

USB Host shield

Overview



The USB Host Shield contains all of the digital logic and analog circuit necessary to implement a full-speed USB peripheral/host controller with Arduino. This shield adds USB Host capabilities to popular Arduino platform. C Software support for new devices is constantly added; at the moment, code for USB keyboard and PS3 controller are ready with Bluetooth and digital cameras in the works.

Features

- USB 2.0 Full Speed compatible
- 3.3/5V operation level compatible
- All GPIOx pins break-out
- USB Host 5V/500mA supply for USB protocol

Specifications

| PCB size | 56mm X 54mm X 1.6mm |
|------------|---------------------|
| Indicators | PWR |
| RoSH | Yes |



Electrical Characteristics

| Specification | Min | Type | Max | Unit |
|------------------------|-----------|------|-----------|------|
| Power Voltage (Vlogic) | 3.0 | 1 | 5.5 | VDC |
| Input Voltage VH: | 0.7Vlogic | 1 | _ | V |
| Input Voltage VL: | _ | 1 | 0.3Vlogic | V |
| Current Consumption | - | - | 70 | mA |

Hardware

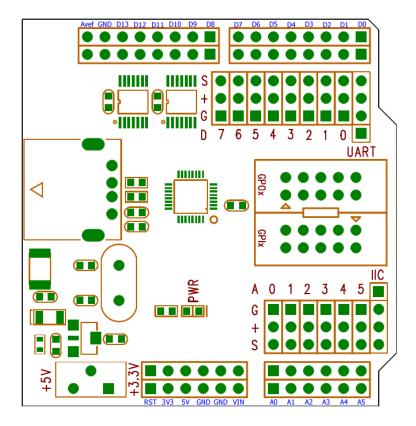


Figure 1 Top Map

Arduino Socket defination:

| Pin | Description |
|-----|-------------|
| D0 | UART_Rx |
| D1 | UART_Tx |
| D2 | - |
| D3 | - |
| D4 | - |
| D5 | - |
| D6 | - |

| D7 | - |
|-----|----------|
| D8 | - |
| D9 | - |
| D10 | SPI-CSn |
| D11 | SPI-MOSI |
| D12 | SPI-MISO |
| D13 | SPI-SCK |
| A0 | AD0 |
| A1 | AD1 |
| A2 | AD2 |
| А3 | AD3 |
| A4 | IIC_SCL |
| A5 | IIC_SDA |

GPIOx Break-out detail

As the figure 2 shown, all the GPIOx are all breakout.

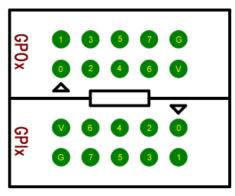


Figure 2 GPIOx pins map

3.3/5V Operation Switch

When the based board is run in 3.3V, the switch should be set to 3.3V. And when the based board is run in 5V, the switch should be set to 5V.

Revision History

| Rev. | Description | Release date |
|------|-----------------|--------------|
| v1.0 | Initial version | 2012-05-15 |