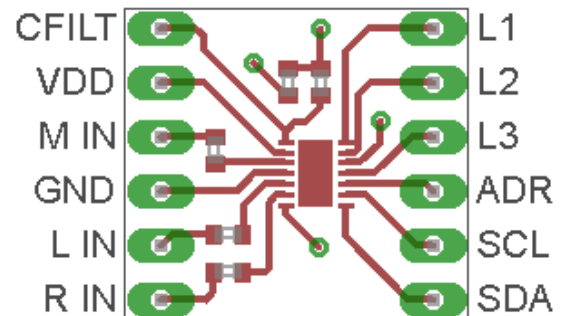


### Features

- \* Audio Synchronized color LED driver
- \* Mono or Stereo line signal input
- \* PWM output high, mid, low band intensity
- \* Programmable via I2C interface
- \* Set drive current, frequency, high pass filter, gain.
- \* User defined color options
- \* 5V Supply

### OVERVIEW

This tiny chip has a lot going on. Essentially, it is a 3 channel light organ. Either a mono or stereo audio line signal input is split into low, mid, and high bandwidths. The amplitude (volume) of each band signal determines the PWM wave form of the LED output. Wait, there's more! You have control over the audio gain, LED drive current, high pass filter, PWM frequency by programming options registers via I2C protocol. You can even bypass the audio input, and select from different colors to output on the LED. By adjusting the Pattern and Current select registers, you have the ability to output a wide range of colors!



**NOTE:** There is an error on the datasheet (I know!). It's a big mistake, so pay attention. The error is in the Pattern Select Register, and the mistake makes for confusion between the Pattern Select and Gain Select registers:

#### PATTERN SELECT CONTROL REGISTER

<b>WRONG</b>	1	1	1	PS4	PS3	PS2	PS1	PS0
CORRECT	0	1	1	PS4	PS3	PS2	PS1	PS0

See [www.rachelselectronics.com](http://www.rachelselectronics.com) for the LM4970 datasheet, circuit schematic, sample code and further documentation.