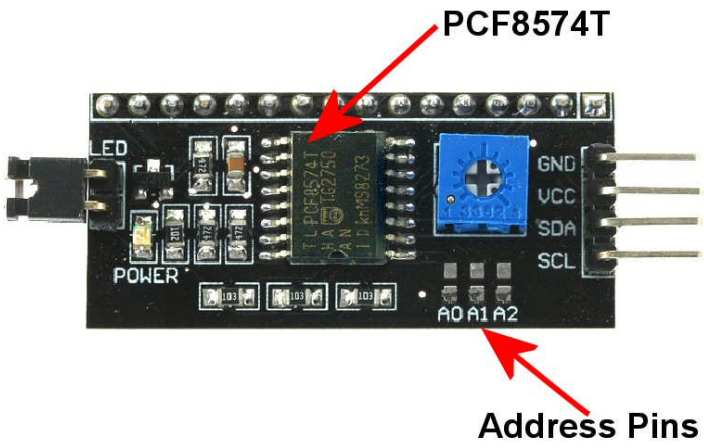
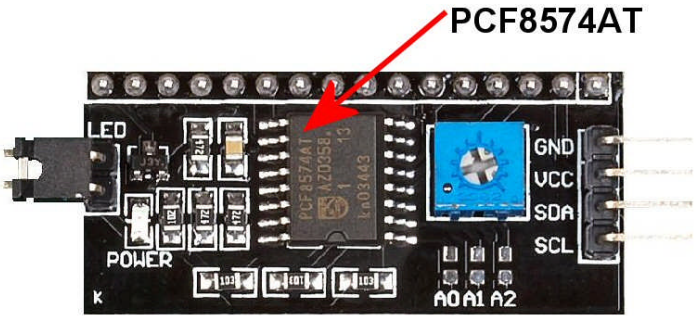
SCULLCOM HOBBY ELECTRONICS

I²C Interface Module for LCD Displays

There are various versions of these interface modules. First look at the markings on the IC.



PCF8574			hexadecimal address
A2	A1	A0	
0	0	0	20h
0	0	1	21h
0	1	0	22h
0	1	1	23h
1	0	0	24h
1	0	1	25h
1	1	0	26h
1	1	1	27h



PCF8574A			hexadecimal address
A2	A1	A0	
0	0	0	38h
0	0	1	39h
0	1	0	3Ah
0	1	1	3Bh
1	0	0	3Ch
1	0	1	3Dh
1	1	0	3Eh
1	1	1	3Fh

It will be either a PCF8574T or a PCF8574AT. Note the difference is indicated by the letter ‘A’. The hexadecimal addresses are different for both types as show in the tables opposite.
Normally the address links A0, A1 and A2 are left open, indicating that these address pins are left HIGH at logic 111. If any of the links are connected then that address pin is taken LOW, logic level 0.

If all the links are left open as seen in the images then the address for a module using the PCF8574T chip is hexadecimal 27h (in Arduino code that would be normally written as 0x27). With modules using the PCF8574AT chip the address will all links open would be hexadecimal 3Fh (in Arduino code that would be normally written as 0x3F).

Example Arduino code lines to look for I2C LCD (address highlighted in RED):

```
LiquidCrystal_I2C lcd(0x27,2,1,0,4,5,6,7);    //0x27 is the default address of the LCD with I2C bus module
```

In this example an module using the PCF8574T chip is used. For a module which uses a PCF8574AT the the code should be change to read the following:

```
LiquidCrystal_I2C lcd(0x3F,2,1,0,4,5,6,7);    //0x3F is the default address of the LCD with I2C bus module
```

Other addresses can be used by different A0, A1 and A2 link combinations.