

Arduino GPRS Module With PCB Antenna

Model:SIM800L GPRS

User Manual



The description of pins:

The name of pins Description

5v Power interface Power the module

CONNECT TO DC5v

GND

VDD TTL UART interface The TTL UART serial interface, you can connect the MCU like 51MCU or ARM or MSP430 directly. The pin of VDD is used to match voltage of the TTL.

SIM_TXD

SIM_RXD

GND if this pin is unused, keep open

RST RST the module, if this pin is unused, keep open

The name of pins Description

5v Power interface Power the module

CONNECT TO DC5v

GND

VDD TTL UART interface The TTL UART serial interface, you can connect the MCU like 51MCU or ARM or MSP430 directly. The pin of VDD is used to match voltage of the TTL.

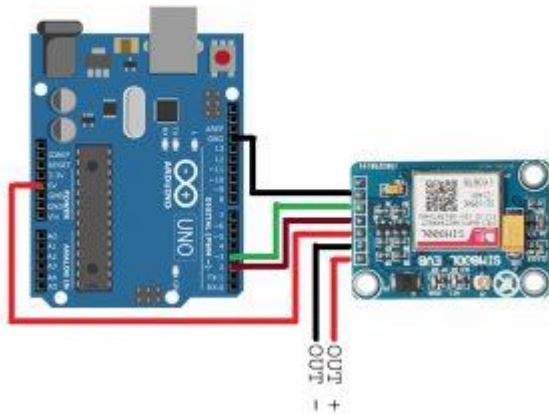
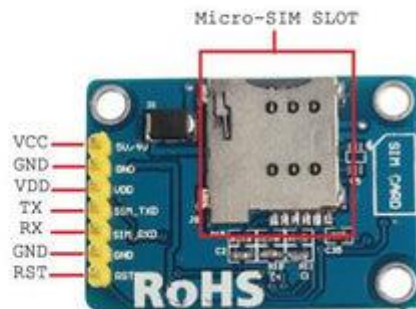
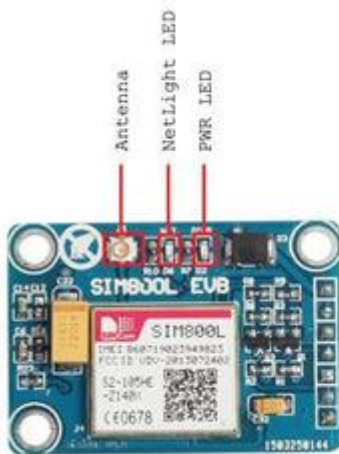
SIM_TXD

SIM_RXD

GND if this pin is unused, keep open

RST RST the module, if this pin is unused, keep open

Pinout:



Arduino Sample Code:

BELOW IS AN ARDUINO SKETCH FOR THIS MODULE used with a LM35 TEMPERATURE SENSOR to send the Temperature to your Mobile.

```
#include <SoftwareSerial.h>
#include <String.h>
String lat = "52.6272690";
String lng = "-1.1526180";
SoftwareSerial sim800l(10, 11); // RX, TX
float sensorValue;
const int buttonPin = 7;
int buttonState = 0;
float tempC;
float tempCavg;
int avgcount = 0;
void setup()
{
  pinMode(buttonPin, INPUT);
  sim800l.begin(9600);
```



```

Serial.begin(9600);
delay(500);
}

void loop()
{

    buttonState = digitalRead(buttonPin);

    if (buttonState == 0) {
        while(avgcount < 50){
            sensorValue = analogRead(A0);
            tempC = sensorValue * 5.0;
            tempC = tempC / 1024.0;
            tempC = (tempC - 0.05) * 100;
            tempCavg = tempCavg + tempC;
            avgcount++;
        }
        delay(300);
        Serial.println(tempCavg/ 50);
        tempCavg = tempCavg / 50;
        SendTextMessage();
    }

    if (sim800l.available()){
        Serial.write(sim800l.read());
    }
}

void SendTextMessage()
{
    Serial.println("Sending Text...");
    sim800l.print("AT+CMGF=1\r"); // Set the shield to SMS mode
    delay(100);

    sim800l.print("AT+CMGS=\"+44795*****\r\");
    delay(200);
    // sim800l.print("http://maps.google.com/?q=");
    // sim800l.print(lat);
    // sim800l.print(",");
    // sim800l.print(lng);
    sim800l.print("The temperature is: ");
    sim800l.print(tempCavg);
    sim800l.print(" degrees C");
    sim800l.print("\r"); //the content of the message
    delay(500);
    sim800l.print((char)26); //the ASCII code of the ctrl+z is 26 (required according to the datasheet)
    delay(100);
    sim800l.println();
}

```



```
Serial.println("Text Sent.");  
delay(500);  
tempCavg = 0;  
avgcount = 0;  
}
```

```
void DialVoiceCall()  
{  
  sim800l.println("ATD+4479*****;");//dial the number, must include country code  
  delay(100);  
  sim800l.println();  
}
```

