

Additional pin functions:
<https://pinout.xyz/>

Sheet: /
File: S-PCBASSY-001-01.kicad_sch

Title:

Size: A4
KiCad E.D.A. 9.0.7

Date: 15 nov 2012

Rev:
Id: 1/4

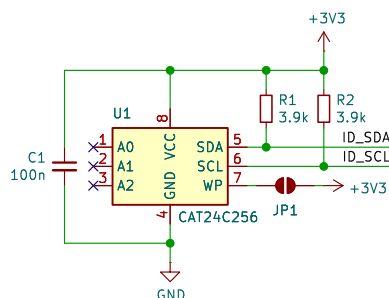
EEPROM: Use the AT24C32 symbol. Connect SDA to ID_SD (Pin 27) and SCL to ID_SC (Pin 28).

ID_SD and ID_SC PINS:
These pins are reserved for HAT ID EEPROM.

At boot time this I2C interface will be interrogated to look for an EEPROM that identifies the attached board and allows automatic setup of the GPIOs (and optionally, Linux drivers).

Bridging JP1 enables write protection.

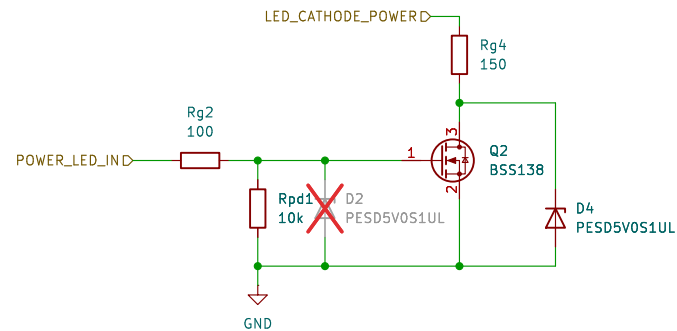
DO NOT USE these pins for anything other than attaching an I2C ID EEPROM. Leave unconnected if ID EEPROM not required.



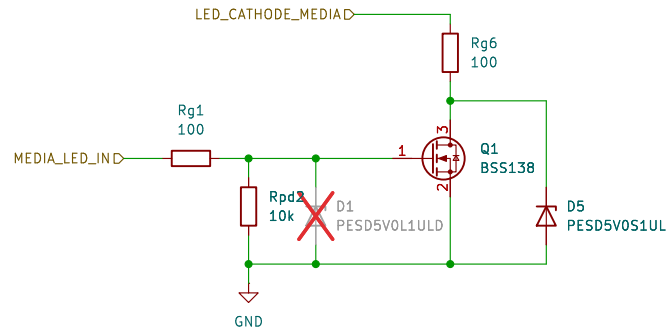
Pinout diagram for the J1 GPIO header. The header has 40 pins, numbered 1 to 40. Pins 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, and 39 are connected to GND. Pins 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, and 40 are connected to +5V. The diagram shows various peripheral connections to specific pins:

- GPIO2/SDA1 to pin 1
- GPIO3/SCL1 to pin 3
- GPIO4/GPCLK0 to pin 5
- POWER_LED_RPiD to pin 11
- MEDIA_LED_RPiD to pin 13
- ERROR_RPiD to pin 15
- GPIO10/SPI0.MOSI to pin 19
- GPIO9/SPI0.MISO to pin 21
- GPIO11/SPI0.SCLK to pin 23
- ID_SDA to pin 27
- GPIO5 to pin 29
- GPIO6 to pin 31
- GPIO13/PWM1 to pin 33
- GPIO19/PCM.FS to pin 35
- GPIO26 to pin 37
- GPIO14/TXD0 to pin 8
- GPIO15/RXD0 to pin 10
- GPIO18/PCM.CLK to pin 12
- GPIO23 to pin 16
- GPIO24 to pin 18
- GPIO25 to pin 22
- GPIO8/SPI0.CE0 to pin 24
- GPIO7/SPI0.CE1 to pin 26
- ID_SCL to pin 28
- GPIO12/PWM0 to pin 32
- GPIO16 to pin 36
- GPIO20/PCM.DIN to pin 38
- GPIO21/PCM.DOUT to pin 40

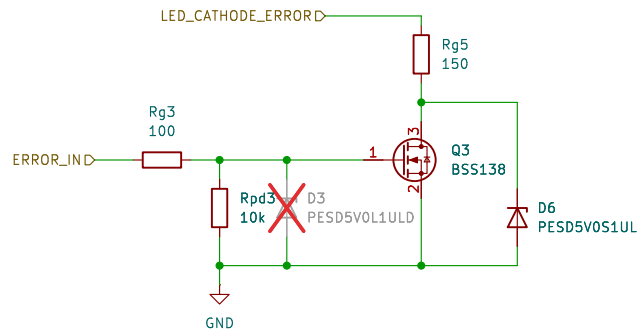
Blue LED Driver



Green LED Driver



RED LED Driver



Notes

Current Limiter (Rlimit): Calculated for 5V.
Formula: $R = (V_{cc} - V_f) / I_f$
For a standard Green LED (2.1Vf, 20mA): 150Ω

<https://ams-osram.com/products/leds/multi-color-leds/osram-displix-p3333-krtblsps1-32>

LED Color	Typical Vf	Calculation	Calculated R	Standard Resistor
RED (Error)	2.0V	$(5 - 2.0) / 0.02$	150Ω	150Ω
GREEN (Media)	2.1V	$(5 - 2.1) / 0.02$	145Ω	150Ω
BLUE (Power)	3.2V	$(5 - 3.2) / 0.02$	90Ω	91Ω or 100Ω

Sheet: /LED_Driver_Array/
File: Connectors.kicad_sch

Title:

Size: A4

Date:

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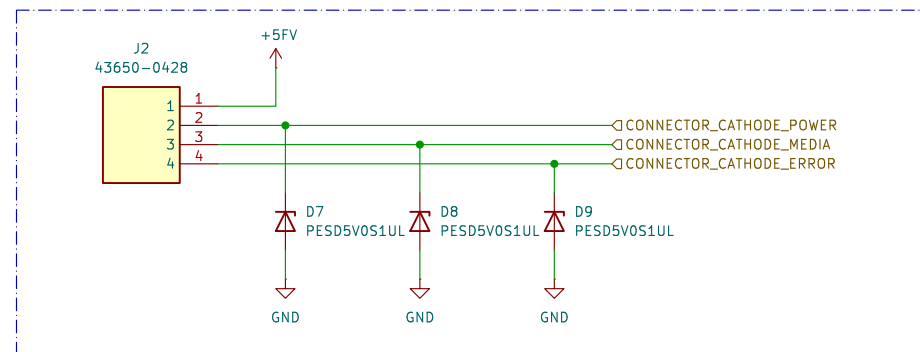
Id: 3/4

Notes

Micro-Fit 3.0 (4x1)

Aussming its Connected to a RGB LED
other wise the connector should be
replace with 1*6 or 2*3 connector

RGB Molex Connector



Sheet: /External_Connector/
File: LED.kicad_sch

Title:

Size: A4

Date:

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