Az-Delivery

Ihr Experte für Mikroelektronik!

Serielle Schnittstelle I2C für LCD Displays Datenblatt
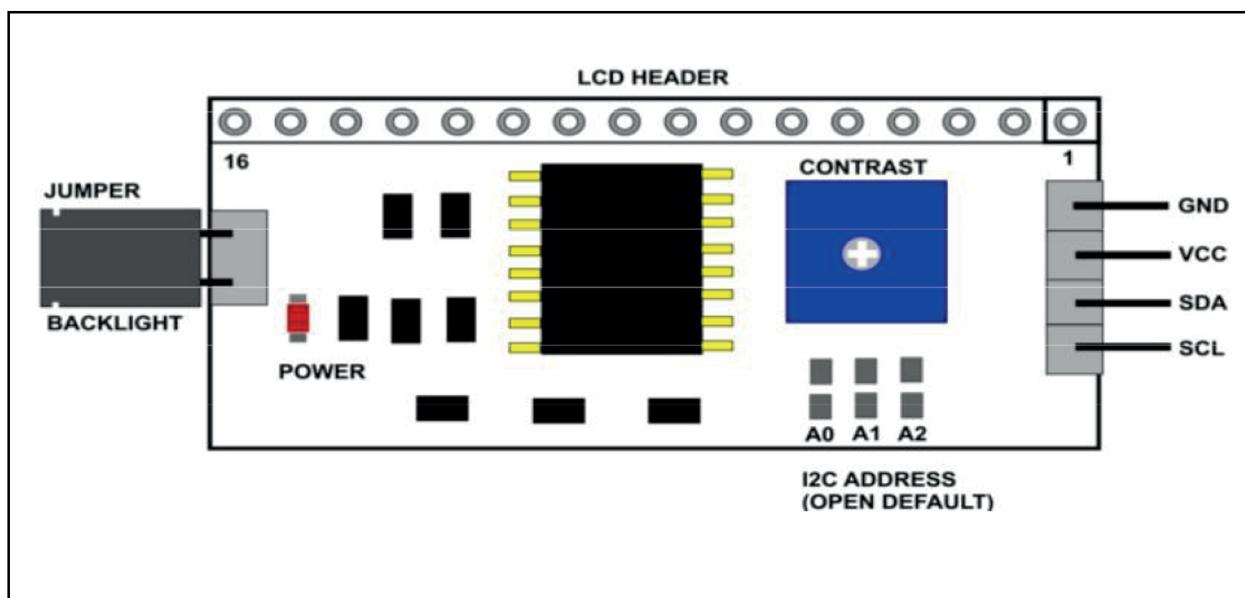
Contents:

1. Specification

Compatible with 16x2 and 20x4 LCD's
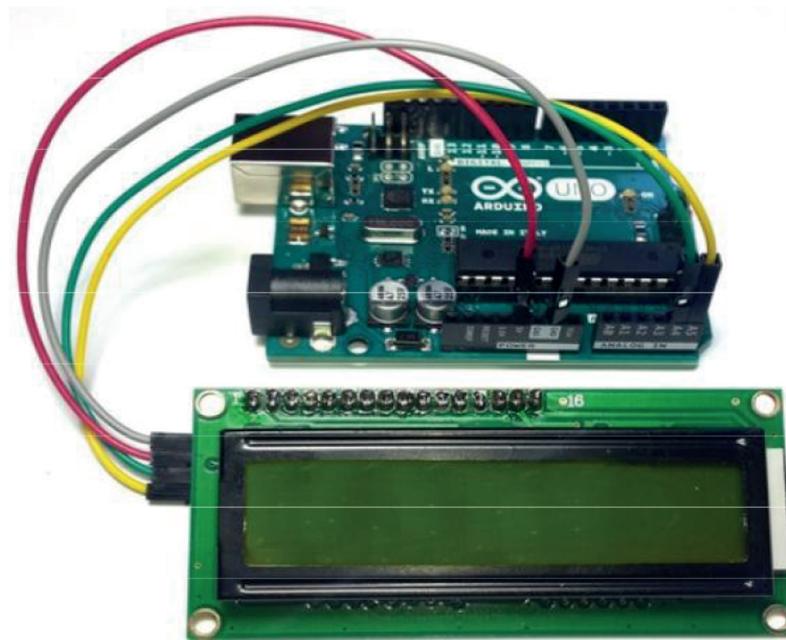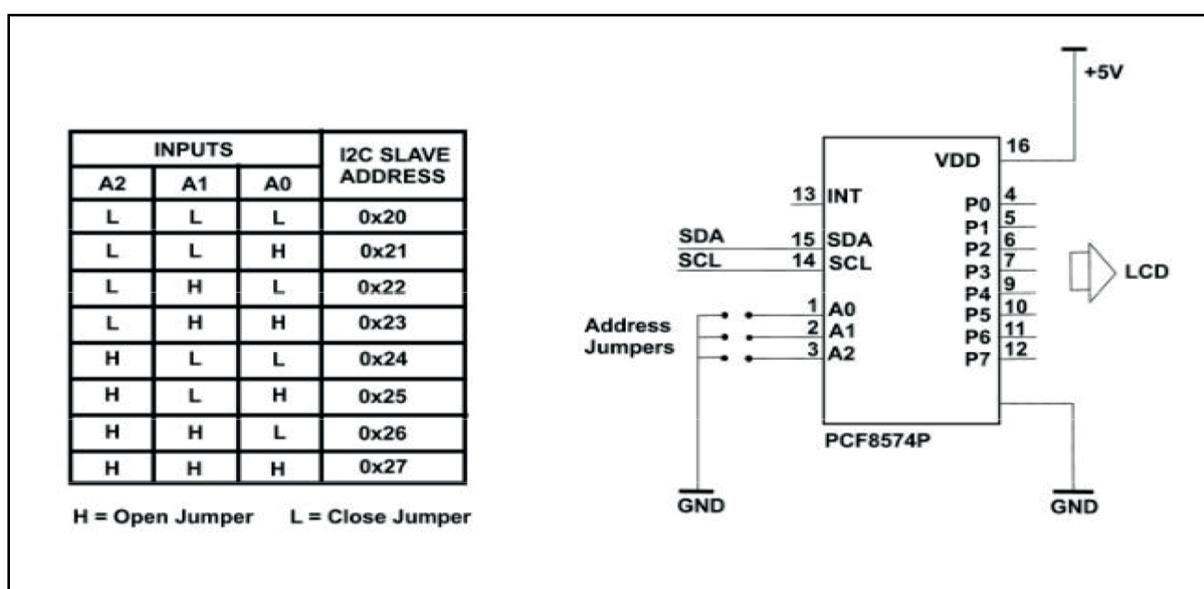Default I2C Address = 0X27
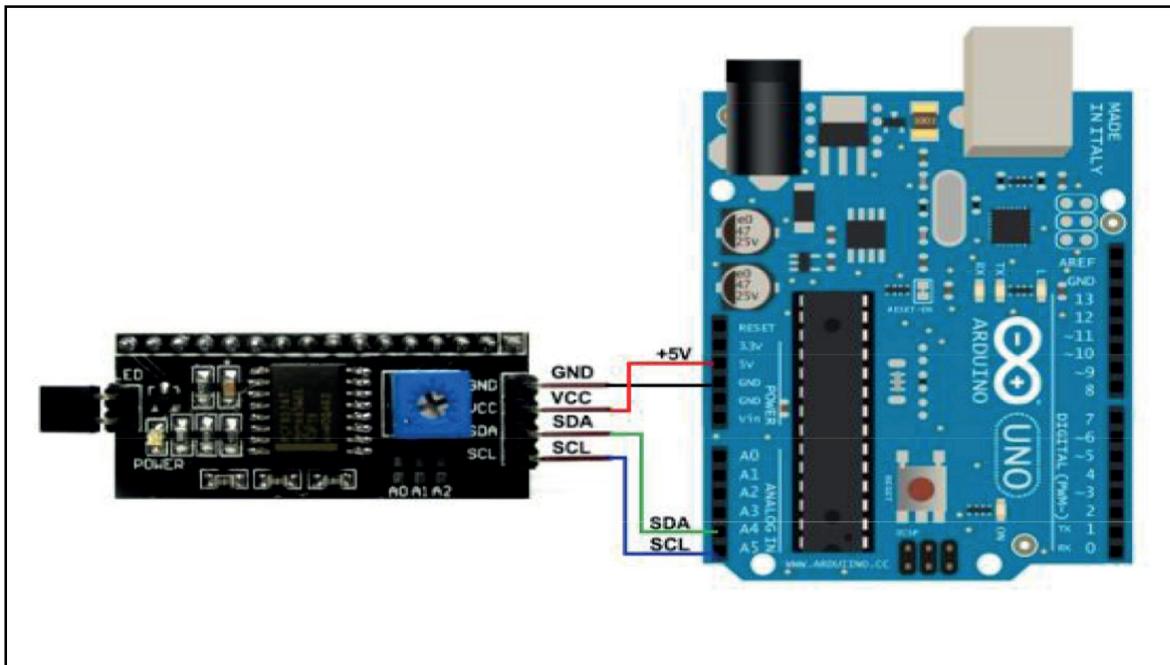Address selectable - Range 0x20 to 0x27

2. Board Layout

3. I2C Address Setup

The LCD2004 board utilized the PCF8574 I/O expander. This nifty little chip provides eight bits of parallel I/O addressable by a I2C bus address – 0x00 to 0x27. SainSmart tied all address leads to Vcc, so the LCD2004 board's I2C address is permanently fixed at hex 27. This is rather limiting since no additional LCD2004s can be added to the bus.

Anyway, you simply address the board and write an eight bit value which is then presented on the output pins of the PCF8574, which, in this case, are connected to the HD44780 based LCD screen.

INPUTS			I2C SLAVE ADDRESS
A2	A1	A0	
L	L	L	0x20
L	L	H	0x21
L	H	L	0x22
L	H	H	0x23
H	L	L	0x24
H	L	H	0x25
H	H	L	0x26
H	H	H	0x27

H = Open Jumper   L = Close Jumper

```
//Arduino Code
#include <Wire.h>
#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27,2,1,0,4,5,6,7,3, POSITIVE); // Initialize LCD Display at address 0x27
                                                        // unmodified backpack
void setup() {
  // activate LCD module
  lcd.begin (16,2); // for 16 x 2 LCD module
  lcd.setBacklightPin(3,POSITIVE);
  lcd.setBacklight(HIGH);
  }

void loop() {
  lcd.home (); // set cursor to 0,0
  lcd.print(" Hello, world!");
  lcd.setCursor (0,1);        // go to start of 2nd line
  lcd.print(millis());
  delay(1000);
  lcd.setBacklight(LOW);      // Backlight off
  delay(500);
  lcd.setBacklight(HIGH);     // Backlight on

  delay(1000);
}       // END
```