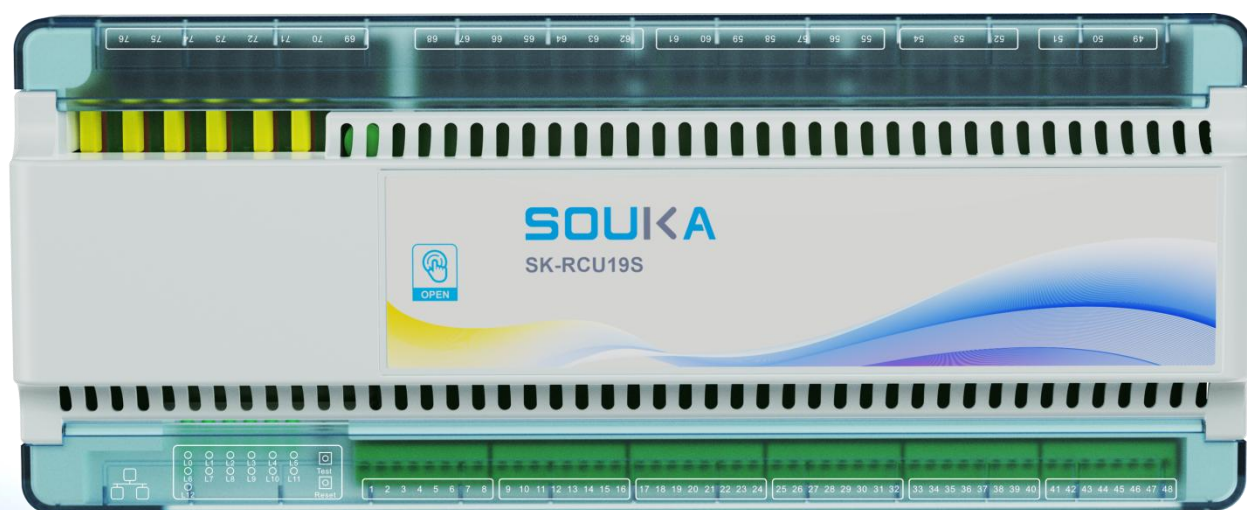


Product Datasheet

SK-RCU19S Dimming-Type Room Control Unit (RCU)



◆ Product Overview

SK-RCU19S is a newly developed dimming-type Room Control Unit (RCU) host by our company, designed to accommodate a wider range of guest room lighting scenarios and effectively manage changes in light brightness and color temperature. The unit connects to external networks via 100M TCP, enabling integration with our cloud server platform for remote control, status synchronization, upgrades, configuration, and debugging. Using an RS485 bus, it facilitates communication within the room to coordinate the orderly operation of various devices. With supporting host computer software, room number and network settings can be configured conveniently and efficiently.

◆ Product Main Features

- 11 channels of 220V/10A AC high-power circuit output.
- 2 channels of 220V/30A AC high-power circuit output.
- 4 channels of 4A low-voltage PWM dimming (100W/24V per channel).
- 2 channels of 8A low-voltage PWM high-power dimming (240W/24V per channel).
- 10 channels of low-voltage I/O output.
- 10 channels of low-voltage dry contact control signal input.
- Utilizes high-surge-resistant, moisture-proof relays with a mechanical life exceeding 100,000 cycles.
- Main control chip is a Freescale MKE automotive-grade ARM series chip, offering low heat generation, fast processing, and long service life.
- Backend control system adopts a B/S architecture, allowing information viewing and backend modification/debugging on mobile platforms. Front-desk computers only require a web browser (no software installation) for quick room status monitoring.

◆ Main Technical Parameters

Functions and interface parameters	
Main Board Power Supply	DC 12V 3A (for RCU host and external switch panels)
Dimming power supply	DC voltage 24V
	Power rating must be matched according to actual site conditions, with a minimum requirement of 400W.
Ethernet Port	1 x 100M RJ45 Port
	TCP protocol for network connection
RS485 Bus	2 channels for internal room communication
High-Power Circuits	11channels 220V/10Ahigh-power circuits
	2 channels 220V/30A AC output
Low-Power Circuits	4 channels of 4A low-voltage PWM dimming (100W/24V per channel)
	2 channels of 8A low-voltage PWM high-power dimming (240W/24V per channel)
Dry Contact Input	1 channel dry contact input
IO Output	10 channels low-voltage IO output
IO Input	10 channels low-voltage IO input.
Expansion Capability	Supports expansion with 6 additional high-power circuits and various dimming modules.
	Supports expansion with 8 additional low-voltage dry contact points.
Supported Peripherals	485-based devices such as thermostats, IR blasters, switches, motors, smart control panels, smart voice assistants, etc.
	Can support up to 128 switches, compatible with 485 switches and dry contact switches operating within the same system.
Management Functions	Room Console: Centrally monitors basic room information (room number, status, type, AC mode, service info, messages), main unit status, and other devices; enables remote control.
	Control Overview: Real-time status check of each RCU, including lights and AC.
	Room Type Management: Create and edit room types, manage floor plans and device naming, configure the smart control panel interface.
	Room Management: Manage room creation, grouping, and centralized control of bound devices.
	Guest Room Management: Batch processing of room parameter settings (mainboard, room type, IP/MAC address, etc.); configure room status,

	keycard delay, seasonal mode, etc. Supports import/export. Real-time device control based on room type. Preset AC modes based on room status, set scene modes by room type, and assign them to specific rooms.
	Doorplate Management: Manage doorplate devices, support import/export, batch upgrades, and upgrade package management. Supports custom doorplates, setting display content, recognition duration, and volume. Register guest info, view information and door opening records.
	Media Asset Management: Upload and manage multimedia resources with flexible storage path adjustment.
	System Configuration: Supports cloud data backup. View energy consumption analysis, operation logs, service events, RCU online/offline logs, RS485 device online/offline logs. Configure whether the doorplate captures an image when someone rings the bell and displays a prompt on the in-room TV or smart control panel. Features include host search function, control restoration package management, and linked device settings.
Physical Parameters Specifications	
Chassis Dimensions	287*117*68mm
Operating Temp./Humidity	-10℃-45℃、40%-70%
Storage Temp./Humidity	-40℃-70℃、40%-95%

Product Interface Diagram

100M RJ45 Network Interface

L0~L17: High-power circuit output status indicators.

Test: Test button.

Reset: Reset button. Press and hold for 5 seconds to reset/reboot the system.

K10~K9: 2 channels of IO Input.

BL3~BL0: 4 channels of IO Output.

GND: Low-Voltage Ground.

+12V: DC 12V Output.

IN: Dry Contact Input.

OUT: Dry Contact Output.

K8~K7: 2 channels of IO Input.

GND: Low-Voltage Ground.

+12V: DC 12V Output.

K6~K1: 6 channels of IO Input.

GND: Low-Voltage Ground.

+12V: DC 12V Output.

RL5~RL0: 6 channels of IO Output.

GND: Low-Voltage Ground

+12V: DC 12V Output.

485_B2: RS485 Bus B.

485_A2: RS485 Bus A.

GND: Low-Voltage Ground.

+12V: DC 12V Output.

AGND 和 ADC IN: no function currently.

485_B1: RS485 Bus B.

485_A1: RS485 Bus A.

GND: Low-Voltage Ground.

DC12V: DC 12V3A Input.

P5~P4: 2 channels of 8A low-voltage PWM high-power dimming (240 W/24 V per channel).

P3~P0: 4 channels of 4A low-voltage PWM high-power dimming (100 W/24 V per channel).

24V- : DC 24V dimming power supply negative input.

24V+ : DC 24V dimming power supply positive input.

L12~L2: 11 channels of high-power circuit output, 220V/10A AC.

AC_L2 : Common input for high-power circuits L12 - L2, connect to AC 220V live wire.

(The default common input fuse for these 11 high-power circuits is 20A250V AC) .

L1: High-power circuit output 220V/30A AC.

AC_L1: Input for high-power circuit L1. Connect to AC 220V Live wire.

L0: High-power circuit output 220V/30A AC.

AC_L0: Input for high-power circuit L0. Connect to AC 220V Live wire.

