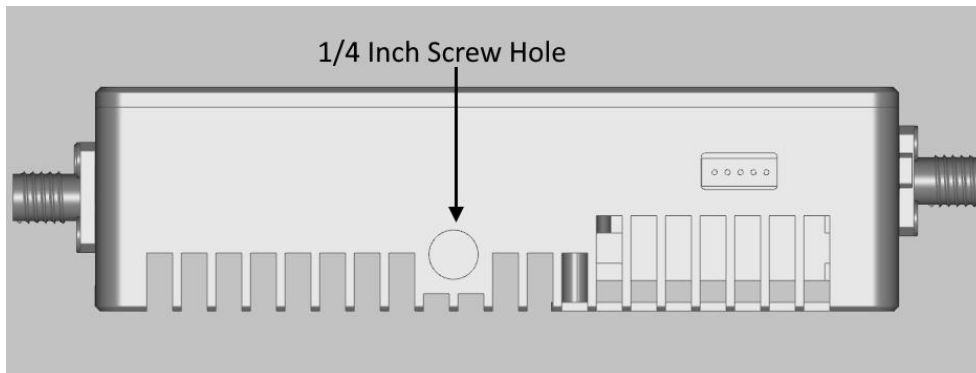
- Serial connector: Connect the TTL-serial cable to transmit serial signal, voltage is 3.3V.
- SMA connector: Connect antenna.

Note: Both the antennas should be in good connection before power on

- LAN Connectors
- LAN LED

--Bright: The LAN connector is connected successfully to external device via a LAN cable

--Flashing: Data is transmitting via the LAN connector



- 1/4"-20 screw hole for installing/mounting the unit on UAV.

3.Installation Setps

1. Connect both Antennas on Tx and Rx
2. Connect Tx with SDI or HDMI Camera
3. Conenct Rx with a monitor
4. Power on all the devices
5. After 10-20s, LED1 will be bright, which means the wireless link between Tx and Rx has been established successfully
6. After a few senconds the monitor will display the camera's video
7. When use the serial port, please refer the following information of the the voltage and data format



(note: Wire color is irrelevant)

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

Another header consists of 3 Dupont plugs with different color wire:



Color	Signal
Red	TXD
Yellow	RXD
Black	GND

Serial Data Format

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

4.Play Video on Windows PC by TPlayer



- Install TPlayer on a Windows PC (Windows 7 or Windows 10)
- Connect the Windows PC to LAN1 or LAN2 port of receiver unit by one Ethernet Cable
- When HDMI video/SDI Video is playing successfully on the monitor, run the TPlayer then select the adapter connecting and click “Play” button



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

5. Steps of Network Configurations

FMS-8480 units are working as wireless bridge. Tx and Rx are in the same IP subnet 192.168.1 netmask is 255.255.255.0

IP Address of FMS-8480 as follows:

Tx	Rx
192.168.1.1	192.168.1.2

All external devices/PC connecting to LAN ports of FMS-8480 should be in the same IP subnet 192.168.1 with netmask 255.255.255.0

Steps of Network Configuration

1. Connect both Antennas on Tx and Rx
2. Configure the IP/gateway/mask of devices connected with Tx and Rx units
3. Connect network devices to LAN ports of Tx/Rx unit
4. Power on all the devices
5. After 10~20 seconds, LED1 will be bright, which means the wireless link between Tx and Rx has been established successfully

Note: FMS-8480 supports HDMI/SDI video transmitting and network communication simultaneously. While when HDMI/SDI video is transmitting over wireless channel, there is only 100kbps throughput left in the channel for LAN1+LAN2.

6. Notice

- Before powering on, make sure both SMA has connected to antennas. 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 1 meter for Tx side, 2 meters for Rx side. If two antennas don't keep proper distance, the wireless signal may become weaker and the communication distance will be short.