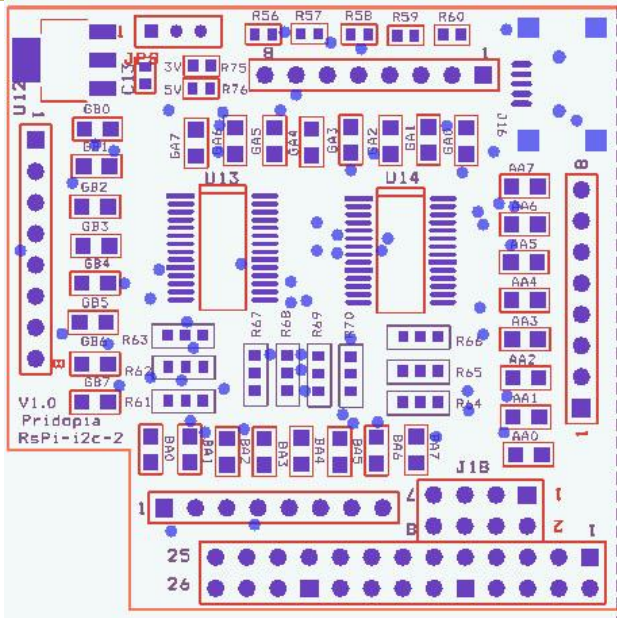
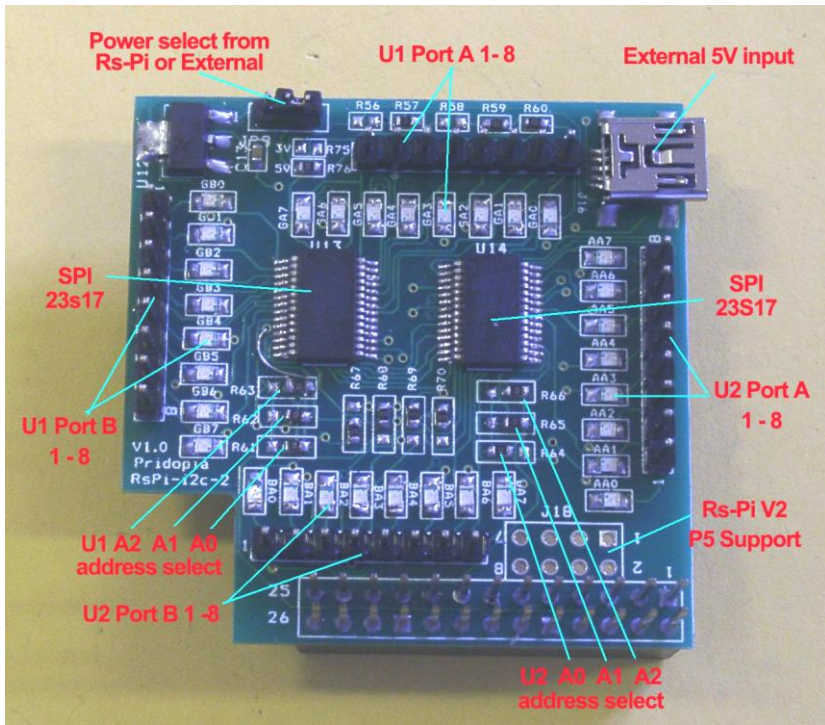


Rs-Pi-23s17-2 SPI User Manual



1. J16 Mini USB 5V input
2. J18 Rs-Pi V2 GPIO output
3. JP5 GA0 ~ GA7 U13 Port A
4. JP2 AA0 ~ AA7 U13 Port B
5. JP7 BA0 ~ BA7 U14 Port A
6. JP6 GB0 ~ BG7 U14 Port B
7. R61,R62,R63 (for U13 Address select A0,A1,A2)
8. R64,R65,R66 (for U14 Address select A0,A1,A2)
8. U13 (21) 23s17 -1 Port A,B
9. U14 (22) 23s17-2 Port A,B
10. JP8 jumper select use external 5V from Mini USB connect(J16) or internal 5V from Rs-Pi

Install python and run the test program

Download test program on our web site 23s17-cs0.py

<http://www.pridopia.co.uk/pi-23s17-2-lp.html>

- ```
sudo apt-get install python-dev
wget http://www.pridopia.co.uk/pi-pgm/RPi.GPIO-0.4.1a.tar.gz

gunzip RPi.GPIO-0.4.1a.tar.gz

tar -xvf RPi.GPIO-0-4-1a.tar

cd RPi.GPIO-0-4-1a

sudo python setup.py install

sudo python 23s17-cs0.py
```

Install piface software test U1 (address 000) I/O

Detail information <http://piface.openlx.org.uk/174770794>

Java program information

<http://www.savagehomeautomation.com/projects/raspberry-pi-programming-pi-face-with-java-pi4j.html>

### Always enabling SPI

To always enable the SPI driver:

- After logging in, edit /etc/modprobe.d/raspi-blacklist.conf  

```
sudo nano etc/modprobe.d/raspi-blacklist.conf
```
- Insert a # at the start of the line containing blacklist spi-bcm2708  

```
#blacklist spi-bcm2708
```

To install and setup the software, ensure your Pi can access the Internet and type:

```
sudo apt-get update

sudo apt-get install -y python-dev python-gtk2-dev git
pushd ~/
git clone https://github.com/thomasmacpherson/piface.git
pushd piface/python
sudo python setup.py install
popd
sudo piface/scripts/spidev-setup
popd
```

The software will complete installing in a few minutes.

Reboot your Pi by typing:

```
sudo reboot
```

### Testing

After installing the software and restarting, login and startx.

Start the PiFace emulator by typing in a terminal:

```
piface/scripts/piface-emulator
```

A0, A1, A2 address \* right side GND low - 0 \* left side Vcc High - 1

