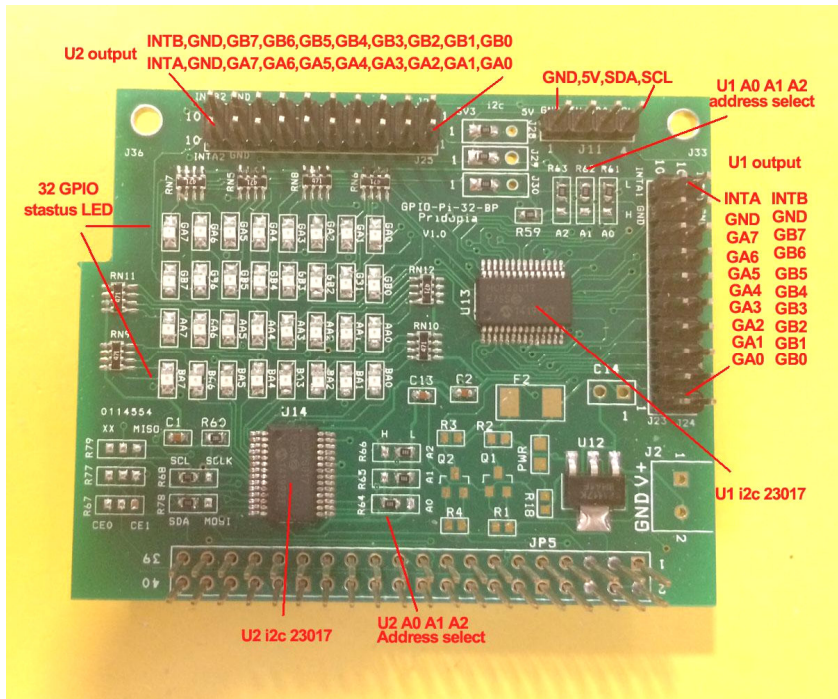


Rs-Pi-23s17-2 V1.0 SPI User Manual



1. J23 GA0 ~ GA7,GND,INTA U13 Port A
2. J24 AA0 ~ AA7, GND,INTB U13 Port B
3. J25 BA0 ~ BA7,GND,INTA U14 Port A
4. J26 GB0 ~ BG7,GND,INTB U14 Port B
5. R61,R62,R63 (for U13 Address select A0,A1,A2)
6. R64,R65,R66 (for U14 Address select A0,A1,A2)
7. U13 23s17 -1 Port A,B
8. U14 23s17-2 Port A,B

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
```

Download test program from our web site n23s17-cs0.py

New test program 23s17-2port-v3.py

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

<https://pypi.python.org/pypi/RPi.GPIO> GPIO library

GPIO library - RPi.GPIO-0.5.3a.tar.gz

Install python , library and run the test program

```
# sudo apt-get install python-dev
```

```
# wget http://www.pridopia.co.uk/pi-pgm/RPi.GPIO-0.5.3a.tar.gz
```

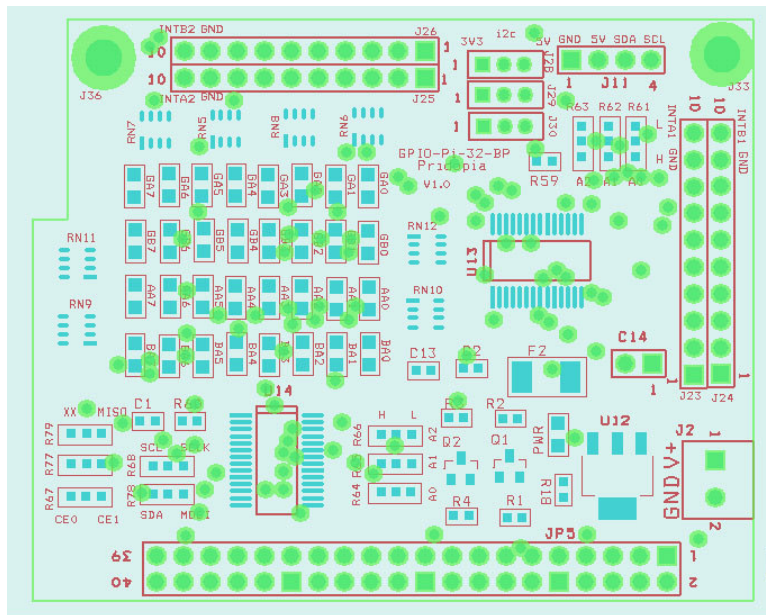
```
# gunzip RPi.GPIO-0.5.3a.tar.gz
```

```
# tar -xvf RPi.GPIO-0.5.3a.tar
```

```
# cd RPi.GPIO-0.5.3a
```

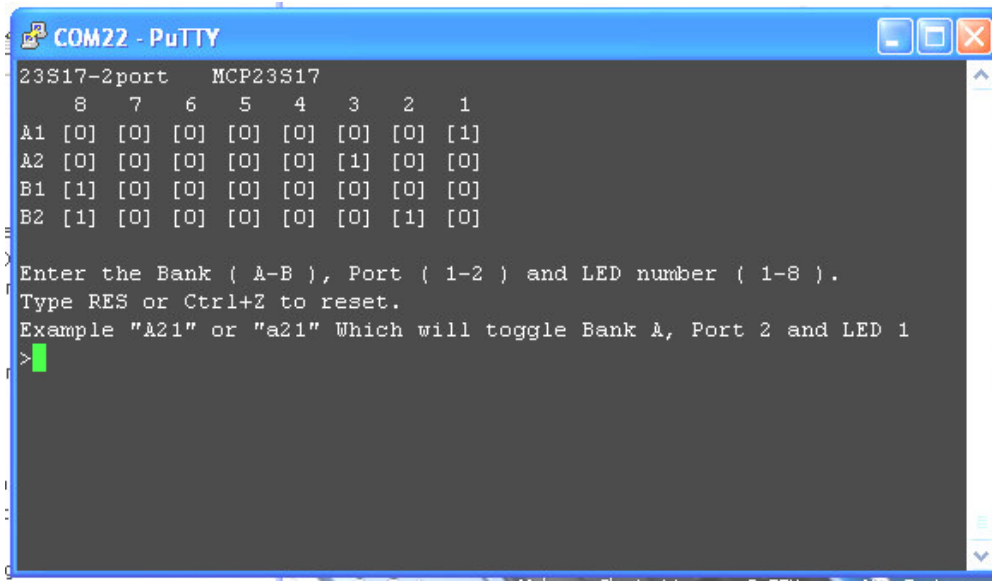
```
# sudo python setup.py install
```

```
# sudo python 23s17-2port-v3.py
```



Download test program on our web site Python

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



our new output test program 23s17-2port-s-v103.py display all 32 GPIO status

New Pridopia scratch interface software you can download from our web site

<http://www.pridopia.co.uk/rs-pi-set-scratch.html>

U1 to U2 spi 23s17 address 40,42

40 --> 1 42 --> 2 44 --> 3 46 --> 44

48 --> 5 4a --> 6 4c --> 7 4e --> 8

Command "sp"+ "address(1-8)" + "a" +"bit(1 to 8)" Port A

Command "sp"+ "address(1-8)" + "b" +"bit(1 to 8)" Port B

Command "bits"+"address(1-8)" + "a" +"bit(8 to 1)"Port A

Command "bits"+"address(1-8)" + "b" +"bit(8 to 1)"Port B

sp2b7 --> spi address 2 Port B bit 7 ON/OFF

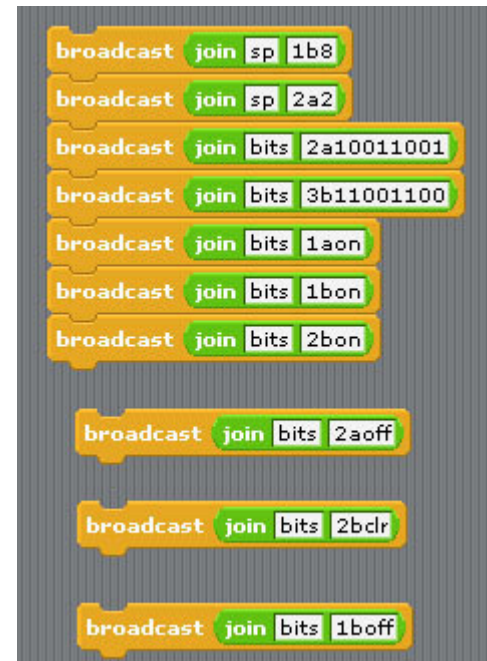
sp3b4 --> spi address 3 Port B bit 4 ON/OFF

bits2b01010101 --> address 2 port B from bit 8 to 11
output --> 01010101

bits2a01010101 --> address 2 port A from bit 8 to 1
output --> 01010101

bits2aoff --> address 2 Port A all OFF/clear

bits2aclr --> address 2 Port A all OFF/clear



For Raspberry Pi 3B new image

```
git clone http://github.com/lthiery/SPI-Py
```

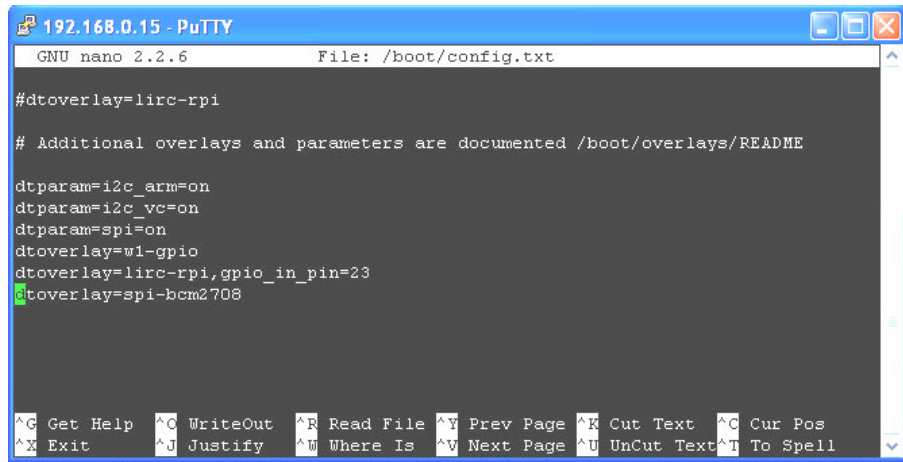
```
cd SPI-Py
```

```
python setup.py install
```

```
sudo nano /boot/config.txt
```

```
add dtoverlay=spi-bcm2708
```

Reboot and it should be working.



```
192.168.0.15 - PuTTY
GNU nano 2.2.6 File: /boot/config.txt

#dtoverlay=lirc-rpi
# Additional overlays and parameters are documented /boot/overlays/README

dtparam=i2c_arm=on
dtparam=i2c_vc=on
dtparam=spi=on
dtoverlay=w1-gpio
dtoverlay=lirc-rpi,gpio_in_pin=23
dtoverlay=spi-bcm2708

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```