1 user manual

The user manual is based on the current version of the jet board communication V1.0 hardware and firmware V1.0.0.1.,Based on maintenance and upgrade needs, the corresponding version may be upgraded, and the corresponding manual functions will be changed accordingly.

2 Product Introduction

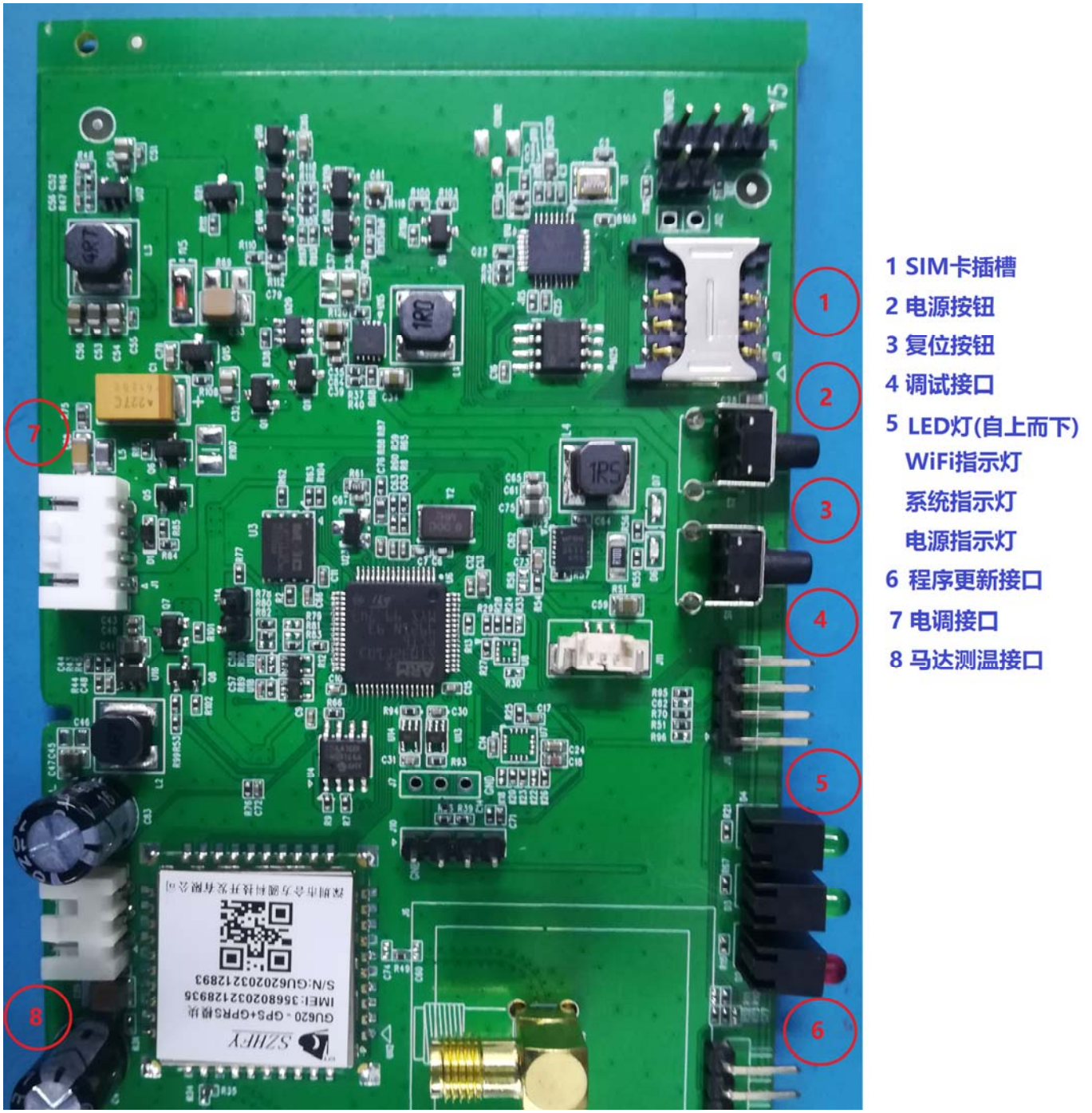
The jet board communication module functions as a data communication function with our Jet Board APP. It collects related parameters of the Jet Board system, obtains the GPS location information in real time, and uploads to the cloud server through GPRS to provide the communication guaranteed for the data link layer of the Jet Board APP.

The module provides a 5V external power supply from the power system, and a built-in 2200mAh rechargeable lithium battery, which is powered by the power supply and charged to the lithium battery of the Jet Board during normal operation. When the jet board power is turned off, the built-in battery of the GPS can also provide communication for a certain period of time. And the battery can provide 10 hours of continuous communication time in the battery state.

The system also has built-in WiFi module, and provides relevant parameters of the Jet Board system through the APP.

3 Function Description

3.1 External interface



1 SIM card slot ： Micro SIM card slot

2 Switch Button: light press will turn on the GPS; long press 3 seconds to turn off;

3 Reset button: press and hold for 3 seconds to restore the factory defaults, including Wi-Fi SSID and password, and communication board parameters, such as waiting time for the system to enter low power consumption;

4 Debugging interface: Connect the debugging line provided, you can view the system log for debugging;

5 LED light (From top to bottom):

Green WiFi indicator light: often bright, WiFi works normally; reset button for 3 seconds, flash, restore factory settings;

Green system indicator light: often bright, the system works normally; slow flashing motion; the system enters the low power mode;

Red power indicator light: often bright, system power is normal;

6.Program update interface: the debug line provided by the connection can update the firmware of jet board communication program;

7.Electrically adjustment interface: connected electrically adjustment , for communication with electrically adjustment and powering jet boards communication;

8 Motor thermometric interface: connects the motor temperature sensor;

3.2 Module function

3.2.1 System Operation Overview:

Insert the effective GPRS SIM card, set up the corresponding local operator's APN, after the correct connection electric adjustment, the jet board communication will collect the power information of the jet board regularly, and collect the GPS position information in real time, send it to the cloud server in real time, and realize the wisdom update of the real-time information of the jet board.

3.2.2 Power supply and start-up:

A 5 volt power supply is provided by the electricity adjustment. Cold state, the system starts immediately when the Jet Board main battery is connected and the power of the Jet Board is turned on, which can also manually be tuned on or off, short press to turn on, long press the power button for 3 seconds, the system shuts down. When the Jet Board is disconnected to the main battery of the Jet Board, the GPS module will automatically turn off after 3 minutes.,

3.2.3 Reset button: press and hold for 3 seconds to restore the factory defaults

3.2.4 Software update：By connecting the debugging line, setting the parameters of 115200,8N1, you can manually update the software, can update the jet board communication program, we recommend that the distributor near you to complete the update;

3.2.5 Debugging and setting：By connecting the debug line, set the parameters to 115200, 8N1.working the debug program, setting system parameters, such as the APN name of the local operator, and also for the maintainer to view jet board communication working log

Command list：

command	**function**	**Example**
setapn	**Setting the operator's APN server name**	Like China Mobile is CMNET setapn CMNET

4 Electrical Characteristics

input voltage: 5V, Maximum not exceeding 5.5V

Temperature measuring motor sensor: 10k Thermistor;

Software update and debug interface parameters: 3.3V, 115200,8N1

5 Use of environment and storage

Temperature : 0-65℃

Humidity : relative humidity≤85%R

Storage temperature: -10-65℃,L ong-term storage must be placed at a temperature of -10~25℃、Humidity 65±20％RH

Warning：

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.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B 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 or more 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.
NOTE: This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter

RF Exposure Statement

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20C m the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter