

## **Product Introduction**

JDY-40 is developed by 2.4G technology, with a distance of 120 meters. It uses serial communication interface, which is simple and quick to use. You can apply JDY-40 to products only needs to know the knowledge of serial port.

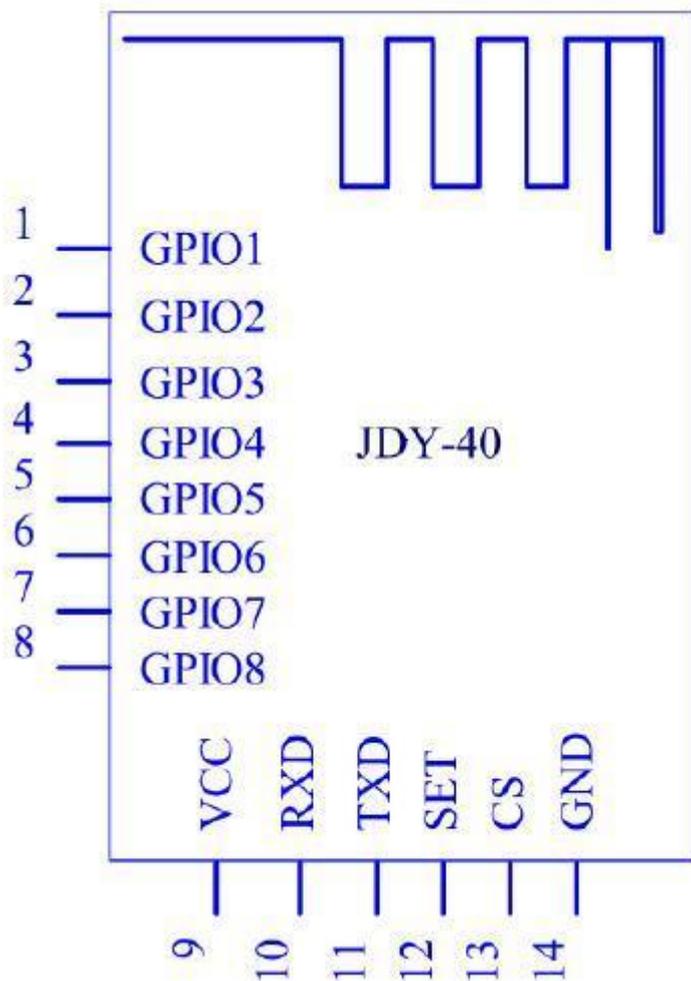
## **Technical Parameter**

Model	JDY-40
Operating frequency range	2.4G
Transmit power	MAX 12db
Working temperature	-40°C - 80°C
Reception sensitivity	-97db
Transmission distance	120meters
TX current	40mA
RX current	24mA
Sleep current	5uA
Communication interface	Standard TTL serial port

## **Application Scene**

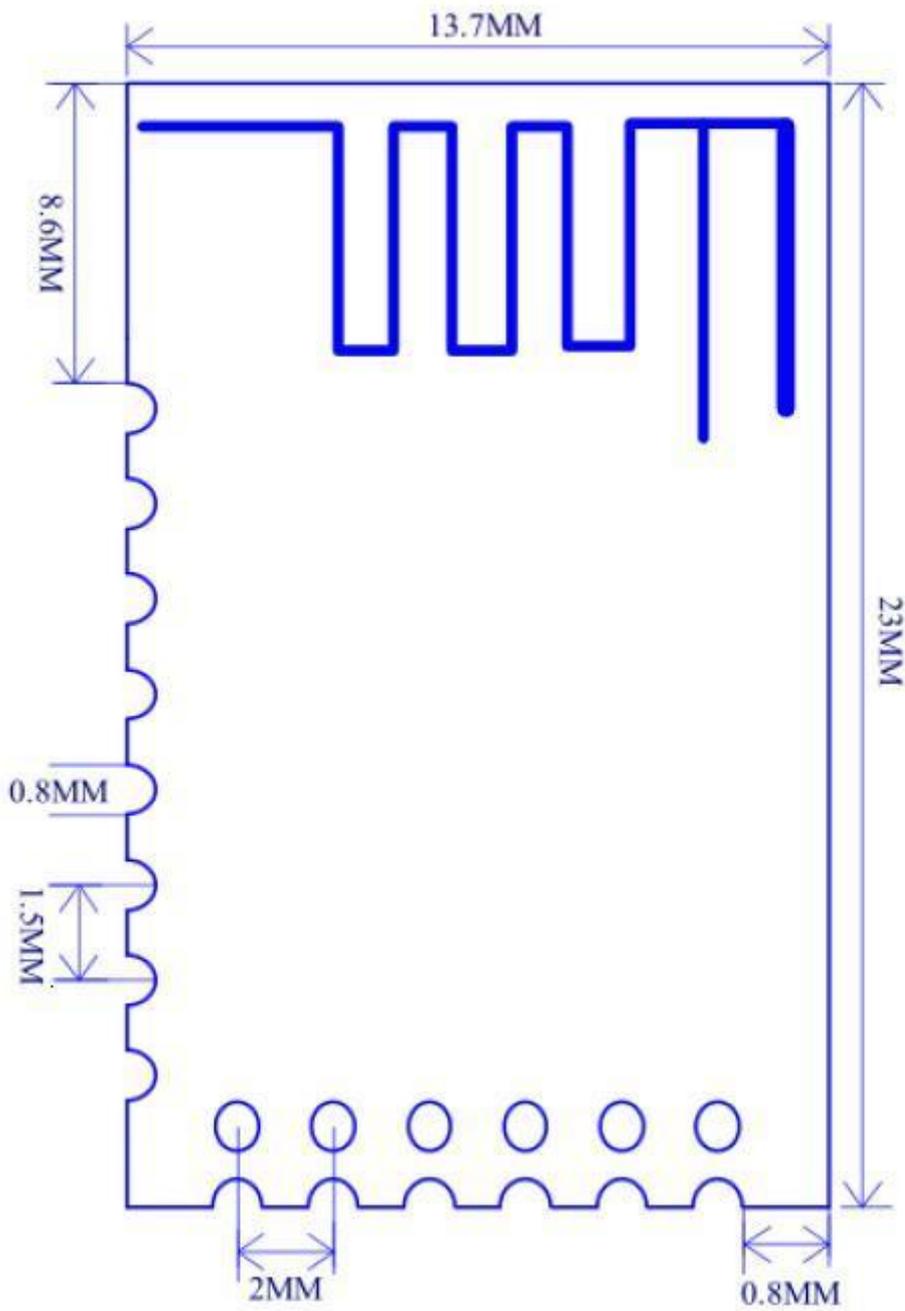
- 2.4G panel switch
- 2.4G remote controller
- 2.4G transparent transmission
- Mobile phone one-to-many control
- IO switching control
- 2.4Gtoys
- Application of intelligent home control

## **JDY-40 Pin Definition**



Pin	Pin Names	Function
1	GPI01	Input/output IO, which can be configured by AT+CLSS
2	GPI02	Input/output IO, which can be configured by AT+CLSS
3	GPI03	Input/output IO, which can be configured by AT+CLSS
4	GPI04	Input/output IO, which can be configured by AT+CLSS
5	GPI05	Input/output IO, which can be configured by AT+CLSS
6	GPI06	Input/output IO, which can be configured by AT+CLSS
7	GPI07	Input/output IO, which can be configured by AT+CLSS
8	GPI08	Input/output IO, which can be configured by AT+CLSS
9	VCC	Power Supply (2.2V - 3.6V)
10	RXD	Serial port input pin
11	TXD	Serial port output pin
12	SET	AT command switching pin (low level AT instruction, high level transparent transmission)
13	CS	CS chip select pin (low level of awaken, high level of sleep)
14	GND	Power Ground

### [Dimensional Drawing](#)



**Default Configuration**

Sequence	Function	Parameter	instructions
1	Baud rate	9600	AT+BAUD
2	Wireless ID	8899	AT+RFID8899
3	Device ID	1122	AT+DVID1122
4	Channel	001	AT+RFC001
5	Transmit power	12db	AT+POWE9
6	Device type	A0	AT+CLSSA0

**AT Instruction Set**

Sequence	instructions	Effect	Default
1	AT+BAUD	Baud rate	9600
2	AT+RFID	Wireless ID	8899
3	AT+DVID	Device ID	1122
4	AT+RFC	Channel (128 Channels)	001
5	AT+POWE	Transmit power	+10db
6	AT+CLSS	Type	A0

### AT instruction instructions

In particular, the JDY-40 module sends the AT instruction need to end the symbol \r\n

#### Setting / query - baud rate

Instruction	Response	Parameter
AT+BAUD<Param>	OK	Param (1-7) 1:1200 2:2400 3:4800 4:9600 5:14400 6:19200 Default Value: 4
AT+BAUD	+BAUD=<Param>	

#### RFID Setting / query - RFID

Instruction	Response	Parameter
AT+RFID<Param>	OK	Param (0000-FFFF)
AT+RFID	+BAUD=<Param>	Default Value:8899

#### Setting / query - DVID

Instruction	Response	Parameter
AT+DVID<Param>	OK	Param (0000-FFFF)
AT+DVID	+BAUD=<Param>	Default Value:8899

#### RFID Setting / query - RFC

Instruction	Response	Parameter
AT+RFC<Param>	OK	Param (001-128)
AT+RFC	+RFC=<Param>	Default Value:001

**POWE Setting / query - POWE**

Instruction	Response	Parameter
AT+POWE<Param>	OK	Param(0-9) 0: -25db 1: -15db
AT+POWE	+POWE=<Param>	2: -5db 3: 0db 4: +3db 5: +6db 6: +9db 7: +10db 8: +10db 9: +12db

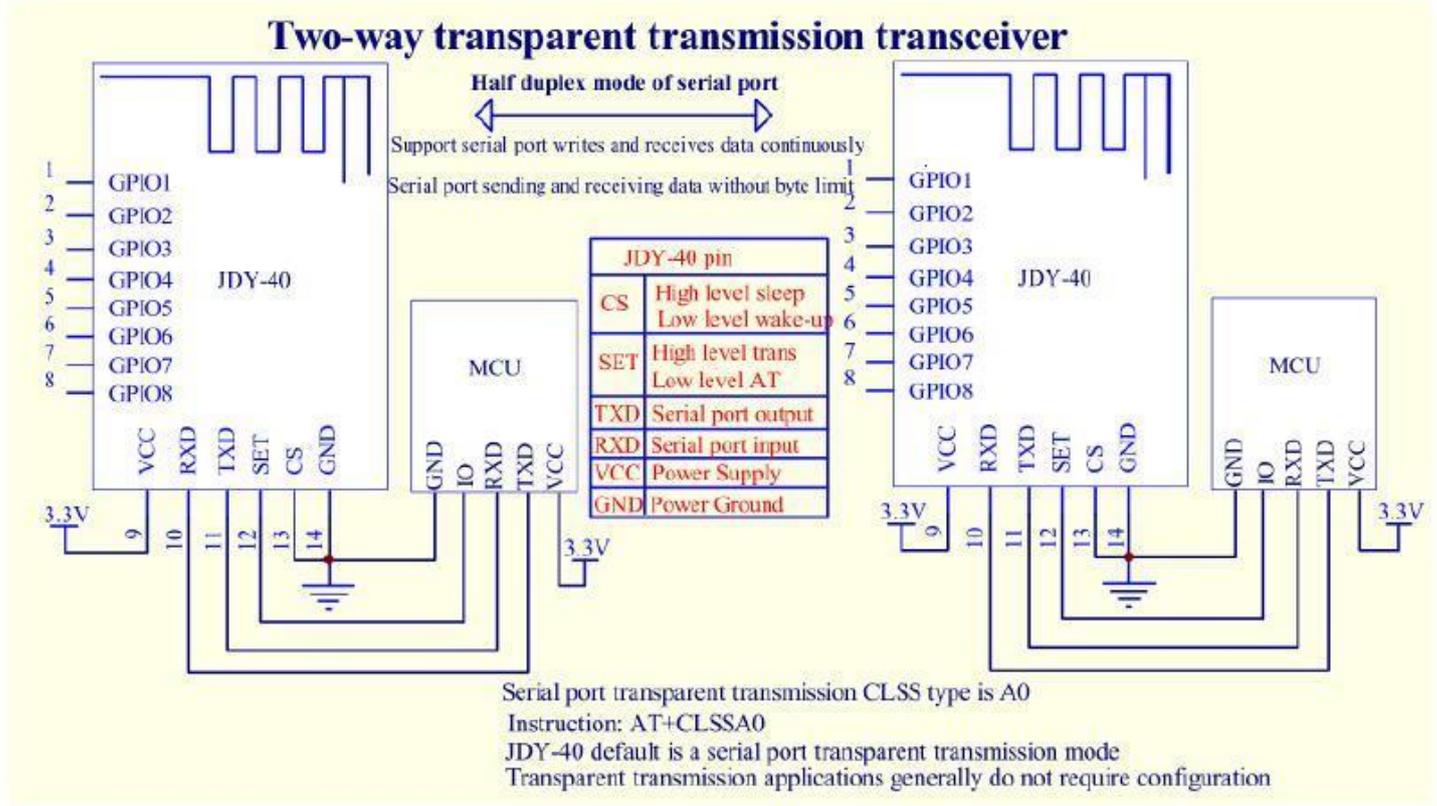
**Setting / query – CLSS type**

Instruction	Response	Parameter
AT+CLSS<Param>	OK	Param A0: Serial port transparent transmission(Transceiver)
AT+CLSS	+CLSS=<Param>	C0: Remote controller or IO key indicator light(Transmitting terminal) C1: remote controller or IO key without indicator light (Transmitting terminal) C2:IO is high level at normal level, low level after receiving signal and high level after delay 30mS C3:IO is low level at normal level, high level after receiving signal and low level after delay 30mS C4:IO is low level at normal level, receives pressed signal of high level and receives lift signal low level C5: The IO level is reversed when IO receives the pressed signal. Default Value:A0

**JDY-40 Application Wiring Diagram**

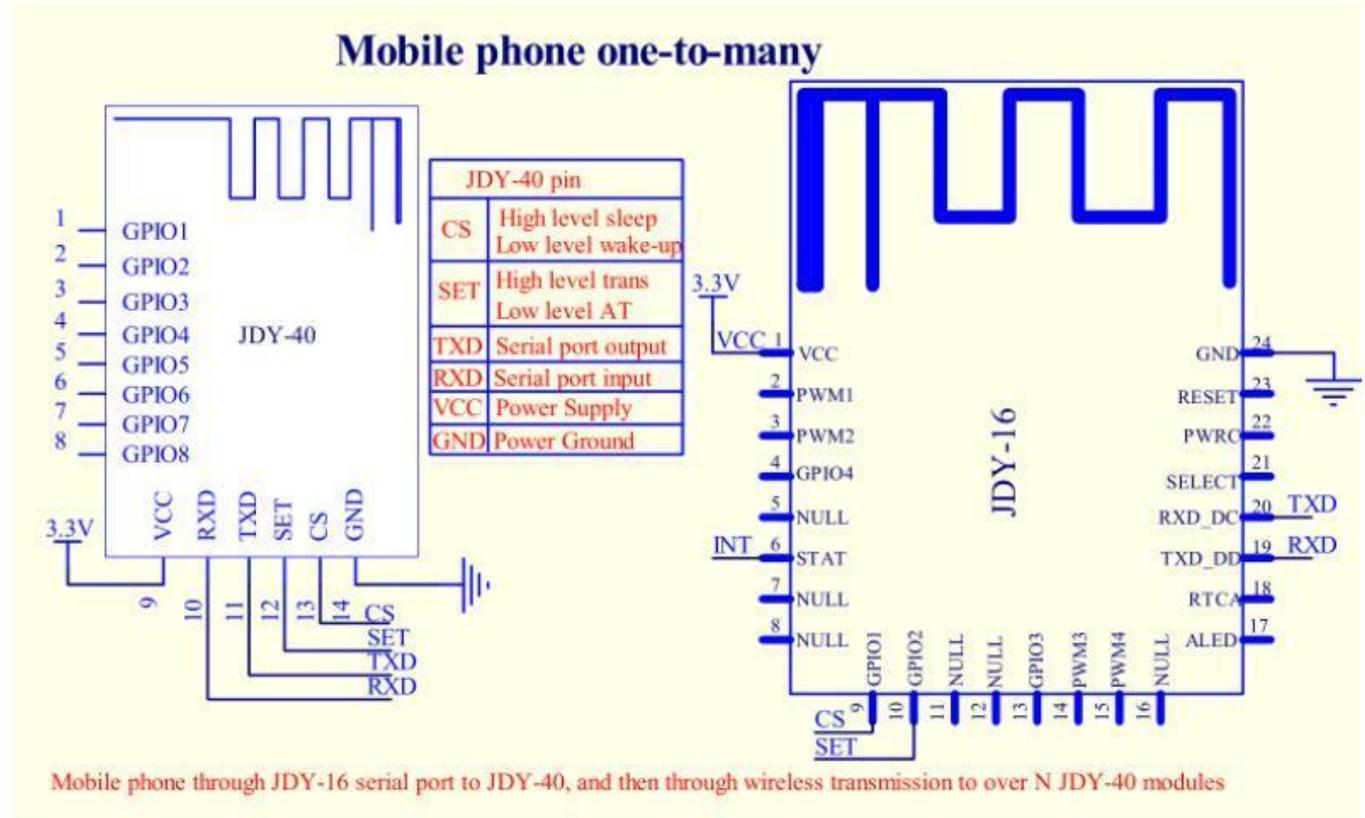
Serial port transparent transmission application circuit diagram

It can be applied to MCU and MCU wireless serial port transparent transmission, instrument and electronic toys.



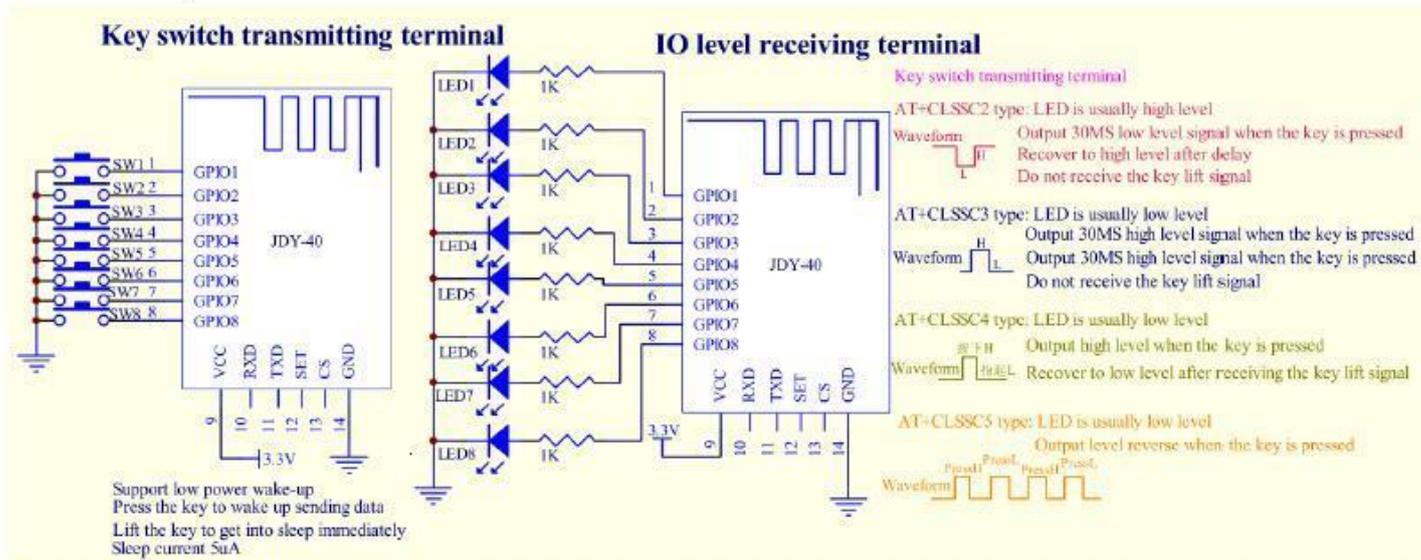
### Mobile phone one-to-many control

It can be applied to mobile phone one-to-many control, mobile phone one-to-many transparent transmission, mobile phone one-to-many application of intelligent furniture control.



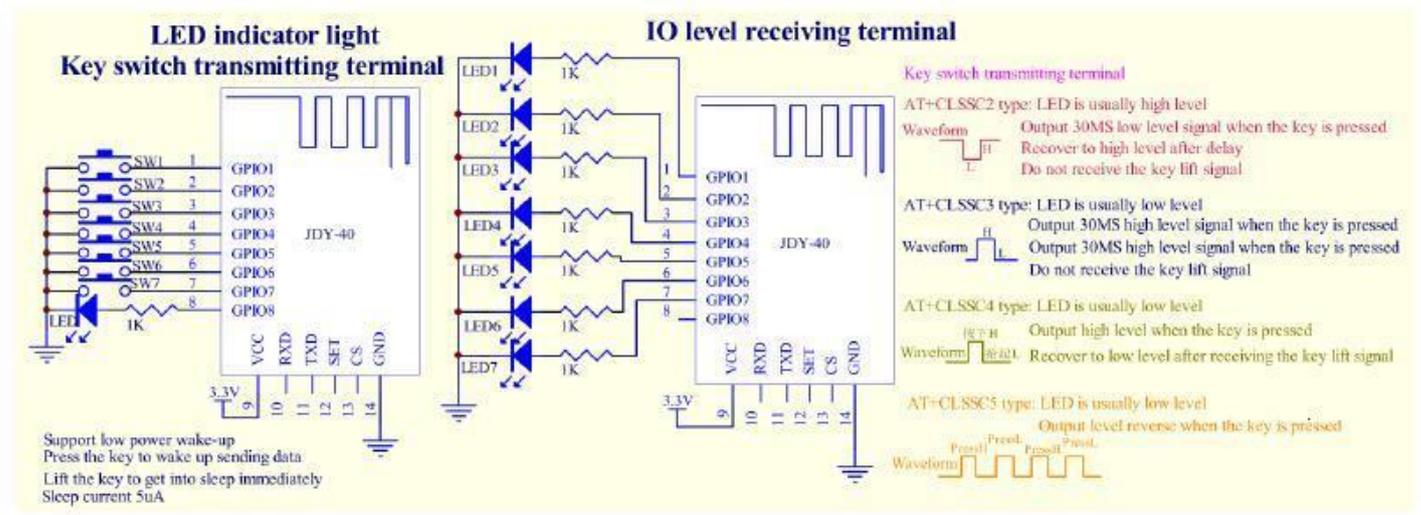
### Switching control 1

It can be applied to: the 2.4G remote controller with 8 IO can be applied to the remote control key and support the low function, two 7th batteries can be used for at least one year, application of low power consumption switch panel in intelligent home, and 2.4G toy application.



### Switching control 2

It can be applied to: the 2.4G remote controller with 7 IO can be applied to the remote control key and support the low function, two 7th batteries can be used for at least one year, application of low power consumption switch panel in intelligent home, and 2.4G toy application.



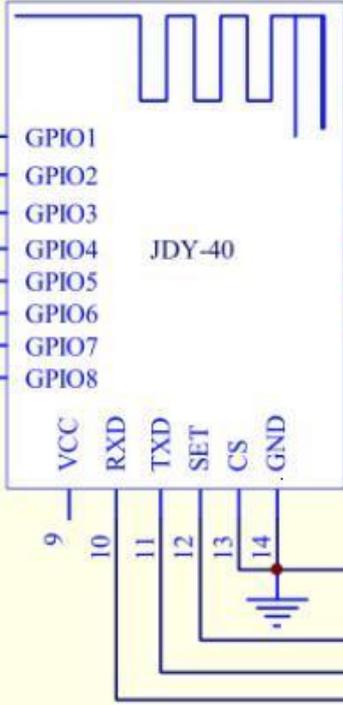
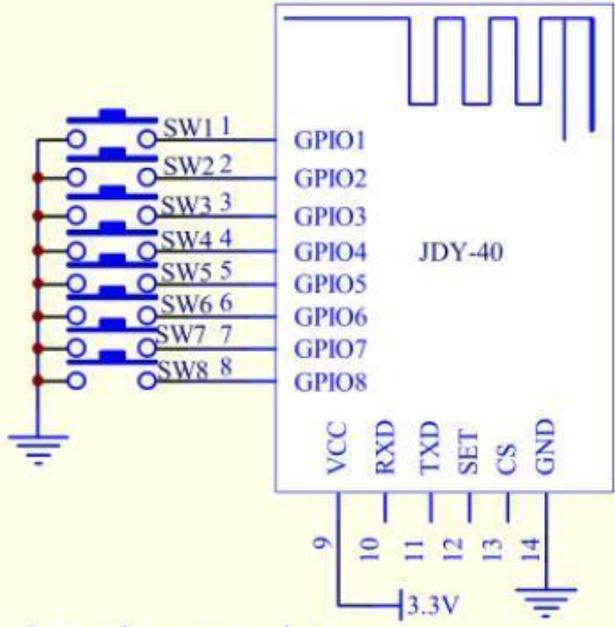
### Switching control 3

It can be applied to: the 2.4G remote controller with 8 IO can be applied to the remote control key and support the low function, two 7th batteries can be used for at least one year, application of low power consumption switch panel in intelligent home, and 2.4G toy

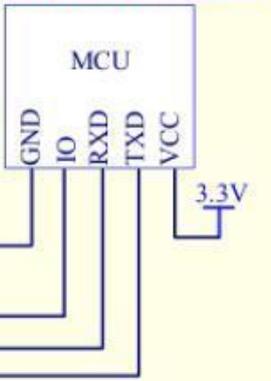
application.

### Key switch transmitting terminal

### Serial port receiving terminal



JDY-40 pin	
CS	High level sleep Low level wake-up
SET	High level trans Low level AT
TXD	Serial port output
RXD	Serial port input
VCC	Power Supply
GND	Power Ground



Support low power wake-up  
 Press the key to wake up sending data  
 Lift the key to get into sleep immediately  
 Sleep current 5uA