iSEMC

# Central Control Processor

## CP800

## INTRODUCTION

CP-800 is used in command and control center, office automation, multimedia environment and smart home and other fields. The necessary equipment for the control center, widely used in emergency alarm command center, army combat command system C4ISR, government administrative centers at all levels, building automation, conference rooms, multi-function halls, training centers, exhibition centers, studios, industrial automation, etc. field.

CP-800 adopts the design idea of Internet and Internet of Things, and integrates linux platform, Google V8 kernel, and artificial intelligence technology. The neural network diagram algorithm is used for control, which supports independent drawing of any control operation diagram, and a variety of control modules are built in. The new drag-and-drop programming method makes it easy for users to master.

The man-machine interface adopts the dynamic graphics and vector graphics technology that conforms to the HTML5 standard, and supports the compilation of various vivid and beautiful dynamic human-computer interaction interfaces. Users can directly control through the browser, and can also generate designed interface software and install it on the user's tablet. Compatible with Android, IOS, Windows and other operating systems, the host supports docking methods such as one machine with multiple screens, one screen with multiple machines, and multiple screens with multiple machines. Support dual-machine backup function. When the main control host has network communication interruption or shutdown, the backup host will automatically start and take over the system to ensure the normal operation of the system.


CP800

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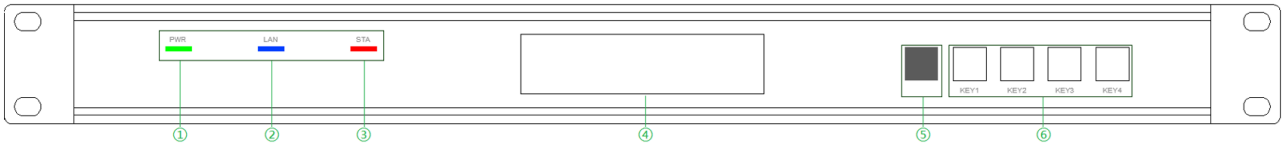
## FEATURES

- Cloud programming: supports local and cloud platform online programming at the same time, no need to install software, directly access the smart gateway IP address or cloud platform through a browser.
- Remote debugging: remote online debugging, remote online diagnosis, remote online programming, which greatly saves manpower and travel costs, and can be programmed online by professionals.
- Artificial intelligence: Before the program is uploaded, the software can check logic and interface errors by itself, and supports simulation control and interface effect preview. The artificial intelligence neural network graph control algorithm supports arbitrary complexity control operation graph weaving, and realizes free design, independent will, and closed-loop control.
- Neural network: The neural network diagram controls the operation mode, grasps the global operation status, supports the package of controlled equipment, and can effectively check the real-time operation status of each controlled equipment.
- Advanced functions: support control module grouping into macro inheritance and sharing, support user-built function modules, and can be written in JavaScript, the most popular network scripting language.
- Resource sharing: resources are shared on the cloud platform, regardless of self-built modules, macro module groups, and user graphic component groups, can be shared on the cloud platform and form a shared community.
- Multiple interface: supports three sets of mutually independent user control interfaces at the same time, supports multi-user, cross-platform, distributed control, and is suitable for multi-user cluster control scenarios.
- Arbitrary protocol: supports a variety of network control protocols, in addition to standard Tcp, Udp, Telnet, Http protocols, etc., other general or private network protocols can also be added.
- Support custom macros, editable macros, import or export macros, support graphical and statement programming, have time axis, multi-thread time editing functions, support direct programming on the control screen, users can edit the key form and key execution by themselves Linkage operation content.
- Free expansion: supports any Linux+ platform, can be freely migrated, and can integrate the free migration of the running package with the third-party product platform according to different application requirements.
- Solid and reliable: suitable for all kinds of occasions with high reliability requirements: combat command center, government conference cluster, special application vehicles, etc.

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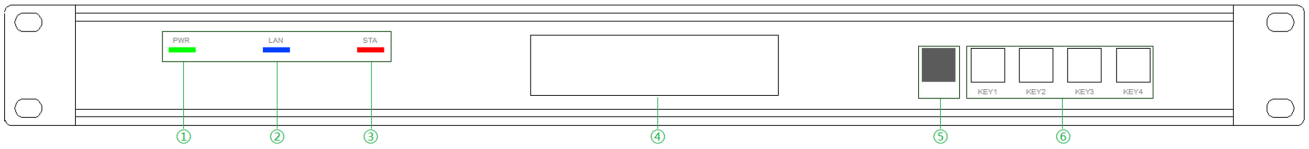
# Port description

## Front panel:




① PWR (Power Indicator).

② LAN (network port working indicator light).

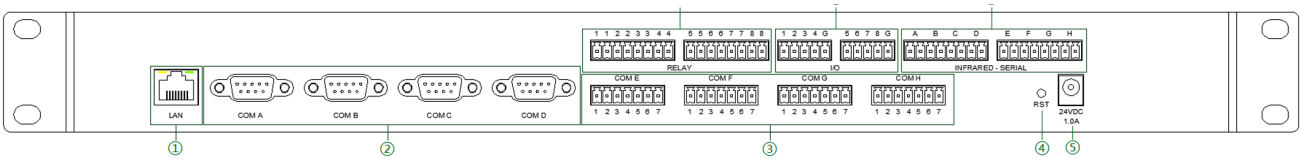
③ STA (working status indicator light).

④ LCD display, which can display the network IP, button status, system time, system version and other content of the intelligent control gateway.

⑤ Infrared learning window, supports infrared learning function, and supports more than 99% of infrared remote controls on the market.

⑥ Programmable buttons, four programmable buttons, users can flexibly configure the application functions of the four buttons according to application requirements.

## Rear panel:




① LAN, standard 10M/100M Ethernet interface, RJ45 terminal.

② COM A~D: CP800 has a total of 4 DB9 male output programmable bidirectional serial ports, supports RS-232 communication protocol, the transmission rate can reach up to 115200bps, and supports eight standard rates between 1200~115200bps.

③ COM E~H: CP800 has a total of 4 7PIN programmable bidirectional composite serial ports, supports RS-232, RS-422 or RS-485 communication protocols, the transmission rate can reach up to 115200bps, and supports eight standard rates between 1200~115200bps.

④ RST (Reset button).

⑤ Power supply 24VDC 1A, the power input port is used to connect external 24VDC power input.

⑥ RELAY low voltage relay output.

⑦ I/O input, programmable 8-way external dry contact input interface, often used for signal collection of alarms.

⑧ INFERARED-SERIAL Infrared – serial output.

**CP800**

## SPECIFICATIONS

| Product Name | CP800 |
|---|---|
| CPU (Primary) | i.MX ARM Cortex-A7 528M |
| Operating system | Linux 4.1.15 kernel |
| Memory | 512M DDR3 RAM |
| Flash | 4096M EMMC |
| RELAY | 8 - Isolated low voltage relay (normally open contact) 30VDC/AC 1A |
| I/O | 8 - Digital I/O input |
| INFRARED–SERIAL | 8 - Infrared or one-way RS-232 serial port |
| COM(A、B、C、D) | 4 - DB9 bidirectional RS-232 serial port |
| COM(E、F、G、H) | 4-7PIN bidirectional RS-232/422/485 serial port |
| LAN | 1 - RJ45 10M/100M Ethernet port |
| RST | 1 - RST System Reset Button |
| LED | 3 – LED System Status Indicator |
| Programmable keys | 4 - Front panel programmable keys |
| LCD | 1 - Front panel LCD |
| IR Learning Window | 1 - Front panel IR learning window |
| power supply | 24VDC 1A |
| installation method | Standard 19-inch cabinet or flat installation |
| Working temperature | 5°C to 45°C |
| Working environment relative humidity | 10% to 90% |
| Size and weight | Height: 45mm (excluding foot pads) |
| | Width: 430mm (not including standard cabinet mounting ears) |
| | Depth: 192mm (without terminal block) |
| | Weight: about 3.2kg (excluding packaging and accessories) |

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