Alternative Isolated Supply Parts:
CUI: PD030-Q24-S5-D Digitkey: 102-3892-ND 5V ⊚ 6 Amps \$34.98
GE: EHHD015A0A Digitkey: 555-1266-ND 5V ⊚ 15 Amps \$29.77
GE: SHHD013A0A Digitkey: 555-1312-ND 5V ⊚ 3Amps \$18.73 Isolated +5V @ 6 Amps PDQ30-Q24-S5-D PowerBoost 1000 U7 LT1129CST-3.3 +3.3VA 5Vout U1 SHELD.2 CONN 01X0 +24V + C9 2 GND Vin+ | Vout+ 3 S S + C25 3 LowBattery 710uF ᆲᄷ 4 GND Vin-Trim C12 _______EN 0.1uF 0.1uF GND Sheet: IDEAL_DIODE_2 220uF On_Off | Vout-GNDGND 24V Rts _6__Vsh DANODE CATHODED GND 7 LiPo File: IDEAL DIODE.sch C22 8 USB5V GND 114 + C5 Sheet: IDEAL_DIODE_1 DANODE CATHODED File: IDEAL DIODE.sch - 51 GND GND 懿 GND SPI INTERFACE SCLK,MISO, MOSI, RESET 4 — CHIP SELECTS OR 8 GPIO Supply_monitor GND +3,37 +5V ↑ OR 4 INCREMENTAL ENCODERS C18 0.1u 0.1uF ADAFRIJIT TXB0104 0.1uF P10 2 3 6 4 5 6 Cs_8 7 6 8 Cs_b 9 9 10 Cs_c c 11 0 12 14 enable_battery GND GND miso GND 0.1uF 0.1uF 0.1uF GND Rpi_mosi Rpi_miso Rpi_sclk Rpi_ss GND GND sclk RESET GND U6 PSOC_5LP SDA 1 1 SCL 1 2 P2.1 led P2.2 sw1 VDD 52 PST | 50 P0.7 | 49 | Cs. a P0.6 | 48 | Cs. b P0.5 | 47 | Cs. C cap p0.4 | 46 | deligi_bypas's cap p0.3 | 44 | sar_l_bypas's P0.1 | 43 | miso P0.0 | L52 | GND 51 RST 50 CONN_01X04 ADAFRUIT_TXB0104 Rpi_mosi 4 Rpi_miso 5 Rpi_sclk 6 Rpi_ss 7 P2.6 ± 1000 SPI INTERFACE SCLK,MISO, MOSI, RESET 4 — CHIP SELECTS Vcca < Vccy BI-DIRECTIONAL LOGIC Y1 11 slush_inta Y2 10 slush_intb Y3 9 rpi_inta Y4 8 rpi_intb LEVEL SHIFTER C20 RPL SS / enable_battery enable_ls 9 Slush_intth 11 OR 8 GPIO P11 2 0.1uF + C6 0.1uF slush_intb 11 rpi_inta 12 rpi_intb 13 rpi_intb 13 rpi_intb 13 rpi_intb 13 P0.1 43 P0.0 42 P15.5 41 P15.3 39 P15.2 38 MISO_1GND MOSI_1 SCLK_1 RESET sclk sar_in4 rpi_intb 13 cs_1a 14 p12.2 cs_1b 15 cs_1c 16 p12.0 p1.0 sar.i 15.3 39 sar.in P15.2 39 sar.in P15.1 37 P15.0 35 sar.in P15.0 35 sar.in P15.0 35 sar.in P3.6 33 MISO.1 P3.6 33 MISO.1 P3.4 32 SCLK.1 P3.4 32 SCLK.2 P3.7 31 SDA.2 P3.7 32 Getta.sig.in P3.0 28 SCL.2 GND GND +3,3VA GND Vcca < Vccy SLUSH ENGINE CONNECTOR RASPBERRY PI CONNECTION | 17 | 91.0 | 18 | 91.1 | 19 | 91.2 | 20 | 91.3 | 19 | 91.2 | 19 | 91.2 | 19 | 91.2 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | 91.4 | 19 | VPP (5v) GPI02/12C1 SDA GPI02/12C1 SDA VPP_(5v) VPP_(5v) 5 GPI03/I2C1_5CL GPI03/I2C1_SCL + C13 C15 10uF 0.1uF VDD (3.3v) GPI014/UART_TXD GPI014/UART_TXD VDD (3.3v) 17 VDD_(3.3V) 10 GPI015/UART_RXD 17 GPI015/UART_RXD VDD_(3.3V) C21 + C1 0.1 uF 19 GPI010/SPLMOSI
21 GPI09/SPLMISO
23 GPI011/SPLSCLK
GPI08/SPLCE0
26 GPI07/SPLCE1 P12 1 2 3 4 5 6 7 8 9 10 GPI010/SPI_M0SI 0.1uF 6 GND 9 GND 14 GND 20 GND 30 GND 30 GND 34 GND GND GND GND GND GND GPI01/SPLM0SI 19 GPI09/SPLMISO 21 GPI01/SPLSCLK 23 GPI08/SPLCE0 24 GPI07/SPL 27 GND 9 GND GND C4 20 GND 12C INTERFACE GPI07/SPI_CE1 GND GND GND GND CONN_02X05 7 GP104/G
29 GP105
31 GP105
32 GP105
33 GP105
35 GP1013
36 GP1014
11 GP1017
12 GP1018
38 GP1020
40 GP1020 GPIO4/GPCI KO GPI04/GPCLK0 C19 GPI05 29 GPI06 31 GND sar_in2 1 P7 E0XTO 0.1uF P13 2 3 4 5 6 7 8 9 10 GPI012 GPI013 GPI013 GPI016 GPI017 ID_SC 27 GPI017 GPI018 12 12C INTERFACE v24in GPI019 GPI020 35 CONN_02X05 v24in 40 GPI021 15 GPI022 GPI021 _pwm_a GPI022 16 GPI023 18 GPI024 GPI022 GPI023 GPI024 18 GPI024 GPI025 GPI026 GPI027 13 22 GPI025 37 GPI025 13 GPI027

Raspberry_Pi_+_Conn

Raspberry_Pi_+_Conn

<u>v24i</u>n

v24in

pwm_b 1

GND

v24in

v24in

sar_in4 1 P9 00 X10 NNO 00 NNO

GND

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