GPRS Module

-SIM900 GSM/GPRS Module

Overview

GPRS module is a GSM/GPRS module based on the SIM900 Quad-band GSM/GPRS module. It is controlled via AT commands (GSM 07.07 ,07.05 and SIMCOM enhanced AT Commands), and fully compatible with Arduino / Iteaduino and Mega.

Features

- Quad-Band 850/900/1800/1900MHz
- GPRS multi-slot calss 10/8
- GPRS mobile station class B
- Compliant to GSM phase 2/2+
- Class 4 (2W@850/900MHz)
- Class 1 (1W@1800/1900MHz)
- Control via commands (GSM 07.07, 07.05 and SIMCOM enhanced AT Commands)
- Short message service
- Free serial port selection
- 3.5 inch standard sonic sockets for MIC and phone
- Operation temperature: -40℃ ~ +85℃

Specifications

PCB size	71.4mm X 66.0mm X 1.6mm
Indicators	PWR, status LED, net LED
Power supply	5V
Communication Protocol	UART
RoSH	Yes

Electrical Characteristics

Specification	Min	Type	Max	Unit
Power Voltage（Vsupply）	4.5	–	5.5	VDC
Input Voltage VH：	0.7VCC	–	5.5	V
Input Voltage VL：	–0.3	0	0.3VCC	V
Current Consumption（pulse）	–	–	2000	mA
Current Consumption（Continues）			500	mA
Baud rate		115200		bps

Hardware
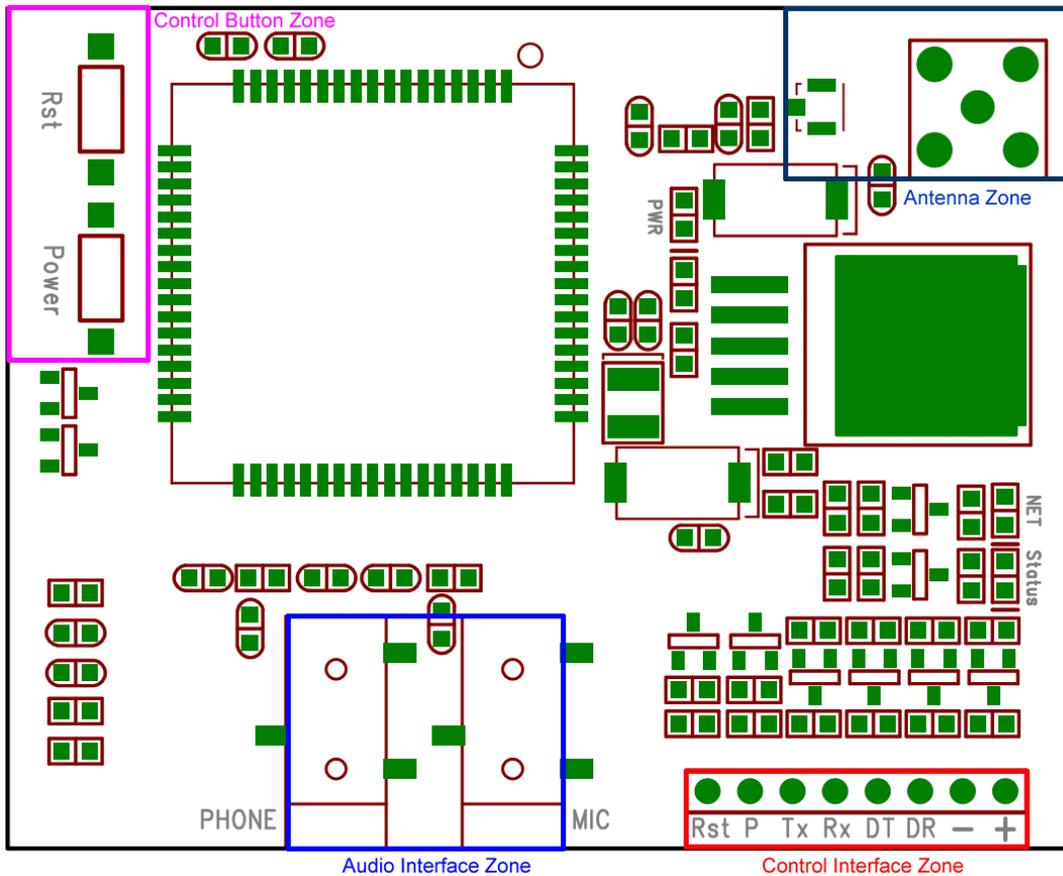
Figure 1 Top Map

Interface	Pin	Description
Rst	1	Reset the SIM900 module
P	2	Power switch pin of SIM900 module
Tx	3	UART data output
Rx	4	UART data in
DT	5	Debug UART data output
DR	6	Debug UART data input
–	7	GND
+	8	VCC

Installation

Power on GPRS module

User can power on the GPRS module by pulling down the PWR button or the P pin of control interface for at least 1 second and release. This pin is already pulled up to 3V in the module internal, so external pull up is not necessary. When power on procedure is completed, GPRS module will send following URC to indicate that the module is ready to operate at fixed baud rate.

Indicator LED and Buttons:

NETSTATUS: The status of the NETSTATUS LED is listed in following table:

Status	Description
Off	SIM900 is not running
64ms On/800ms Off	SIM900 not registered the network
64ms On/3000ms Off	SIM900 registered to the network
64ms On/300ms Off	GPRS communication is established

STATUS: Power status of SIM900.
PWR: Power status of GPRS module.

PWR: After the GPRS module power on, you need to press the POWER button for a moment to power on the SIM900 module.
RESET: Reset the SIM900 module.

Revision History

Rev.	Description	Release date
v1.0	Initial version	2011-12-06