

GSM Modem-Arduino Compatible

This is a very low cost and simple Arduino GSM and GPRS shield. We use the module SIMCom SIM900A. The Shield connects your Arduino to the internet using the GPRS wireless network. Just plug this module onto your Arduino board, plug in a SIM card from an operator offering GPRS coverage and follow a few simple instructions to start controlling your world through the internet. You can also make/receive voice calls (you will need an external speaker and microphone circuit) and send/receive SMS messages.



Features

- TTL data(Rx,Tx,GND).
- SMA connector with GSM antenna.
- SIM card holder.
- Configurable baudrate.
- Inbuilt powerful TCP/IP protocol stack for internet data transfer over GPRS.
- Package includes: GSM Modem shield.
- Power requirements: It is recommended that the board be powered with an external power supply.

Applications

- Access control devices.
- Supply chain management.

Specifications

Parameter	Value
Operating voltage	+5v DC
weight	+/-140g

Pin Specification

Pin	Name	Details
1	GND	Power supply ground
2	5v	Power supply
3	tx	transmitter
4	rx	receiver



Working

Unlike mobile phones, a GSM modem doesn't have a keypad and display to interact with. It just accepts certain commands through a serial interface and acknowledges for those. These commands are called as AT commands. There are a list of AT commands to instruct the modem to perform its functions. Every command starts with "AT". That's why they are called as AT commands. AT stands for attention.

In our simple project, the program waits for the mobile number to be entered through the keyboard. When a ten digit mobile number is provided, the program instructs the modem to send the text message using a sequence of AT commands

Testing your GSM modem

- The GSM modem can be tested by connecting it with a PC. The modem is equipped with a RS232 cable. Just use a Serial to USB converter and connect it with the PC.

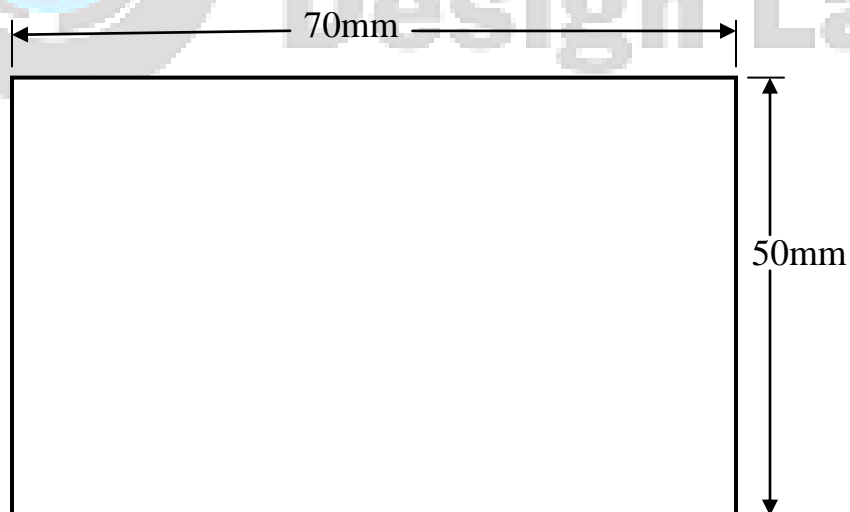
- Now you can proceed with sending the commands to the modem using any serial communication program like Hyperterminal, minicom etc. Ensure the serial parameters are configured to 8N1 and the baudrate is set to 9600bps.
- For each command you send the modem acknowledges with a message. Example: Just try sending "AT" to the modem. It sends back a result code "OK" which states that the modem is responding. If it's not working fine, it sends "ERROR".

Sample Application

To view sample code and schematic click the below link:

<http://researchdesignlab.com/index.php/modules/gsm-modem-arduino-compatible.html>

Board Dimensions



To buy this product click the below link:

www.researchdesignlab.com

<http://researchdesignlab.com/index.php/modules/gsm-modem-arduino-compatible.html>

To view the complete datasheet of SIM 900A used in GSM click the below link:

<http://forum.researchdesignlab.com/datasheet/SIM900A>



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