

**⊲**MuxEN **⊲**MuxEN Balancer8 +3.3٧ >Cell+ VoltageCell8 CellVoltageD >Cell− +3.3V U8 CurrentCell8 +3.3V BalaceCurrentD Balance8\_ >BalanceControl Module\_NINA-B306 U7 File: Blancer1-8.kicad\_sch 92 74HC4051 CurrentCell6 CellVoltage P0.18/RESET 19 RESET Balancer7 Balance3 18 sP0.02/AIN0 Balance1 16 sP0.03/AIN1 CurrentCell7 14 CellVoltage 25 P0.04/AIN2 >Cell+ VoltageCell7 CurrentCell8 15 MuxS0 CellVoltagel S0 27 P0.05/AIN3 >Cell-12 A3 CurrentCell5 MuxS1 S1 C12 CurrentCell7 ANT 13 BalaceCurrentD VoltageCell8 MuxS2 43 Balance7 ⊃BalanceControl 100n S2 100n P0.06 45 VoltageCell5 P0.07/TRACECLK File: Blancer1-8.kicad\_sch VoltageCell7 MuxEN 28 P0.09/NFC1 VoltageCell6 29 sP0.10/NFC2 VBUS Balancer6 32 PO.11/TRACEDATA2 54 D+ 55 >Cell+ P0.12/TRACEDATA1 VoltageCell6 D-CellVoltageD **BUTTON** 1 P0.13 >Cell-2 P0.14 CurrentCell6 Balance5 Balance6\_ BalaceCurrentD ⊃BalanceControl 11 SWDCLK Balance6 ₩P0.15 SWDCLK 15 SWDIO Balance7 ₽0.16 SWDIO File: Blancer1-8.kicad sch LED\_G 51 ₽0.17 +3.3V +3.3V LED\_B 52 ₩P0.19 Balancer5 LED\_R 50 ₩P0.20 SW0/P1.00 U6 MuxEN 48 Balance >Cell+ ₽0.21 P1.01 VoltageCell5 CellVoltage[ 74HC4051 🙎 49 P0.22 >Cell-P1.02 VoltageCell2 13 47 37 CurrentCell5 3 BalanceCurrent MuxS2 Balance5\_ BalaceCurrentD A0 ₩P0.23 P1.03 DBalanceControl VoltageCell3 14 5 34 Balance8 A1 ₩P0.24 P1.08 7 <sub>P</sub>0.25 33 VoltageCell4 15 TRACEDATA3/P1.09 File: Blancer1-8.kicad\_sch VoltageCell1 12 MuxS1 38 **№**0.26 C9 Α3 S1 P1.10s 44 P0.27 CurrentCell4 MuxS2 39 Balancer4 P1.11 CurrentCell1 Balance2 17 Balance4 A5 sP0.28/AIN4 P1.12 Supply Cell+ VoltageCell4 CurrentCell3 MuxEN MuxS1 23 22 MuxS0 Α6 P0.29/AIN5 P1.13s CellVoltage[ >Cell-BalanceCurrent 24 sp0.30/AIN6 CurrentCell2 41 P1.14s CurrentCell4 BalaceCurrentD 40 Balance4\_ 20 sP0.31/AIN7 P1.15s >BalanceControl File: Blancer1-8.kicad\_sch Balancer3 Cell+ VoltageCell3 CellVoltageD >Cell-CurrentCell3 BalaceCurrentD Balance3\_ ⊃BalanceControl +3.30 +3.37 +3.3V File: Blancer1-8.kicad\_sch R27 1.8k +3.3V Balancer2 LED\_R >Cell+ R25 R26 VoltageCell2 R28 CellVoltageD 51k >Cell-51k 1.8k CurrentCell2 BalaceCurrentD RESET C13 C14 SWD\_RST BUTTON LED\_G Balance2\_ ⊃BalanceControl 100n 100n R29 File: Blancer1-8.kicad\_sch C10. SW5 C11 -SW6 1.8k 100n Reset 100n <sup>4</sup> Button LED\_B Balancer1 D3 LED >Cell+ VoltageCell1 CellVoltage  $\Diamond$ >Cell-CurrentCell1 GND GND GND GND BalaceCurrentD Balance1\_ ⇒BalanceControl J5 File: Blancer1-8.kicad\_sch Conn\_01x06 GND +3.3V SWDIO U17 SWDCLK LDO\_Diodes\_AP7370 RESET Supply Min Cell Voltage: 2.5V (LiFe: 2.6V) Min Pack Voltage: 20V (8x 2.5V) TX Sheet: /Balancer/ C39 . C40 RX Min Balance Voltage: 3.2V (LiFe: 3.3V storage) File: Balancer.kicad sch 1u ' Max Cell Voltage: 4.5V (HVLiPo: 4.35V) 1u Max Pack Voltage: 36V (8x 4.5V) Title: 8-Cell Balancer Charger  $\Diamond$ Peak Balance Current: 1A  $\Diamond$  $\rightarrow$  $\Diamond$ GND Size: A4 Date: Rev: v1 GND GND GND KiCad E.D.A. kicad (6.0.11) ld: 2/10

CIMINXT

⊲Mux2

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