

# SC1216W



## WIFI 16 relay control module

[http:// www.sonbus.com](http://www.sonbus.com)

### Product Overview

SONBEST SC1216W is a relay module which can realize remote control through wireless network. This module can monitor the power supply of industrial equipment, test equipment, unattended, computer room, physical store, intelligent home such as hotel. , Shopping malls plant, daily office, villas and luxury street lamps, such as local and remote control.



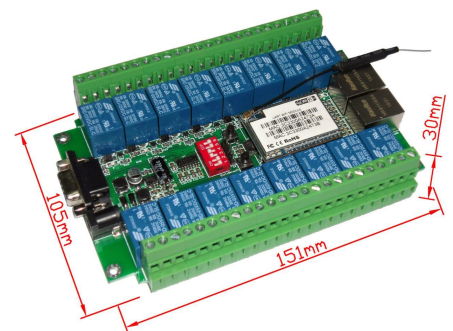
### Technical parameters

Parameter	Technical indicators
Input voltage	DC 5V
Power consumption	1.3~10W
Relay controlled load	AC 250V 10A; DC 30V 10A
working environment	-10℃~85℃
storage temperature	-20℃~70℃
Dimensions	151mm×105mm×30mm
interface	Serial port, two Ethernet ports, 16 relay interface, WIFI
Wireless parameters	
WIFI working mode	Wireless network card / wireless access point / wireless router
Wireless standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
Wireless transmission rate	11n: up to 150Mbps 11g: up to 54Mbps 11b: up to 11Mbps
Frequency Range	2.4-2.4835G
Transmission power	12-15 DBM
WIFI working mode	Wireless LAN / Wireless Access Point
Wireless security	Wireless security features 64/128/152 bits WEP encryption WPA-PSK / WPA2-PSK, and WPA / WPA2 security mechanisms
Transmission distance	100-300 meters (different environmental conditions, different transmission distance)
Serial to network	
Maximum transfer rate	1200~230400bps
TCP connection	The maximum number of connections> 20
UDP connection	The maximum number of connections> 20

### ORDERING INFORMATION

Type	Interface
SG0290B	GPRS
ST0290B	TCP/IP

### Dimensions



## Features

1. 16 relay control, each channel can be AC 250V 10A or DC 30V 10A
2. Reliable system core for security and long-running system applications
3. Module integrated 10 / 100M adaptive Ethernet interface
4. Low-power WIFI module
5. Perfect support for 802.11 b / g / n protocol
6. Support WIFI encryption WEP / WPA-PSK / WPA2-PSK / TKIP / AES
7. Support wireless work in the AP mode and node (Station) mode, the real hardware AP, support for iPhone android system and all other WIFI connection, support AP and station at the same time online function
8. Optional TCP Server / TCP Client / UDP work Mode, support network protocols: TCP / UDP / ARP / ICMP / HTTP / DNS / DHCP
9. Free secondary development test software

## Hardware description



## Interface description

Name	Description
RS232 interface	Used for data communication and AT commands
Power supply interface	DC 5V
WAN, LAN port	WAN: There is routing, LAN: no routing
Binding posts	AC 250V 10A; DC 30V 10A

## Indicator Description

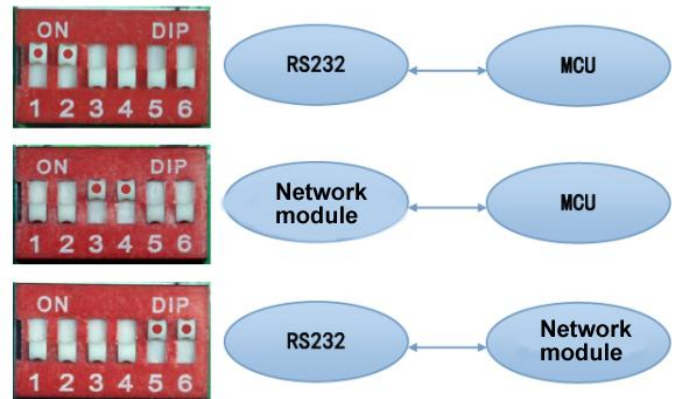
Serial number	Color	Description
Backplane POWER	Red	Total Power Indicator
Module POWER	Red	The core module power supply indicator
Module WAN	Yellow	On: The WAN port is not plugged in

		Off: The WAN port is plugged in Blinking: There is data transmission
Module WIFI	Yellow	WIFI work normally when the first flash, there is data transmission, flashing faster
0 to F	Yellow	Relay operating status indicator

## Internal button function

Name	Description
WPS/Default	Short press (0.5-5 seconds): WPS a key encryption Press and hold (for more than 6 seconds): Restore the factory default settings
Exit/Default	Short press (0.5-5 seconds): The module enters the AT command mode Press and hold (for more than 6 seconds): Restore the factory default settings

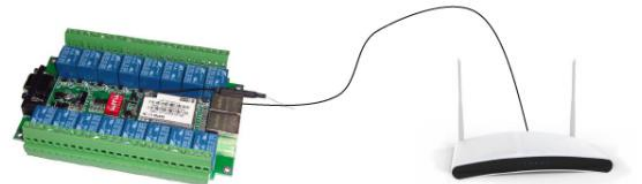
## DIP switch function settings



## Function Description

Module function can be divided into 4 major modes: the default mode, serial to Ethernet, serial port to WIFI CLIENT and serial port to WIFI AP.

### 4.1 Serial to Ethernet



In this mode, the WAN port is enabled, and the WIFI and LAN functions are disabled. Ethernet can be configured as a dynamic IP address (DHCP) or as a static IP address (STATIC)

#### 4.2 serial port to WIFI CLIENT



In this mode, WIFI is enabled, and in the CLIENT mode, the WAN and LAN functions are disabled. The WIFI CLIENT can be configured as either a dynamic IP address (DHCP) or a static IP address (STATIC). WIFI security support all current encryption methods.

#### 4.3 serial port to WIFI AP



In this mode, WIFI is enabled and works in AP mode. WAN and LAN functions are disabled.

WIFI security support all current encryption methods.

WIFI device can be connected to the module, a WIFI LAN equipment.

#### 4.4 Default Mode

In this mode, WIFI and Ethernet are all enabled.

WIFI security support all current encryption methods.

In this mode, the WIFI device can be connected to the module to become a device under the WIFI LAN.

WAN-side default dynamic IP address mode. LAN, WIFI for the same LAN, the default open the DHCP server.