

# ITEAD 3G Shield

De ITEAD Wiki

## Contenido

- 1 Overview
- 2 Features
- 3 Specifications
- 4 Electrical Characteristics
- 5 Hardware
- 6 Installation
- 7 Download
- 8 Useful Links

## Overview

The 3G shield is based on SIM5216A or SIM5216E module. The 3G shield can be used for 3G communication, it is controlled via AT commands and fully compatible with Arduino. The difference between SIM5216A and SIM5216E is as follows:



SIM5215/SIM5216 series frequency bands			
Standard	Frequency	SIM5215/6E	SIM5215/6A
GSM	GSM 850MHz	✓	✓
	EGSM 900MHz	✓	✓
	DCS1800MHz	✓	✓
	PCS1900MHz		✓
WCDMA	850MHz		✓
	900MHz	✓	
	1900MHz		✓
	2100MHz	✓	
HSPA	HSDPA (only SIM5216)	✓	✓
	HSUPA		

## Features

- Multi-modules support: SIM5216A/SIM5216E/SIM5216J
- Configurable pins for UART communication
- With the MIC and earphone interface
- Control via AT commands
- RTC supported with Super Capacitor
- Optimization of the power supply circuit
- Operation temperature: -40°C ~ +85°C

## Specifications

PCB size	91.93mmX57.15mm X 1.6mm
Indicators	PWR,5V,2.8V, Status
Power supply	5V support by Arduino
Communication Protocol	UART
Baud Rate	115200

## Electrical Characteristics

Specification	Min	Type	Max	Unit
Power Voltage	4.5	5	5.5	VDC
Input Voltage VH (5V):	2.3	5	5.5	V
Input Voltage VL (5V):	-0.3	0	1	V
Current Consumption	-	-	300	mA

# Hardware

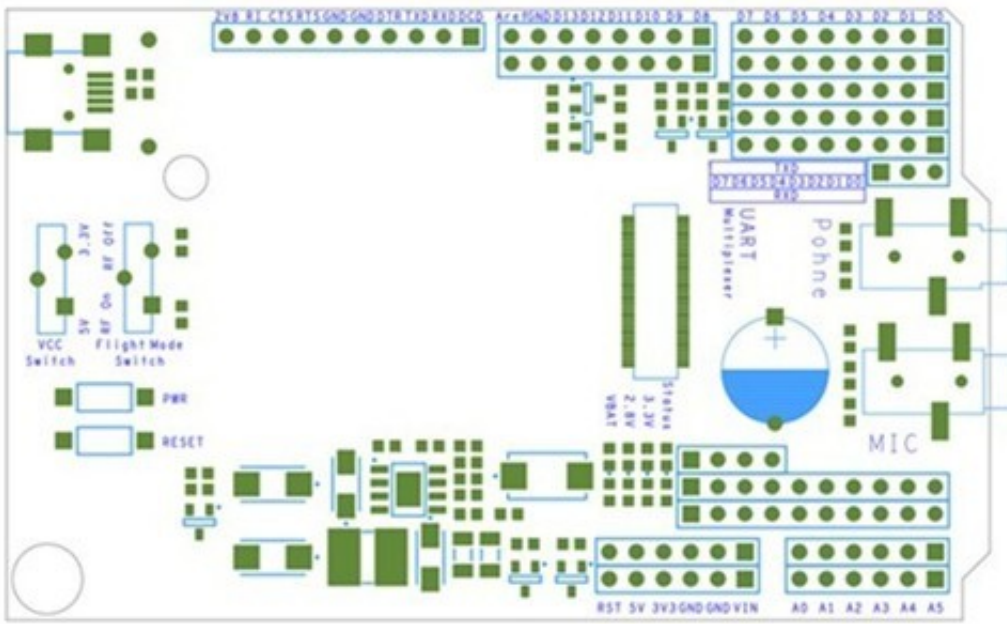


Figure 1 Top Map

Pin Map

Arduino PIN	Description
D0	-
D1	-
D2	-
D3	-
D4	-
D5	-
D6	-
D7	-
D8	POWER (High Active)
D9	Reset (High Active)
D10	-
D11	-
D12	-
D13	-
A0	-
A1	-
A2	-
A3	-
A4	-
A5	-

## Installation

### (1) UART Multiplexer

The UART multiplexer can assign Tx / Rx of SIM5216E to D0 ~D7.

*Note: Don't assign TX/RX of SIM5216E to the same digital pin at the same time.*

### (2) Operation Level Setting Switch

When install 3G shield to Arduino, please check the operation voltage level of development board. If the voltage is 3.3V (Leaf maple), set the Operation Level Setting switch to 3.3V. If the voltage is 5V (Arduino), set the Operation Level Setting switch to 5V.

### (3) Indicator Description

- PWR: When the board is connected to the power, the power

indicator light is on.

- 2.8V: The 2.8 V power is properly if the indicator light is on.
- 3.3V: The 3.3 V power is properly if the indicator light is on.
- Status: The indicator light has four statuses. As shown below:

LED Status	Module Status
Always On	Searching Network/Call Connect
200ms ON, 200ms OFF	Data Transmit
800ms ON, 800ms OFF	Registered network
Off	Power off/ Sleep

## Download

Datasheet for ITEAD 3G Shield

([ftp://imall.iteadstudio.com/Shield/IM121026002/DS\\_IM121026002\\_3G\\_Shield.pdf](ftp://imall.iteadstudio.com/Shield/IM121026002/DS_IM121026002_3G_Shield.pdf))

Schematic for ITEAD 3G Shield

([ftp://imall.iteadstudio.com/Shield/IM121026002/SCH\\_IM121026002\\_3G\\_Shield.pdf](ftp://imall.iteadstudio.com/Shield/IM121026002/SCH_IM121026002_3G_Shield.pdf))

Demo Code for ITEAD 3G Shield

([ftp://imall.iteadstudio.com/Shield/IM121026002/DC\\_IM121026002\\_3G\\_Shield.zip](ftp://imall.iteadstudio.com/Shield/IM121026002/DC_IM121026002_3G_Shield.zip))

## Useful Links

Obtenido de [http://wiki.iteadstudio.com/index.php?title=ITEAD\\_3G\\_Shield&oldid=1700](http://wiki.iteadstudio.com/index.php?title=ITEAD_3G_Shield&oldid=1700)»

- 
- Esta página fue modificada por última vez el 11 jun 2014, a las 06:20.
  - Esta página se ha visitado 70 veces.