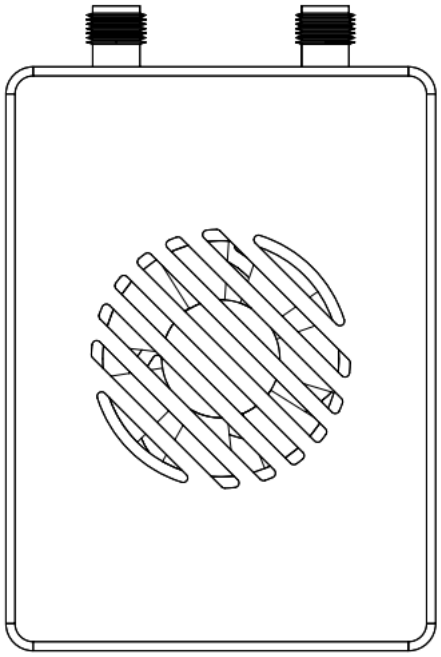
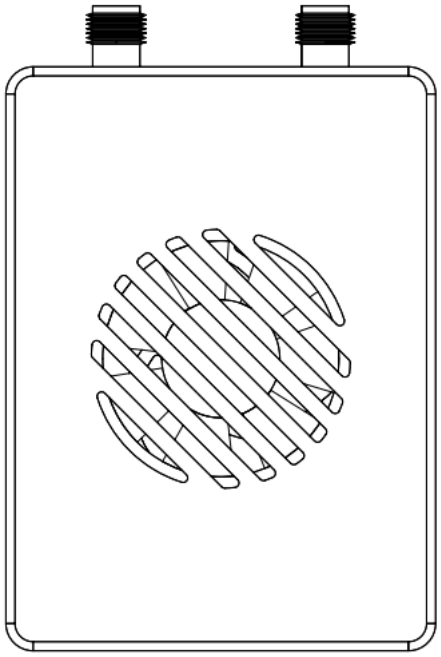
Viulinx Dual-band
Quick Start

Contents

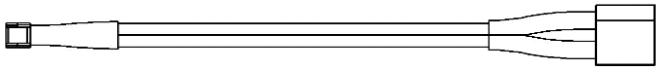
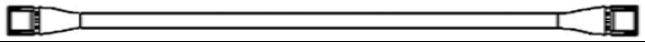
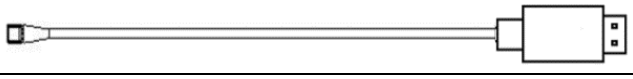
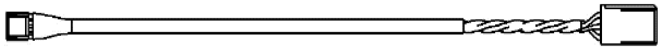
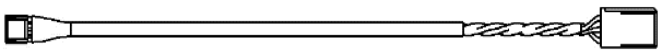
1. Package Contents

Air unit & Ground Unit



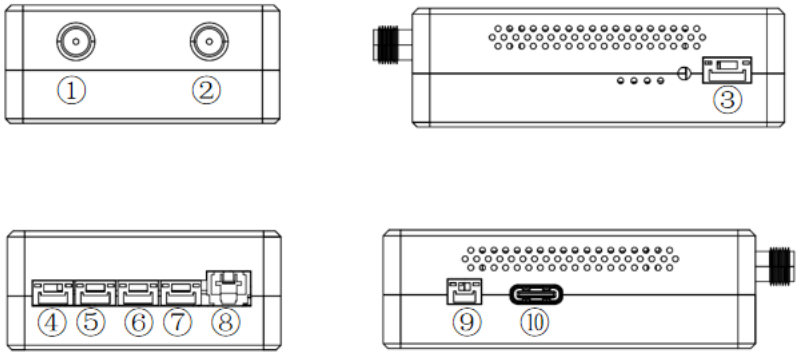


Accessories

Air antenna x 2	
Ground antenna x 2	
Power cable x2	
Serial cable (Air Unit) x 2	
Serial cable (Ground Unit) x 2	
RC cable (Air Unit) x 2	
RC cable (Ground Unit) x 2	
RJ45 cable x 2	

2. Introduction

2.1. Air Unit Ports



① RF port for antenna.

② RF port for antenna.

③ Ethernet video input from a camera, web-page management interface. Pinouts of the Ethernet port is R- R+ T- T+ seen from left to right in above figure.

④ Serial port for telemetry, ttl(voltage level 3.3V) or RS232. Pinouts of the serial port is Tx Rx GND seen from left to right in above figure.

⑤ Serial port for telemetry, ttl(voltage level 3.3V) or RS232. Pinouts of the serial port is Tx Rx GND seen from left to right in above figure.

⑥ S.Bus port connected to a flight controller. Pinouts of the S.Bus port is 5V GND S.BUS seen from left to right in above figure.

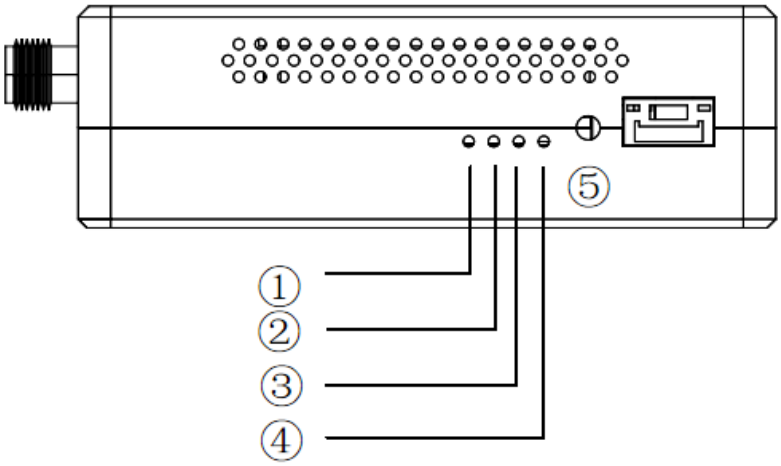
⑦ S.Bus port connected to a flight controller. Pinouts of the S.Bus port is 5V GND S.Bus seen from left to right in above figure.

⑧ Power input (DC12V ~ 26V). Pinouts of the power port is GND PWR seen from left to right in above figure.

⑨ PPM port connected to a flight controller. Pinouts of the PPM port is GND PPM seen from left to right in above figure.

⑩ Type-C USB port.

2.2. Air Unit LEDs & Button



① It's off when radio link connected.

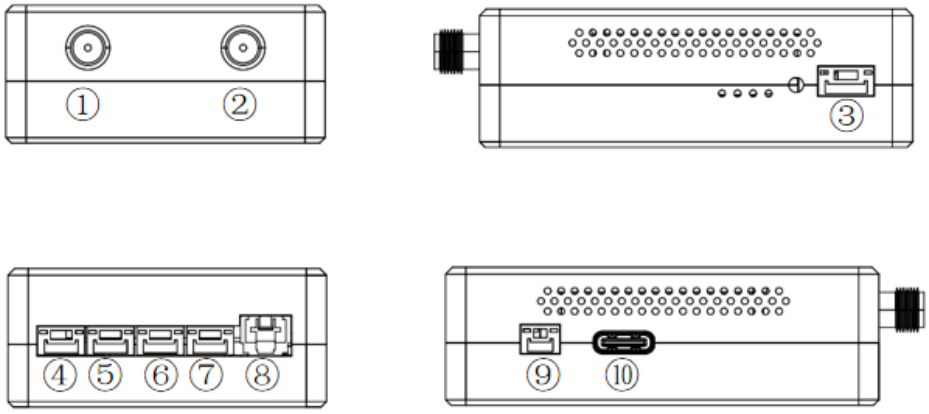
② It's off when radio link connected.

③ Solid on in orange: 100Mbps Ethernet physical link connected.

④ Flickering in green: when there's data transmission.

⑤ Bind button: press-and-hold till LED1&LED2 are flashing, it's bound already before factory delivery.

2.3. Ground Unit Ports



① RF port for antenna.

② RF port for antenna.

③ Ethernet video output to PC, web-page management interface. Pinouts of the Ethernet port is R- R+ T- T+ seen from left to right in above figure.

④ Serial port for telemetry, ttl(voltage level 3.3V) or RS232. Pinouts of the serial port is Tx Rx

GND seen from left to right in above figure.

⑤ Serial port for telemetry, ttl(voltage level 3.3V) or RS232. Pinouts of the serial port is Tx Rx GND seen from left to right in above figure.

⑥ S.Bus port connected to a S.Bus receiver. Pinouts of the S.Bus port is 5V GND S.Bus seen from left to right in above figure.

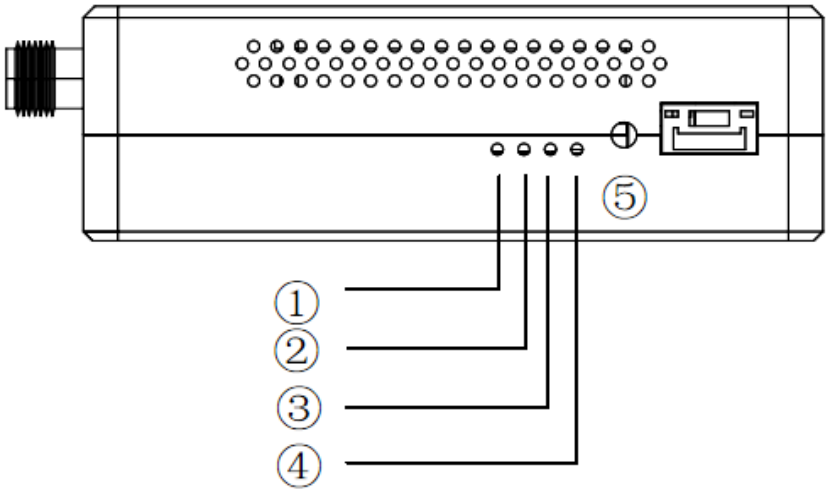
⑦ S.Bus port connected to a S.Bus receiver. Pinouts of the S.Bus port is 5V GND S.Bus seen from left to right in above figure.

⑧ Power input (DC12V ~ 26V). Pinouts of the power port is GND PWR seen from left to right in above figure.

⑨ PPM port connected to a remote controller. Pinouts of the PPM port is GND PPM seen from left to right in above figure.

⑩ Type-C USB port.

2.4. Ground Unit LEDs & Button



① Solid on in green: Air-to-Ground link connected.

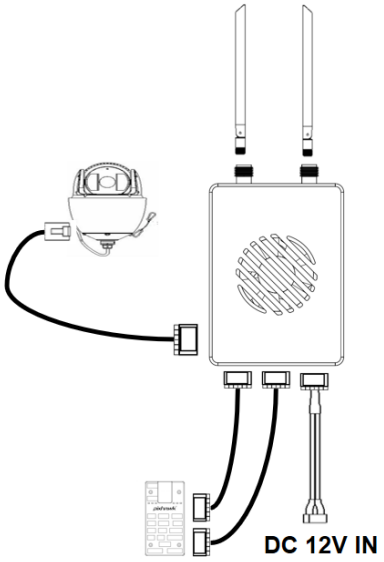
② Solid on in orange: Ground-to-Air link connected.

③ Solid on in orange: 100Mbps Ethernet physical link connected.

④ Flickering in green: when there's data transmission.

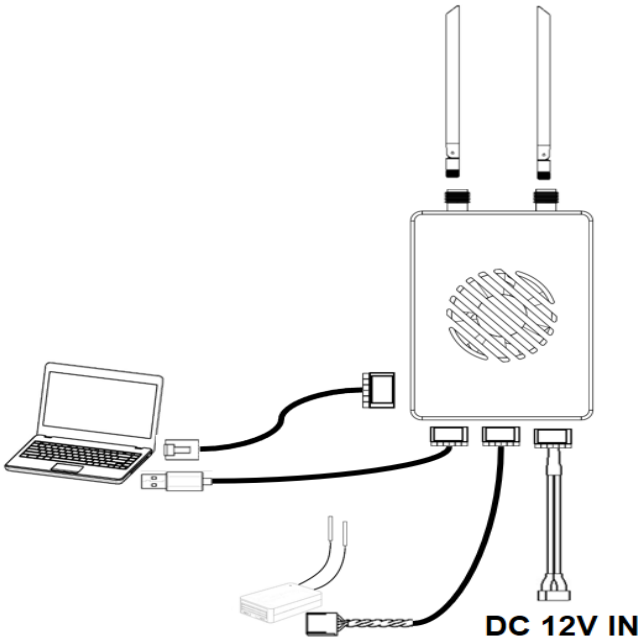
⑤ Bind button: press-and-hold till LED1&LED2 are flashing, it's bound already before factory delivery.

2.5. Setting up Air Unit



1. Connect antennas to RF ports of the air unit.
2. Connect camera to Ethernet port of the air unit.
3. Connect the PPM/S.bus port of the flight controller to the RC port of the air unit.
4. Connect the flight controller telemetry port to the serial port of the air unit.
5. Connect a 12V DC power to the power port of the air unit and turn on the power.

2.6. Setting up Ground Unit



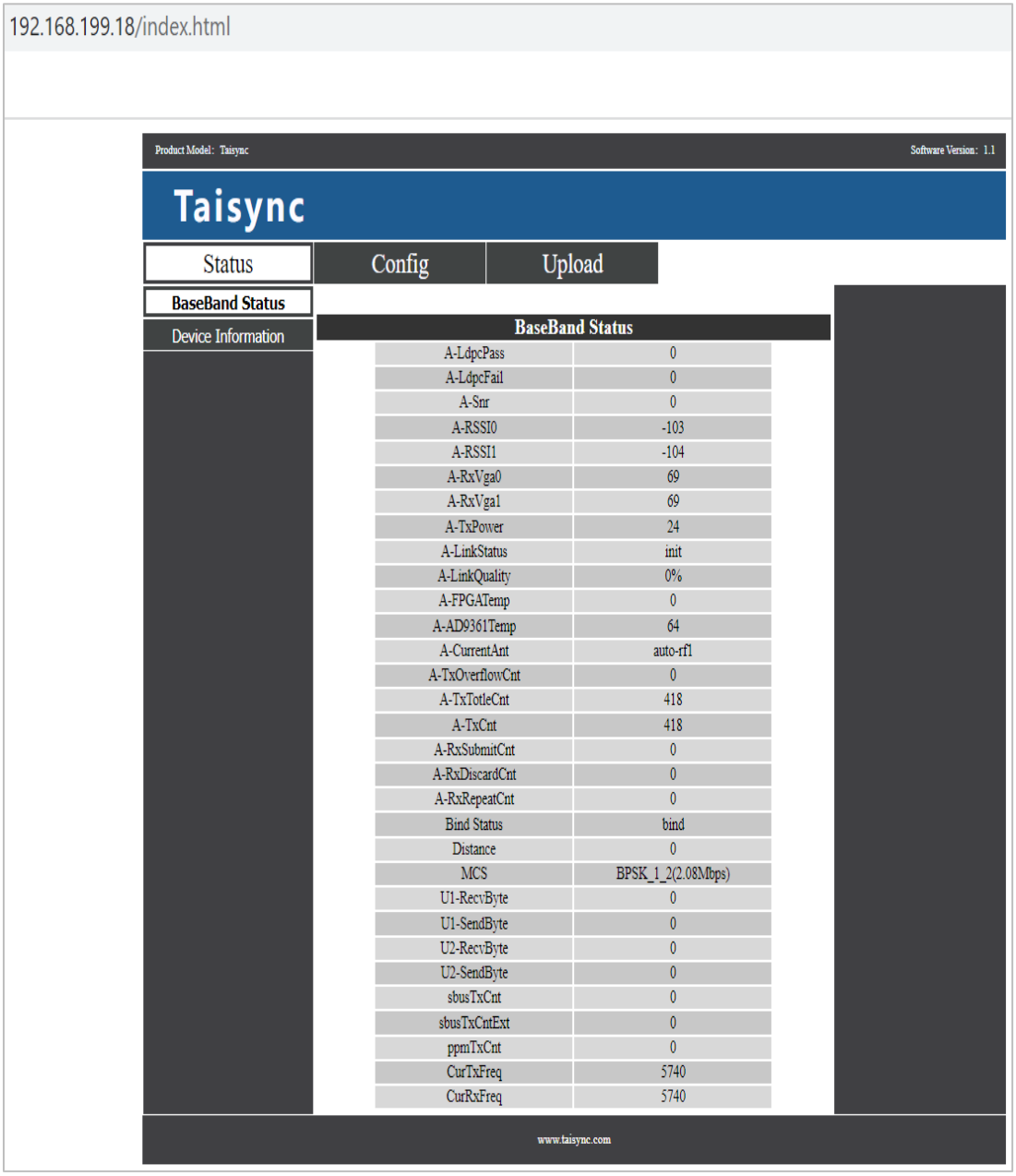
1. Connect antennas to RF ports of the ground unit.
2. Connect the remote controller's PPM/S.bus output to the RC port of the ground unit.
3. Connect the USB port of GCS/PC to the serial port of the ground unit with Serial-USB cable.
4. Connect Ethernet output port of ground unit to the GCS/PC.
5. Connect a 12V DC power to the power port of the ground unit.

3. Web-page Management

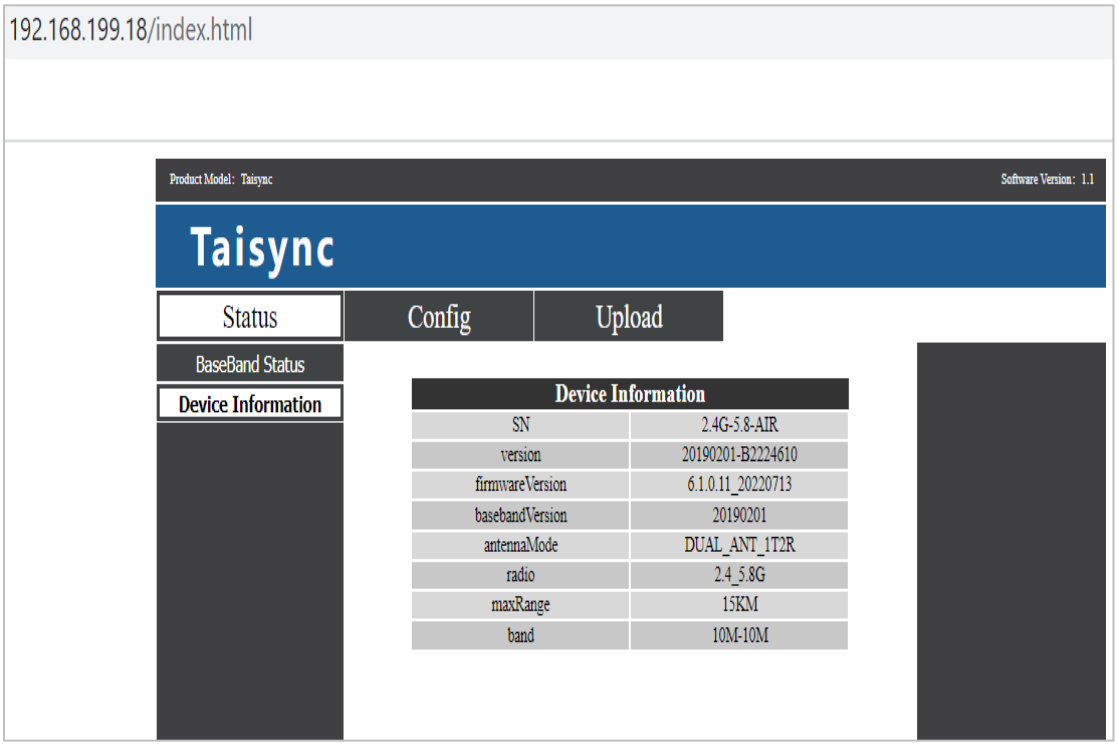
ViulinxPro Dual-band has web-page management interface. Directly connect PC to air unit/ground unit by Ethernet cable, set PC IP address as 192.168.199.33/24, and visit 192.168.199.18 (air unit)/192.168.199.16 (ground unit) through web-page.

3.1. Manage Air Unit

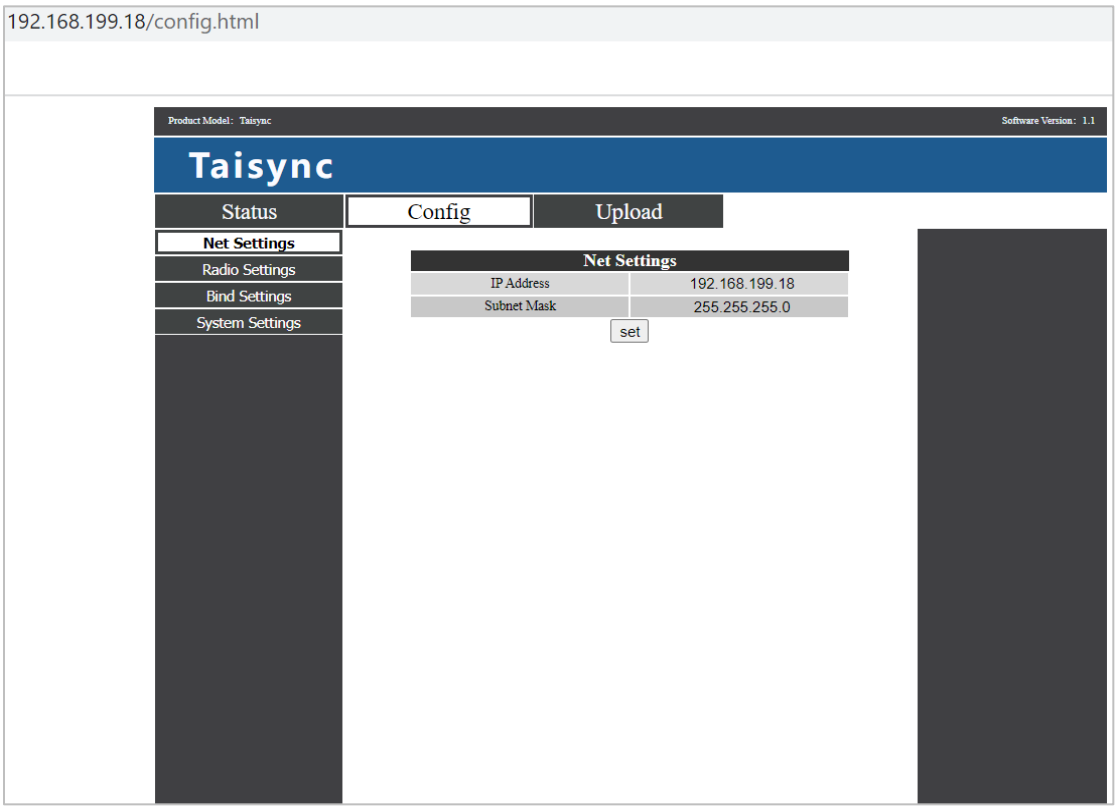
Status→Baseband status, there's detailed real-time information like RSSI, SNR, Tx Power, LDPC stats, telemetry stats, etc.



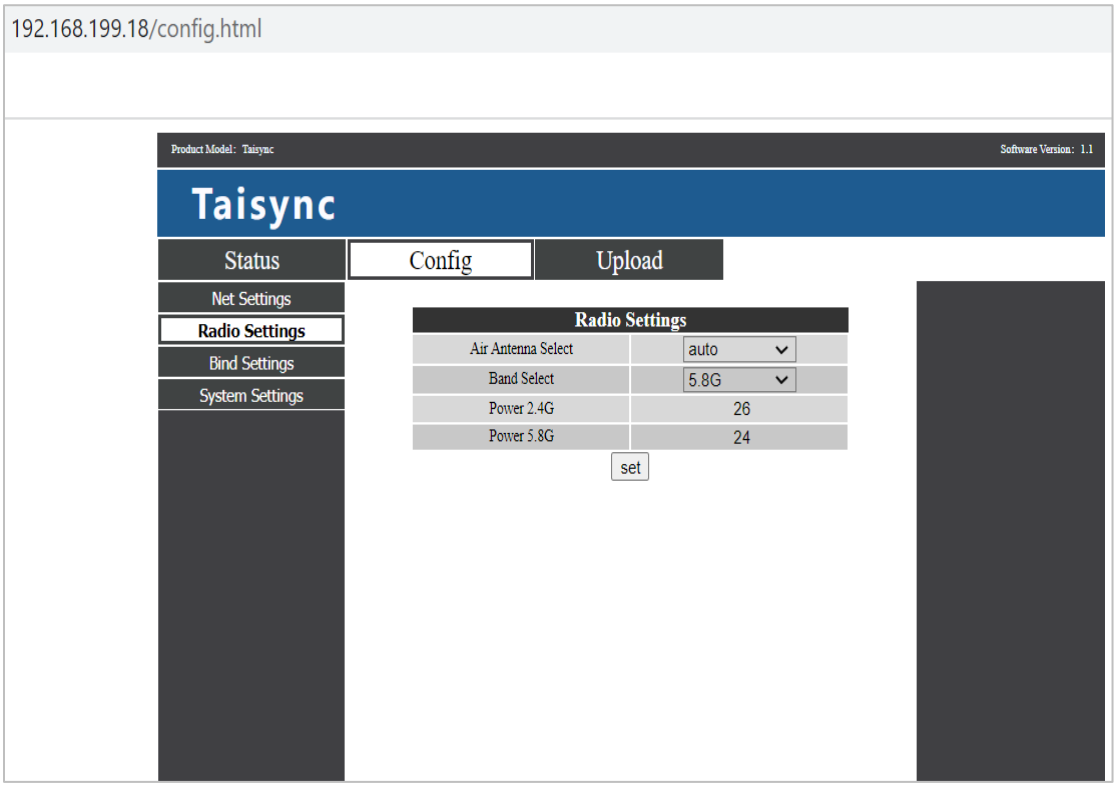
Status→Device information, there's information of SN and firmware version, etc.



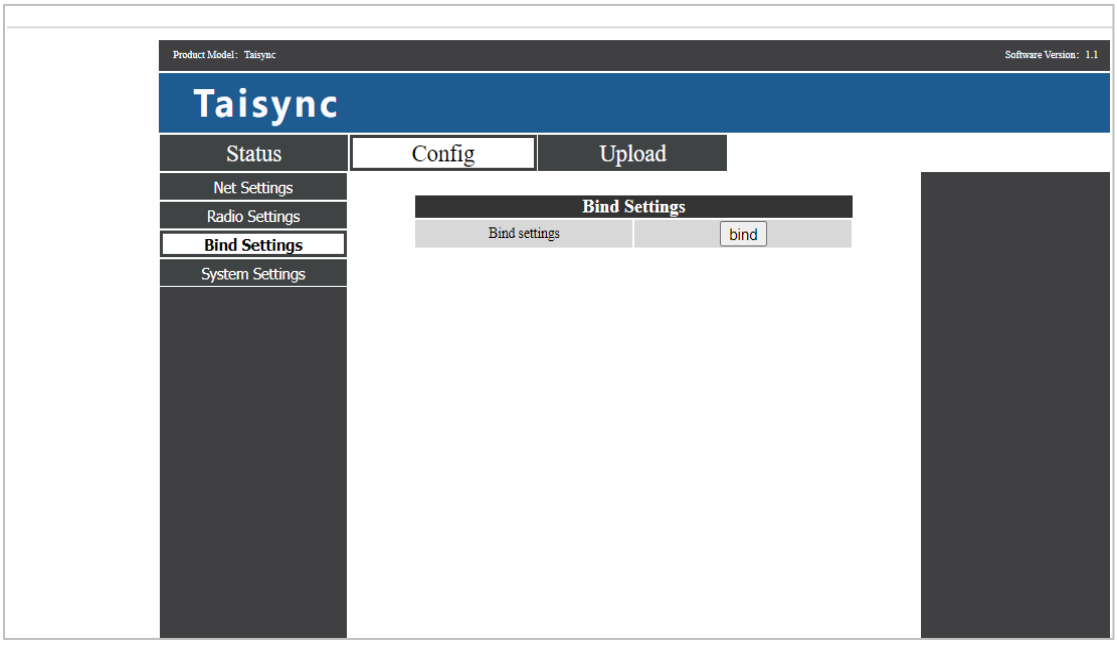
Config→Net settings, this is IP address of unit itself, it can be changed as per user's request.



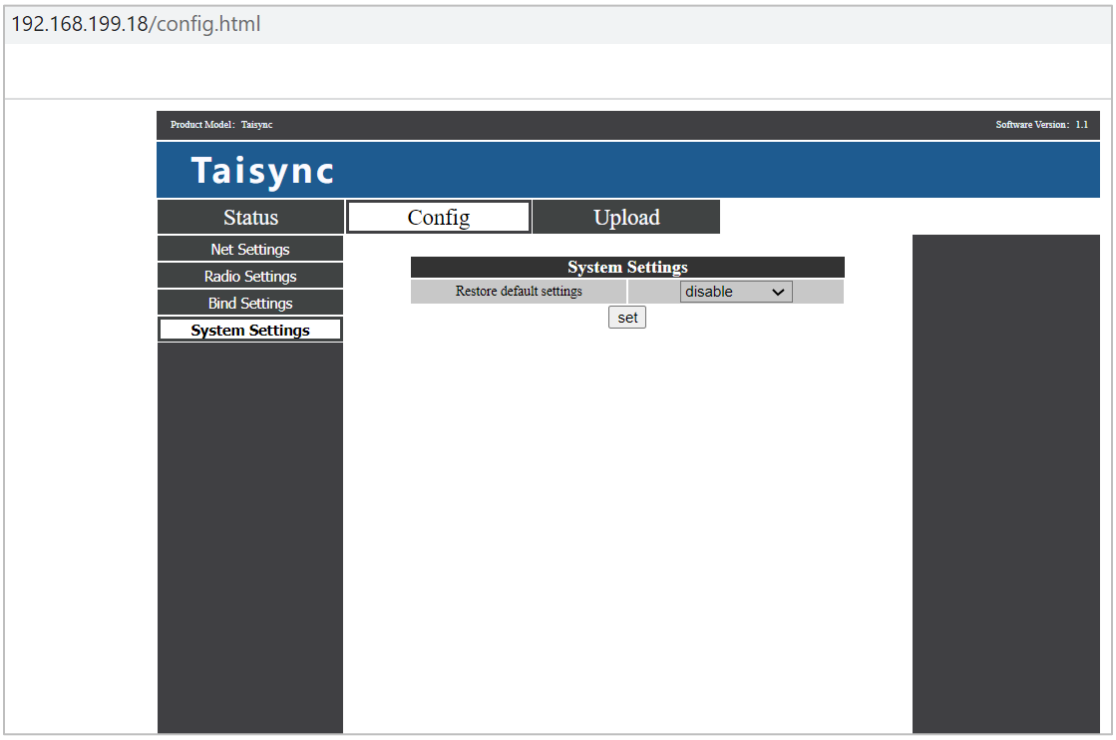
Config→Radio settings, there are options of auto/antenna1/antenna2 for air antenna select, and options of 2.4G/5.8G/2.4G&5.8G for band select, band select must keep the same as ground unit. Transmitting power can be set for 2.4G/5.8G independently as per user request.



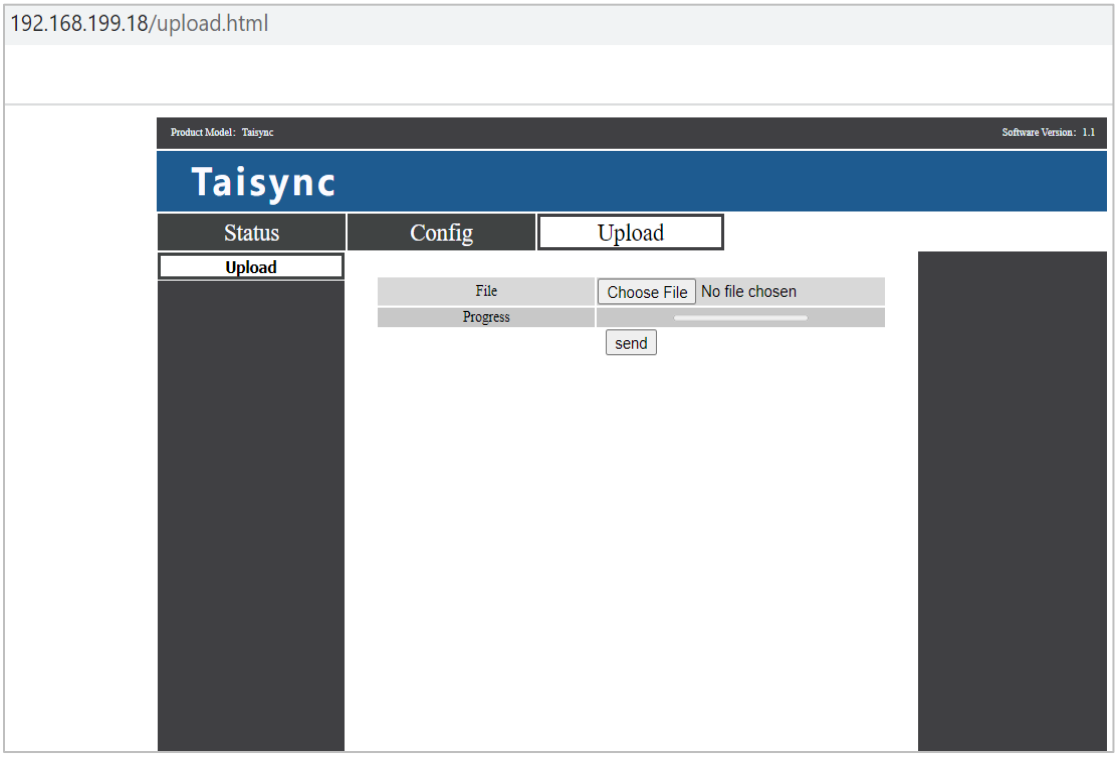
Config→Bind setting, bind process can be triggered by clicking bind instead of physical bind button.



Config→System settings, Restore unit to factory settings by “enable”.

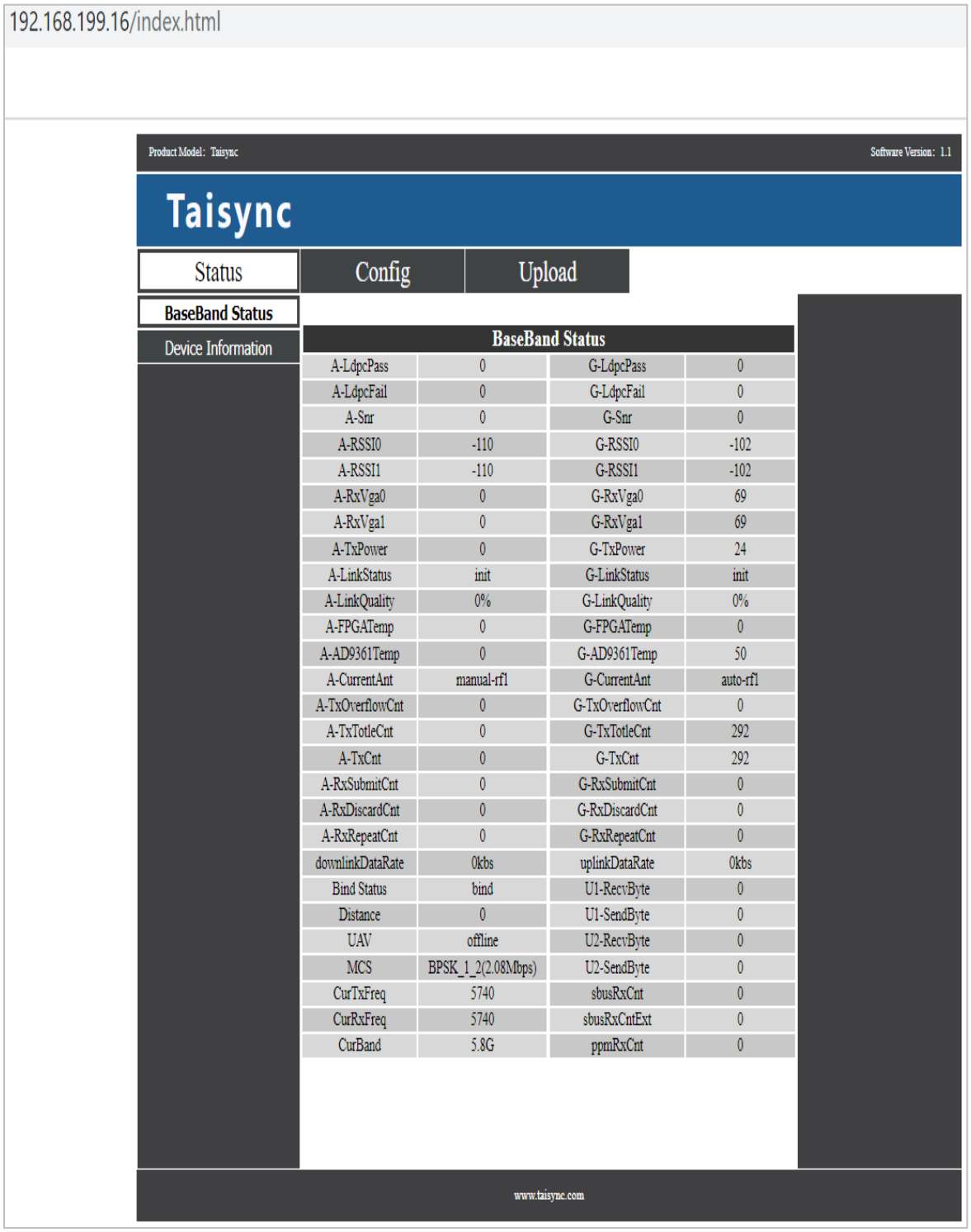


Upload→Upload, browser and select file to be upgraded first, then click “send” to trigger the process.

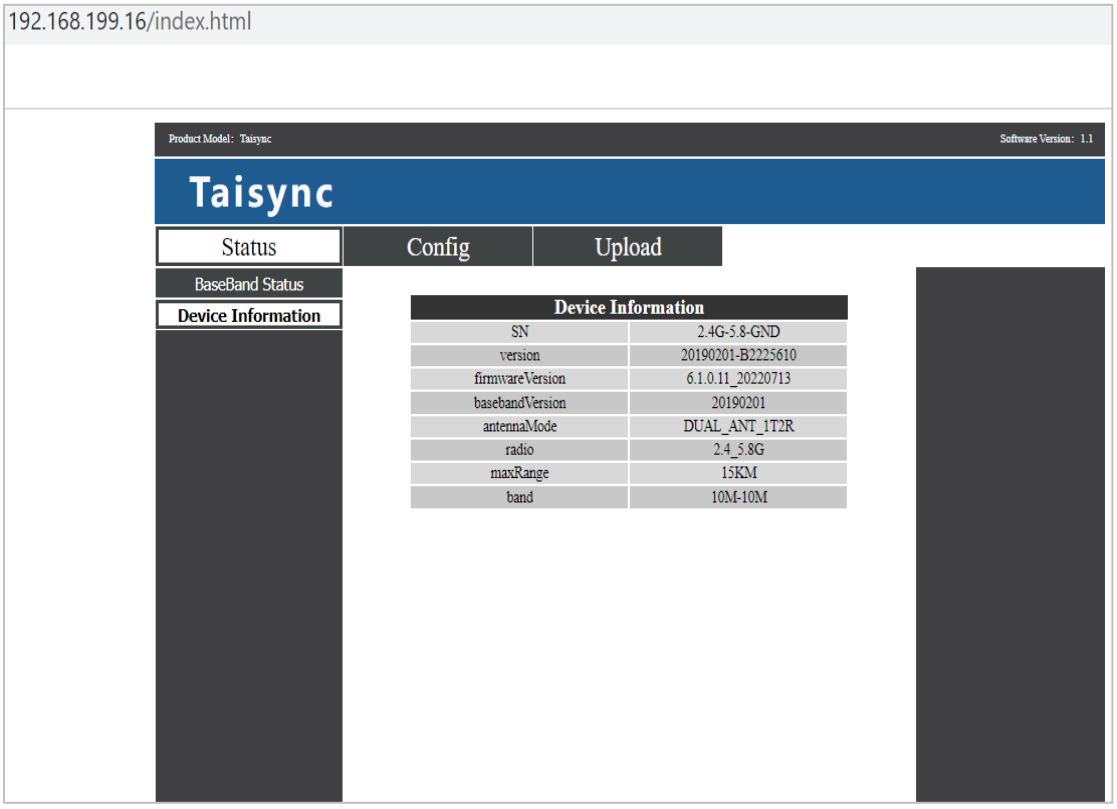


3.2. Manage Ground Unit

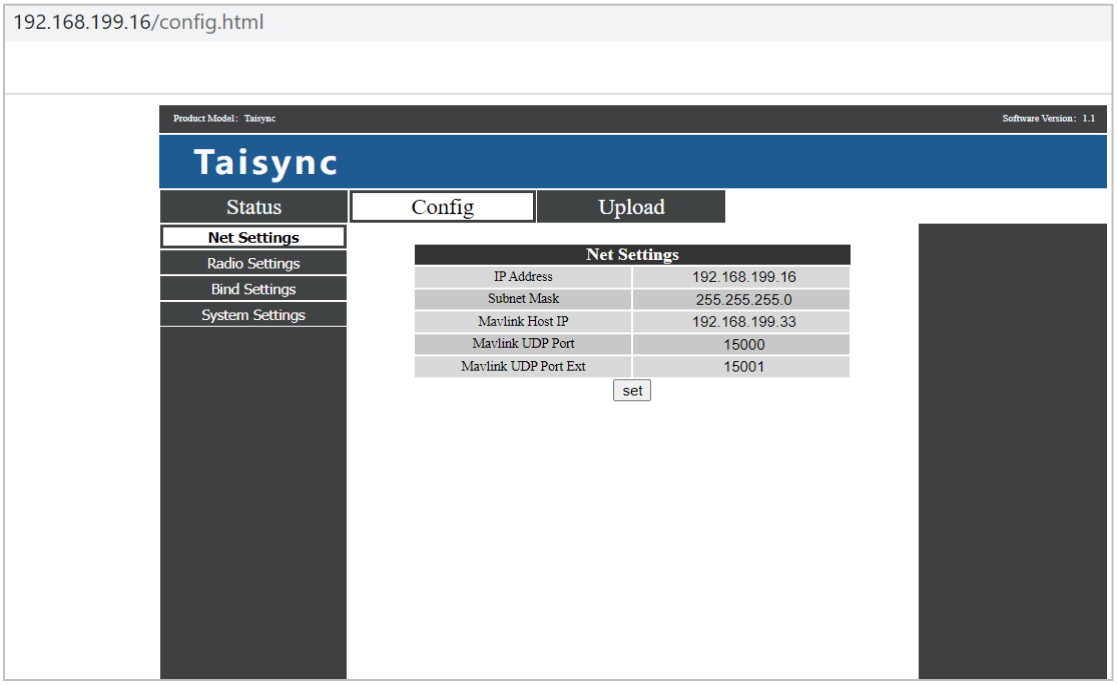
Status→Baseband status, there’s detailed information like RSSI, SNR, TxPower, LDPC stats, telemetry stats, etc.



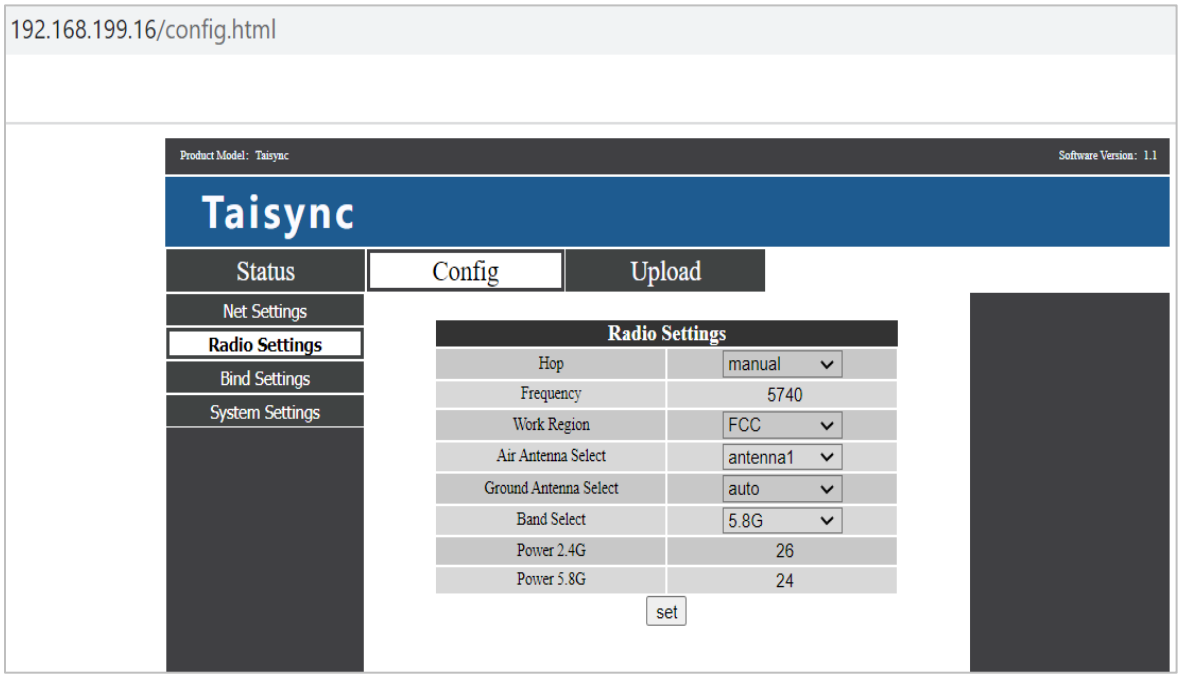
Status→Device information, there’s information of SN and firmware version, etc.



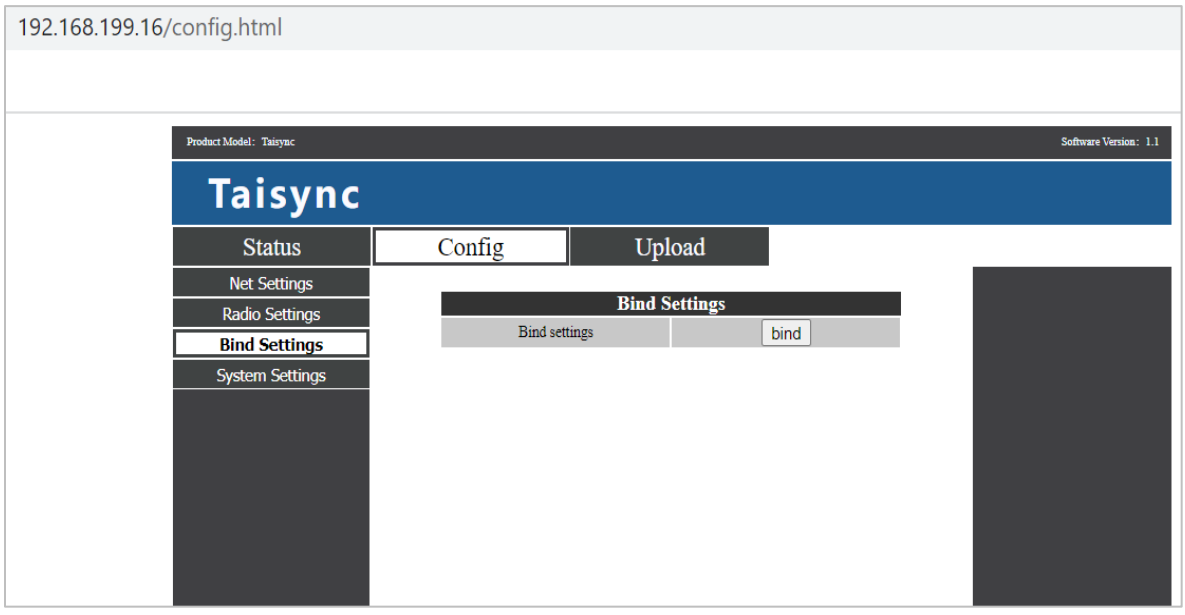
Config→Net settings, there are IP address of unit itself, telemetry destination IP address and UDP ports, all of these parameters can be changed as per user request.



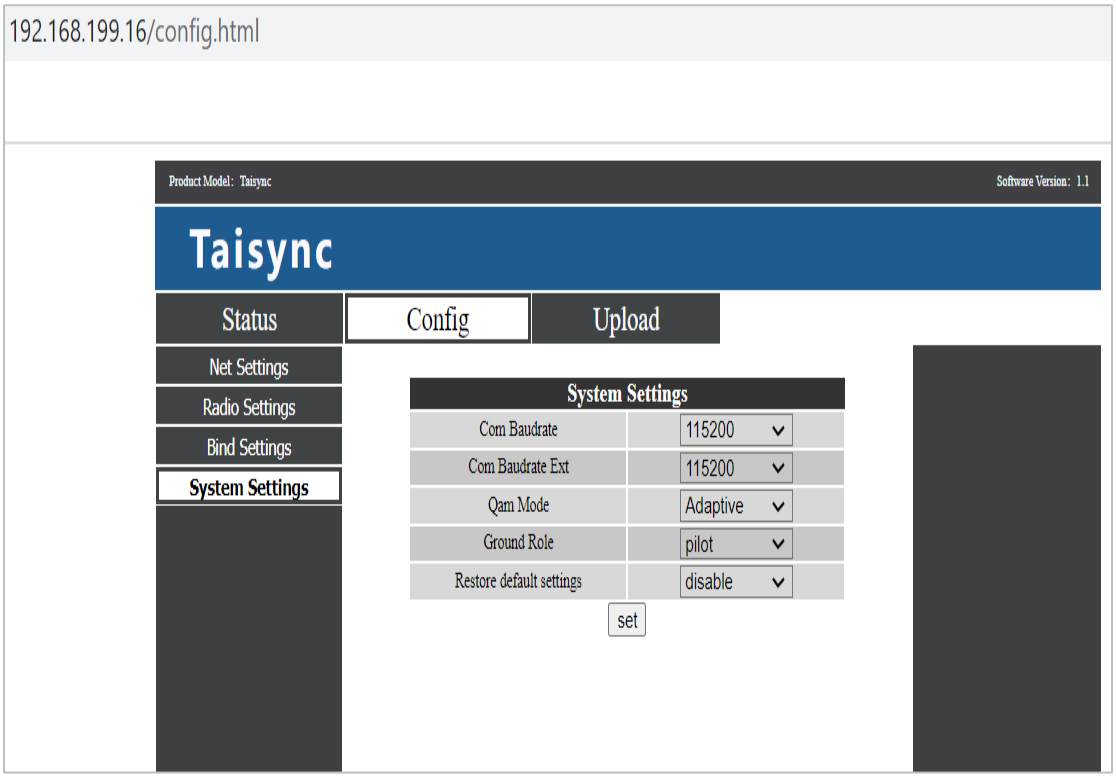
Config→Radio settings, there are hop, frequency, antenna selection, band selection and transmitting power can be set. When hop is auto, user do not need to/cannot set frequency, system dynamically selects the best frequency to use by itself, in other words, when hop is manual, user can set frequency manually. There are options of auto/antenna1/antenna2 for air/ground antenna select, and options of 2.4G/5.8G/2.4G&5.8G for band select, band select must keep the same as air unit. Transmitting power can be set for 2.4G/5.8G independently as per user request. Hop/Frequency/Work region/Air antenna select only can be changed when radio link between air unit and ground unit is securely established.



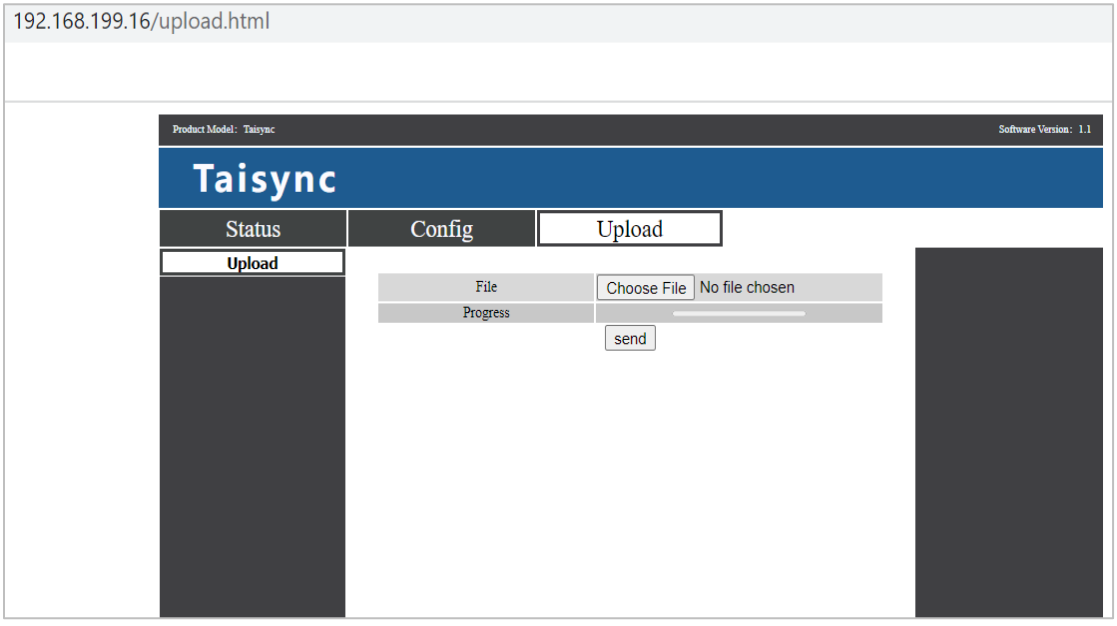
Config→Bind setting, bind process can be triggered by clicking bind instead of physical bind button.



Config→System settings, baud rate for U1/U2 two serial ports can be set independently. When QAM mode is set as adaptive, unit will dynamically change modulation scheme based on real-time signal quality. Role of pilot has bi-directional transmission while observer only has downlink data.



Upload→Upload, browser and select file to be upgraded first, then click “send” to trigger the process.



FCC Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two

conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- - Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- - Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

END