Cloud Control M-P81 manual

1、Features of cloud control:

4G/5G Smart Cloud Control System: Leveraging internet technology and cloud platforms, this system integrates lighting control systems with network connectivity. It enables remote monitoring, control, effect adjustment, scheduling, and interactive lighting operations — all through a single interface. This represents a groundbreaking advancement in LED lighting control applications. The P81 Cloud Control module delivers practical features including application upload, remote debugging, and real-time program switching, significantly boosting operational efficiency while resolving synchronization challenges in field deployments. Furthermore, comprehensive security enhancements across both software and hardware frameworks ensure robust protection against threats.

2、Cloud control parameters:

Working mode: Cloud control platform

Synchronization mode: 4G network synchronization, GPS satellite synchronization

Buckling mode: 4G network real-time transmission, USB transmission, offline file transfer

Supporting chips: Lianxin UC, Mingwei SM, Tianwei TM, Junlue GS, Zhixing HI

Supported protocols: DMX512, TTL, SPI, breakpoint resume

Support channels: RGB, RGBW, RGBCW

Load point: 100,000 pixels

Input voltage: AC110-220V

Working temperature: -20℃--60℃

Working humidity: ≤50% RH

Power: ≤5W

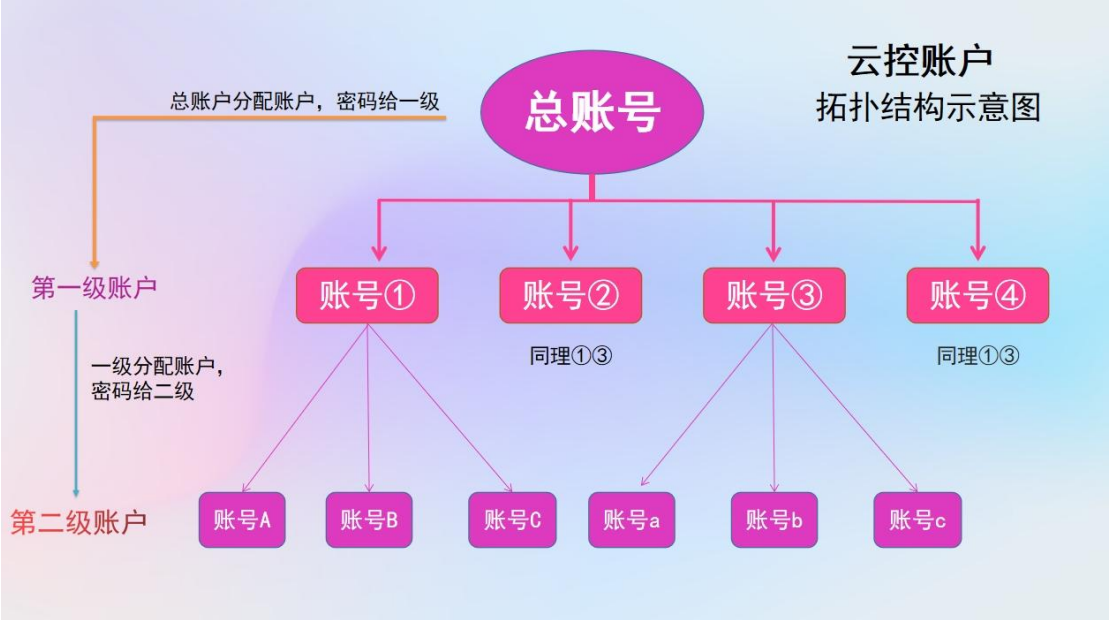
Function: upload program, real-time switching, remote debugging, 4G cloud server synchronization

Interface: USB*2, indicator light*4, audio port*1, SIM*1, input RJ45*1, satellite antenna*1, 4G antenna*1

3、Basic features

- Account management: Different accounts and passwords are different in different regions and devices. They are assigned and used by the company.
- File management: divided into real-time transmission of network files; offline file transfer, U disk file copy.
- Configuration: device operation, LED parameter configuration, code writing (same as main interface code writing).
- Testing: includes: channel test, point test, static color.
- Write code: Address the DMX512 series of lamps.
- Synchronization mode: 4G cloud control synchronization, GPS satellite system synchronization

3.1 Account Management:



1. The allocation of accounts will be uniformly allocated by the company, and the report must be submitted in advance before delivery.

2. The account is for confidential documents. If you need to change the password or lose the password, contact the company.

3. Password can be changed, try to keep records.

3.2, Document management

a , Equipment file management: online real-time upload, download, specific operation is shown in the operation instructions.

b . Network file management: offline file upload and device file download. See the operation instructions for details.

3.3. Configuration

a . configuration

- Equipment operation
  - test
  - software release
  - gain IP
  - Get CPU temperature
  - Get system time
  - lock-in time
  - operational factor
  - LED-GPS test 2
  - LED-GPS test
  - LED edition
  - LED lock-in time
  - GPS time
  - GPS date
  - GPS position
  - GPS edition
  - Synchronous mode
  - 4G synchronization
  - GPS synchronization
  - start time
  - File download progress
  - Download device files
  - Built-in files
  - user file
  - Running files
  - plant parameter
  - Temporary directory
  - Garbage removal
  - Network share
  - Device reboot
- LED parameter configuration
  - Chip list: specific chip model (such as UCS, SM, TM, HI, GS, etc.).
  - Play mode: factory effect (the controller itself has a running effect); user effect (edit, upload and download program files).
  - Cycle mode: all cycles, single file
  - Brightness: adjustable
  - Gamma value: Default 2.2
  - Read parameters: Read the controller setting parameters
  - Write parameters: "OK" and the writing of parameters
  - Refresh file list: Refresh parameter information
  - Separate control configuration: modify separate control parameters, fix separate control parameters
- Write code: DMX512 series lamp address

b. Gateway operations

- Gateway configuration: to be developed
- Scenario configuration: to be developed
- Timing configuration: to be developed

3.4. Testing

a. Channel testing

b. Point tests

3.5, Coding

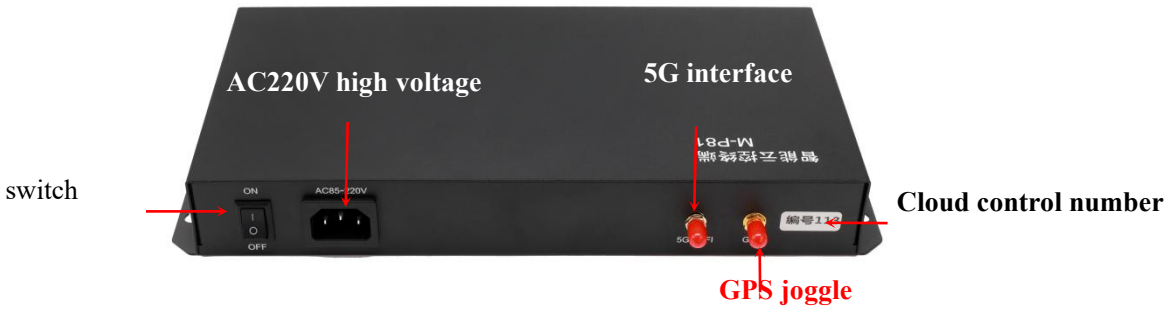
Write code requirements: chip model, sub-control number, port, write code channel interval

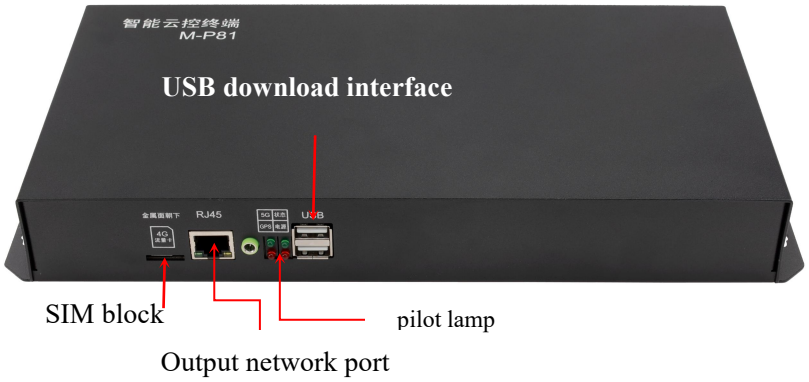
3.6. Name modification: The name of the equipment can be renamed according to the actual situation on site.

3.7. Associated devices: Devices are associated with accounts.

3.8. Password modification: The device account password can be modified according to the actual needs (remember not to change it randomly, but to modify it under authorization).

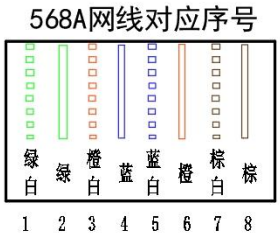
4、The interface diagram is as follows:

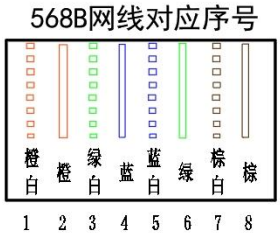


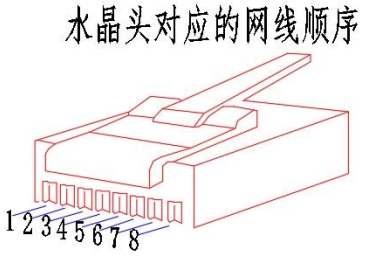


Iv. Wiring diagram is as follows:

Note: Use the 568B wire pressing method with a network cable during wiring, and fix the sub-control parameters after power on.







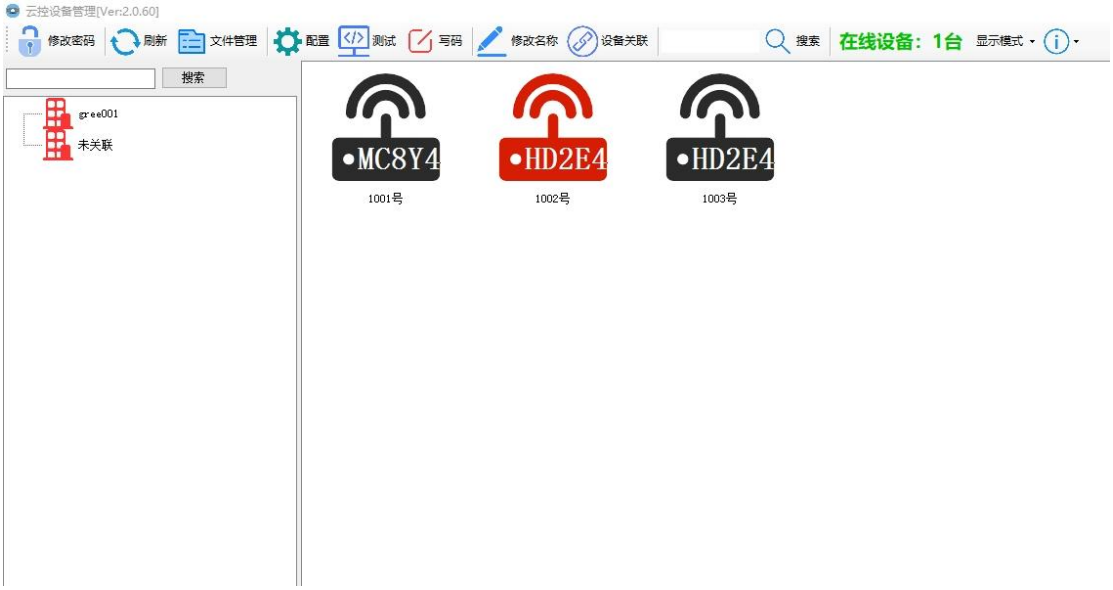
The diagram of the five-level cascaded switch is as follows:

Note: Use the 568B wire pressing method with a network cable during wiring. Set the sub-control parameters after power on.

VI. Basic usage:

Step 1: Log in to the software with your account and password. Contact your sales representative

Step 2: Software Settings



Red indicates online, black indicates offline. The device can be configured, tested, written code, and other operations only when it is online.

Step 3: Upload of program files (including online real-time upload, download; offline file upload, device file download and USB program copy)

Mode 1: Online real-time upload and download

Click "Add File" to add a program file with the.arm suffix. The total size should not exceed 3G and the size of a single file should not exceed 2G.

Method 2: Offline file upload, download device files

File upload:

Click "Select File", find the file path and select

Click "Start Uploading" to upload the file offline to the server

Download device files:

Click "Download device file"

Method 3: Copy files to USB drive

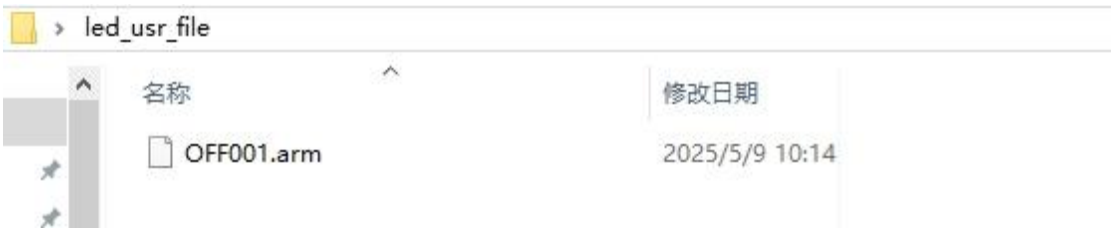
The above introduction uses 4G network signal to upload and download programs through the server. If the file is too large and the transmission is slow, or the upload fails, you can also copy the file to the cloud control machine by USB drive. The specific operation is as follows:

1. The program software generates a program file as shown in the figure on the right:

2、Create a new folder and name it (ledusr_file).

3、The program file is copied to the new folder, as shown below:

4、Copy the folder to the U disk or SD card, plug in the U disk or SD card, and open the power to automatically copy the indicator light flashing.



Test operation:

Test operation Note: The point is used for quantity test, and the channel is used for channel sequence test. The specific parameters are as follows:

Writing code:

Coding is mainly for DMX512 series lamps, other lamps do not need to code.

The details are as follows:

Step 1: Select the device number that needs to be "written"

Step 2: Click--Device number

Step 3: Click "Write code" to pop up the interface

Control number: xxxx (which is the first controller)

Port number: xxxx (which port)

Chip list: xxxx (what chip type)

Write code interval: xxxx (how many write code channels are there)

Step 5: Select the parameters and determine all the content

Click "Start coding"

Sub-control parameter configuration:

It is mainly used for fixed sub-control parameters. The sub-control only needs to receive the main control signal to play in the fixed state, which can be used for projects with several kinds of protocol lamps at the same time. The specific operation is as follows:

Step 1: Select "Configure"

Step 2: Select "LED parameter configuration" and select "sub-control configuration" as shown below:

Enter the sub-control configuration interface: as shown in the figure below

as shown in the figure ：

The configuration information includes: starting ID, chip model, brightness, gamma value, and specific field lamp information

Synchronous mode operation and switching:

As mentioned above, synchronization is divided into 4G network synchronization and GPS satellite synchronization

The details are as follows:

Step 1: Select the cloud control number----click "configure" ---select "device configuration"

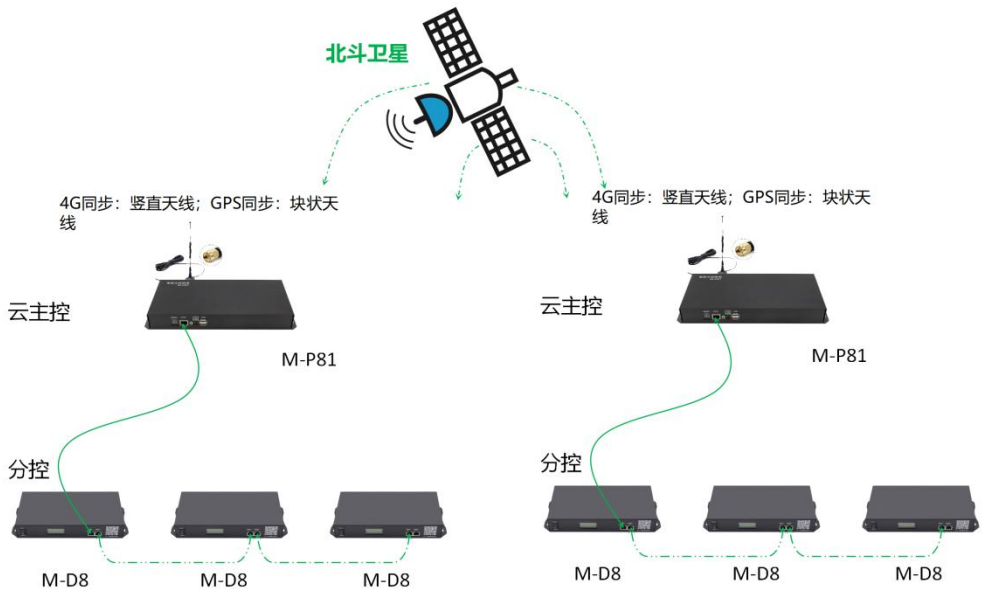
Step 2: Select "Device Operation" and click "4G Sync" as shown below:

Parameter list: as shown in the figure below

operate mode ：	4G network synchronization, GPS satellite synchronization
Load quantity:	A single cloud control has 200,000 points and can connect 255 sub-control units
grey scale ：	Class 32-65536
loading regime ：	Upload and download online in real time
working temperature ：	-20℃--75℃
working voltage ：	AC110V...220V
weight ：	Gross weight: 1.6kg Net weight: 1.4kg Gross weight: 1.6kg Net weight: 1.4kg
size ：	This machine: 30.5×14×4.2cm, packaging: 31.5*24.8*6 cm

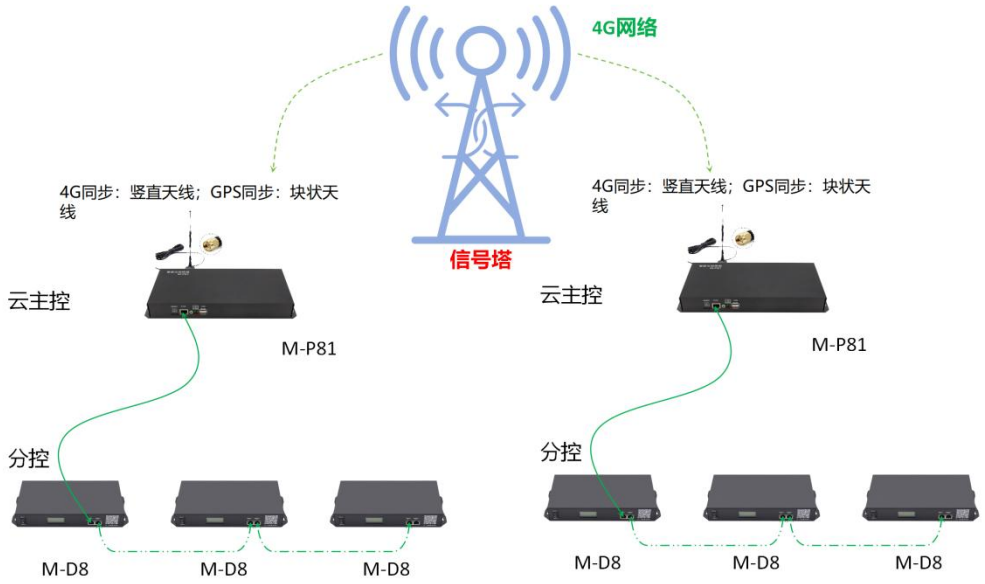
Synchronization mode diagram:

Mode 1: Synchronous satellite



Note: It is mainly used for outdoor projects. The antenna should be placed in an open position, and the speed and mode should be set to be consistent. Power can be turned on successively.

Mode 2: 4G network synchronization



Note: It is mainly used for indoor projects. The speed and mode can be synchronized through 4G network signal, and can be powered on successively.