HELLO MY NAME IS
PCB BADGE

PAGE
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01   COVER SHEET
02   RP2040 & BATT

REV
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1.0   INITIAL RELEASE

USBBOOT
R? 1k

VBUS   +BATT
R? 1k Q? AO3401A
R? 10k VCC
GND
VUSB DISCONNECTS BATT HS

VCC   +3V3
L? 10u   D? 1N5819WS
U? VIN SW / EN FB / GND
TPS61040DBV
C? 4.7u
R? ?   R? ?   R? ?
C? ?   C? 1u
GND

+3V3 +3.3V
C? 0.1u C? 0.1u C? 0.1u C? 0.1u C? 0.1u C? 1u
GND

IOVDD 10 22 33 42 43 48 49 44
VREG_VIN 2
C? 0.1u C? 0.1u C? 1u
DVDD 23
VREG_VOUT 50 45
GND

QSPI_CS 56 QSPI_CS
QSPI_SCLK 52 QSPI_SCLK
QSPI_SD0 53 QSPI_SD0
QSPI_SD1 55 QSPI_SD1
QSPI_SD2 54 QSPI_SD2
QSPI_SD3 51 QSPI_SD3

U?
+BATT
SW? SSSS811101
GND
R? 10k
R? 1k Q? AO3400A
C? 1u
−BATT
SLIDE SW ENABLES BATT PWR

+3V3
R? 10k
SW? RESET 26 RUN
GND
USB_D− R? 22 D− 46 USB_D−
USB_D+ R? 22 D+ 47 USB_D+
27Ω IS SPEC, NOT JLC BASIC PART
SW? USBBOOT
GND
SWCLK 24 SWCLK
SWDIO 25 SWDIO
C? 12p   Y? 12MHz 20 XIN
C? 12p   GND 21 XOUT
GND

GPIO0 2 GPIO0
GPIO1 3 GPIO1
GPIO2 4 GPIO2
GPIO3 5 GPIO3
GPIO4 6 GPIO4
GPIO5 7 GPIO5
GPIO6 8 GPIO6
GPIO7 9 GPIO7
GPIO8 11 GPIO8
GPIO9 12 GPIO9
GPIO10 13 GPIO10
GPIO11 14 GPIO11
GPIO12 15 GPIO12
GPIO13 16 GPIO13
GPIO14 17 GPIO14
GPIO15 18 GPIO15
GPIO16 27 GPIO16
GPIO17 28 GPIO17
GPIO18 29 GPIO18
GPIO19 30 GPIO19
GPIO20 31 GPIO20
GPIO21 32 GPIO21
GPIO22 34 GPIO22
GPIO23 35 GPIO23
GPIO24 36 GPIO24
GPIO25 37 GPIO25
GPIO26 38 GPIO26 ADC
GPIO27 39 GPIO27 ADC
GPIO28 40 GPIO28 ADC
GPIO29 41 GPIO29 ADC
GND 57 GND
RP2040

+BATT
F? Fuse_Small
BT? AAx2
+
−BATT

J?
VBUS
VBUS A4
CC1 A5 R? 56k
CC2 B5 R? 56k
GND
D− A7
D− B7 USB_D−
D+ A6
D+ B6 USB_D+
SBU1 A8
SBU2 B8
SHIELD
S1 A1 GND
USB_C_Receptacle_USB2.0
GND GND

VBUS   U? RT9080−33GJ5   +3V3
VIN VOUT / EN / GND
C? 4.7u   C? 4.7u
GND   GND   GND

+3V3
P?
VCC 1 GND 2
i2c0_sda 3 SDA SCL 4 i2c0_scl
sao1_gpio1 5 GPIO1 GPIO2 6 WS2812_DOUT
SAO 2x3 IDC
GND

+3.3V
R? 10k
U? CS 1 QSPI_CS
VDD 8
SCK 6 QSPI_SCLK
DI/IO0 5 QSPI_SD0
DO/IO1 2 QSPI_SD1
WP/IO2 3 QSPI_SD2
HOLD/IO3 7 QSPI_SD3
GND 4
W25Q64JV
GND

+3.3V +3.3V +3.3V +3.3V
D? D? D? D?
GPIO21
VDD 4 DIN DOUT VDD 4 DIN DOUT VDD 4 DIN DOUT VDD 4 DIN DOUT 1 WS2812_DOUT
3 VSS 2   3 VSS 2   3 VSS 2   3 VSS 2
GND WS2812B−2020   GND WS2812B−2020   GND WS2812B−2020   GND WS2812B−2020