

Arduino GPS Shield

-A high performance GPS shield for Arduino

Overview



Arduino GPS shield is a GPS module breadout board designed for Global Positioning System receiver with SD interface. It is easy to use for recording the position data into SD card. 5V/3.3V compatible operation voltage level make it compatible with Arduino boards, leaf maple, IFlat32 and other arduino compatible boards.

Features

- With Micro SD interface
- Active antenna design with high receive sensitivity, compatible normal antenna
- Extremely fast time to first fix at low signal level
- UART interface
- Operation temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Specifications

PCB size	55.88mm X 54.1mm X 1.6mm
Indicators	PWR,
Power supply	compatible with Arduino
Communication Protocol	UART
RoHS	Yes

Electrical Characteristics

Specification	Min	Type	Max	Unit
Power Voltage	4.5	5	5.5	VDC
Input Voltage VH:	3	-	5.5	V
Input Voltage VL:	-0.3	0	0.5	V
Baud rate		38400		bps

Hardware

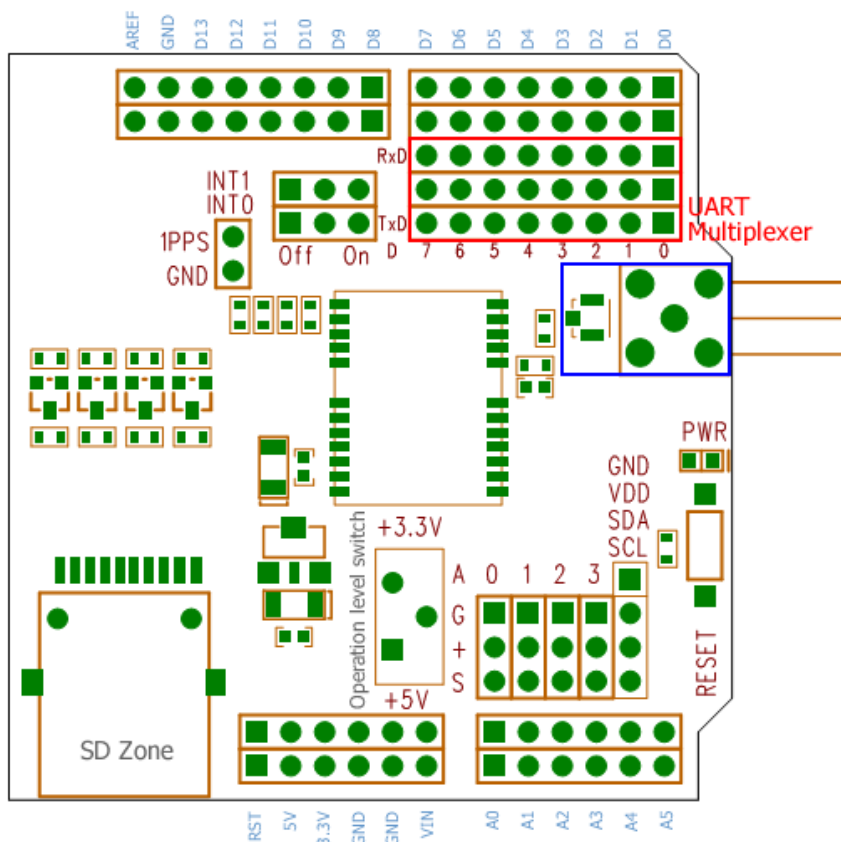


Figure 1 Top Map

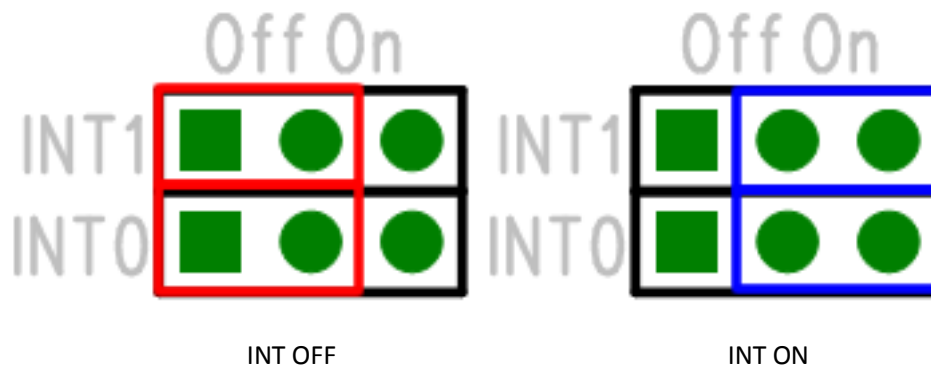
Arduino PIN	Description
D0	Data
D1	Din
D2	-
D3	-
D4	-
D5	-
D6	-
D7	-
D8	-
D9	-
D10	CSN
D11	MOSI
D12	MISO
D13	SCK
A0	Breakout
A1	Breakout
A2	Breakout
A3	Breakout
A4	IIC_SDA
A5	IIC_SCL

Installation

When install GPS shield to Arduino, please check the operation voltage level of development board. If the voltage is 3.3V (IFLAT32,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.

Interrupt Set

The INT0 is the broke out of the external interrupt pin of GPS module, if not use, please set the jumper to OFF as the following figure. The INT1 is the broke out of the 1PPS output. When the GPS module has tracked to the GPS satellite, this pin will send a pulse per second.



Revision History

Rev.	Description	Release date
v1.0	Initial version	2012-04-07
v1.1	Update for GPS shield v1.1	2012-05-16