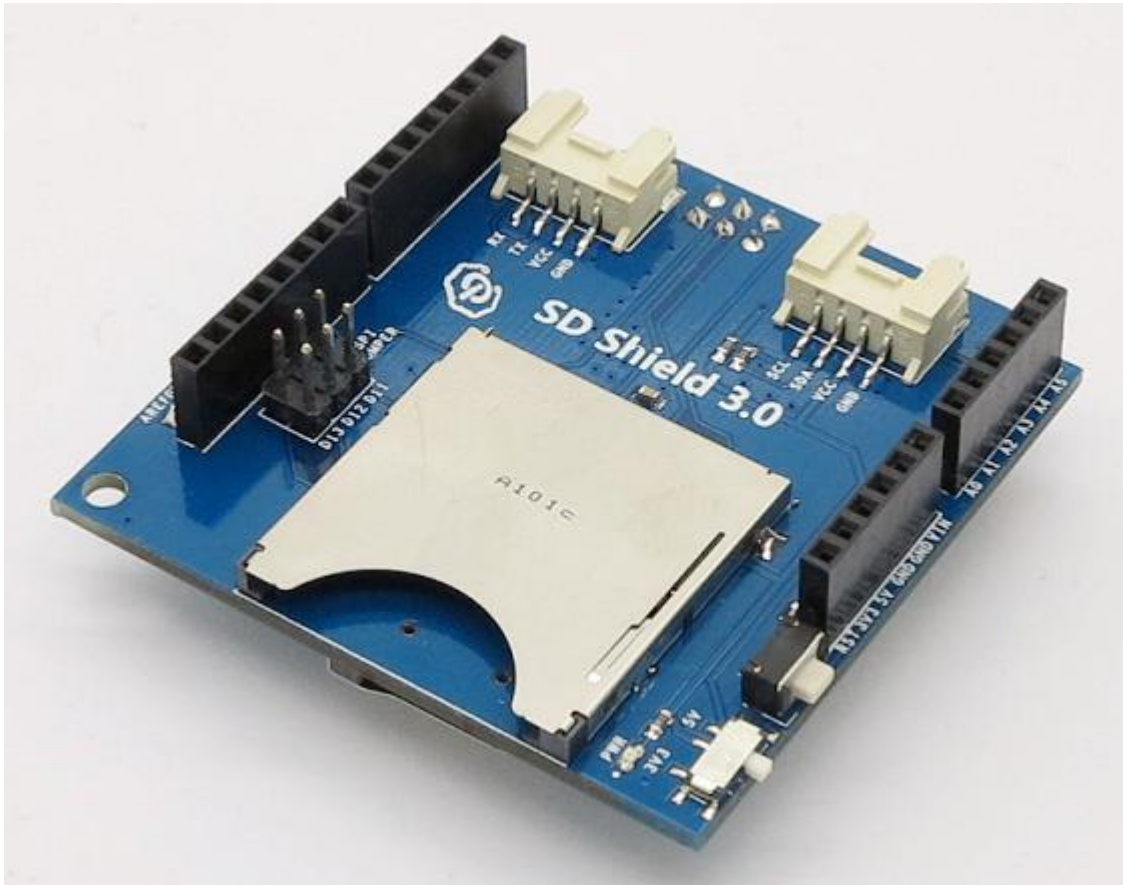ITEAD STUDIO
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SD Shield 3.0

Overview

SD Shield 3.0 is a break out board for standard SD and TF card. It is compatible with 5V and 3.3V Arduino mainboards, Arduino-compatible boards and Arduino mainboards that SPI is on ICSP instead on pin D11~13 such as Leonardo.

Features

- Arduino compatible
- Supports both SD card and TF card
- Stackable
- Compatible with 5V and 3.3V Arduino mainboards

Specifications

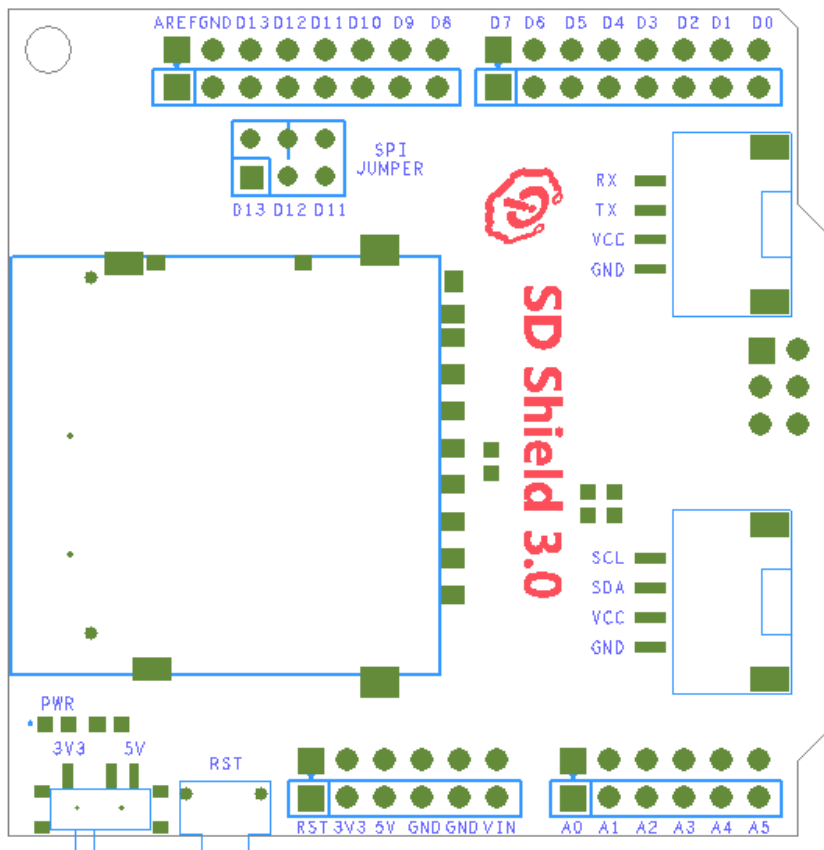| PCB size	56.15mm X56.23mm X 1.6mm
Operating voltage	3.3V/5V DC

Indicator	PWR
Communication interface	UART，IIC，SPI
Electronic brick interface	Grove 4pin

Electrical characteristics

Parameter	Min.	Typical	Max.	Unit
Supply voltage	3	-	5.5	VDC
Operating level	-	3.3/5	-	V
Consumption current	-	-	100	mA

Hardware

Pinmap

Index	Pin of Arduino	Pin of SD Shield
1	VCC	5V/3V3
2	GND	GND
3	D13/ICSP_SCK	SD_SCK
4	D12/ICSP_MISO	SD_OUT
5	D11/ICSP_MOSI	SD_IN
6	D4	SD_CS
7	D0	RX
8	D1	TX
9	A4	SDA
10	A5	SCL

Compatibility

SD Shield can be compatible with many Arduino mainboards and Arduino-derivative boards working under 3V3 or 5V level. When it works with boards of 3V3 logic level, the level switch needs to be slide to 5V. When it works with boards of 3V3 logic level, the level switch needs to be slide to 3V3. For some of the Arduino boards, SPI is on ICSP and D11 ~ D13, while for some main boards, D11 D12 / D13 are not defined as SPI. In order to improve the compatibility, we design an SPI JUMPER to make it compatible with mainboards of the two different types. For details, please find the table below.

Index	Arduino Board	Operation Voltage Switch	SPI JUMPER
1	Arduino UNO	5V	Don't care
2	Arduino Leonardo	5V	Disconnected
3	Arduino MEGA	5V	Disconnected
4	Arduino DUE	3.3V	Disconnected
5	Iteaduino UNO	5V/3.3V	Don't care
6	Iteaduino Leonardo	5V/3.3V	Disconnected
7	Iteaduino MEGA 2560	5V/3.3V	Connected
8	Iteaduino DUE	3.3V	Disconnected
9	Iteaduino BT	5V/3.3V	Don't care
10	Iteaduino ADK	5V	Disconnected
11	ChipKit UNO32	3.3V	Don't care
12	ChipKit MAX32	3.3V	Disconnected

Revision record

Version	Description	Written by	Date

SD Shield 3.0   iteadstudio.com   2014-6-18

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V3.0	Initial version	Stan Lee	18th, June, 2014