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Revisions			
Rev	Description	Date	Approved
X1	First draft	3/17/23	T.Q.
A	Release	4/3/23	T.Q.
A1	1) R108_x, R109_x, R110_x, R111_x : replaced with 180 ohm resistors 2) C21_x, C23_x : replaced with 10nF capacitors 3) L1, L2, L3, L4 : replaced with 0ohm resistors 4) R102_x, R103_x, R104_x, R105_x, R106_x, R107_x: replaced with 0ohm resistors 5) C83_x, C84_x, C80_x, C81_x, C86_x, C87_x : replaced with 22nF/630V capacitors Release	6/7/23	T.Q.

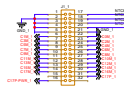
RD33774PC3EVB

REF DES	ASSY_OPT	PAGE NAME
C18_1,C19_1,C24_1,C25_1, C32_1,C37_1,D2_1,D5_1,D9_1, D10_1,R15_1,R20_1,R26_1, R27_1,R81_1	DNP	02 - 33774 FIRST
C18_2,C19_2,C24_2,C25_2, C32_2,C37_2,D2_2,D5_2,D9_2, D10_2,R15_2,R20_2,R26_2, R27_2,R81_2	DNP	03 - 33774 SECOND
C18_3,C19_3,C24_3,C25_3, C32_3,C37_3,D2_3,D5_3,D9_3, D10_3,R15_3,R20_3,R26_3, R27_3,R81_3	DNP	04 - 33774 THIRD
C82_1,C82_2,C88_1,C88_2,T1, T2,T3,T4	DNP	05 - TPL - BUS

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Drawn by: Jun Qiao	Page Title: TITLE, TOC & REV		
Approved: Taher Qader	Size C	Document Number SCH-89867 PDF: SPF-89867	Rev A1
Date: Wednesday, June 07, 2023		Sheet 1 of 5	

BMS1BCC18 - GEN1.5

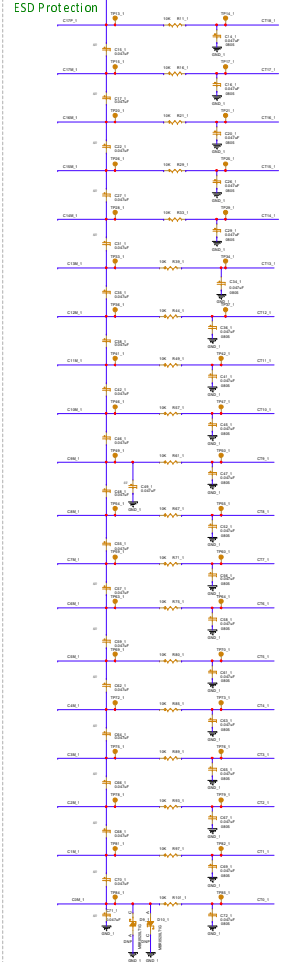
Battery Pack Interface



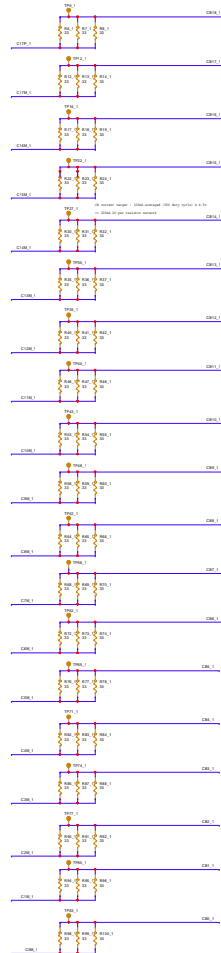
ESD Protection VBAT power filter



ESD Protection Cell voltage measurement



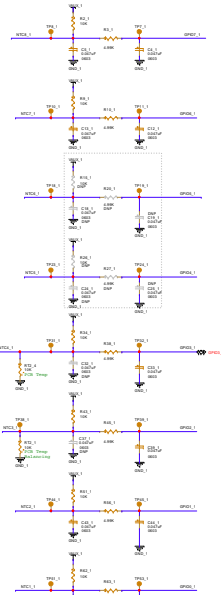
Balancing



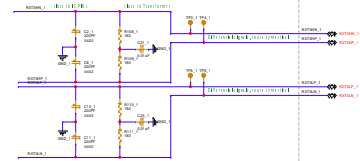
Ground Test points



NTC 10K Temperature measurement

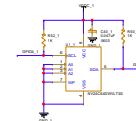


TPL Interface

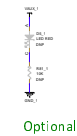
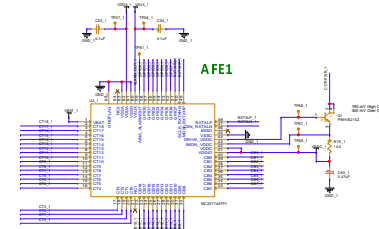


I2C EEPROM

Optional, GPIO4 and GPIO5 are used



AFE1



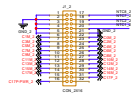
Optional

!! CORE LAYOUT !!
any layout change in this area without permission is not permitted!

!! CORE LAYOUT !!

BMS1BCC18 - GEN1.5

Battery Pack Interface



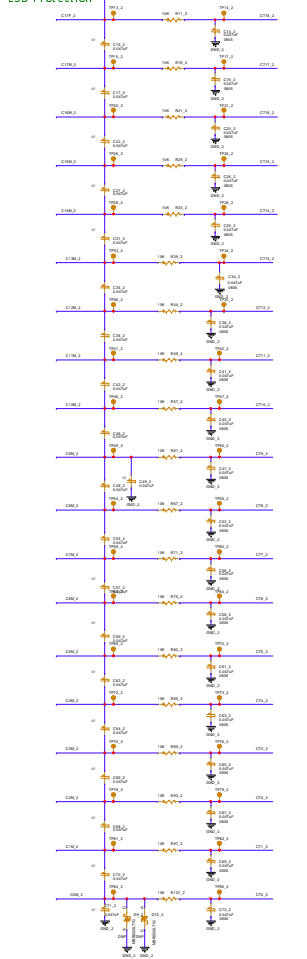
ESD Protection

VBAT power filter

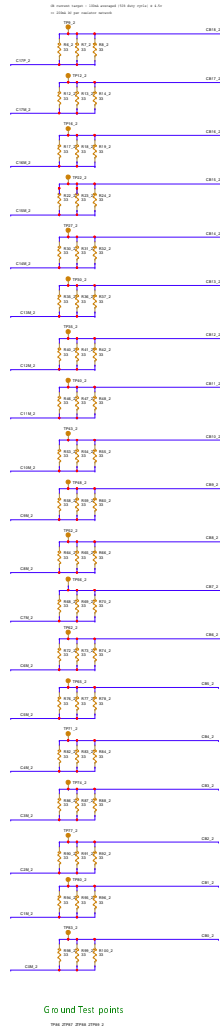


ESD Protection

Cell voltage measurement



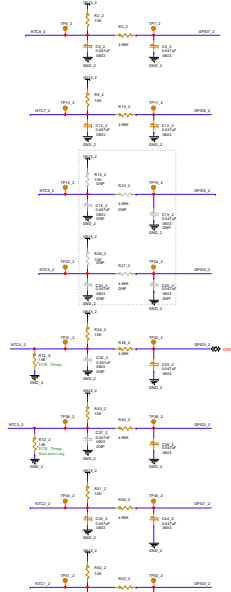
Balancing



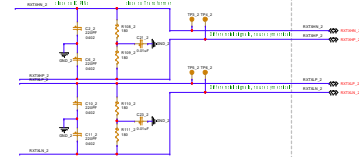
Ground Test points



NTC 10K Temperature measurement

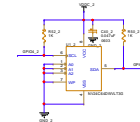


TPL Interface

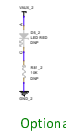
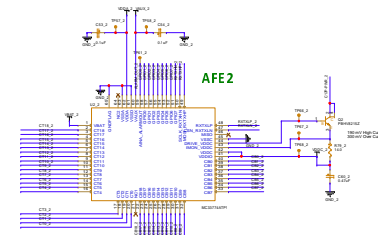


12CEEPROM

Optional, GPIO4 and GPIO5 are used



AFE2



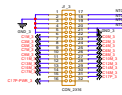
Optional

!! CORE LAYOUT !!
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!! CORE LAYOUT !!

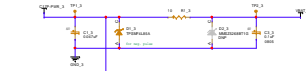
BMS1BCC18 - GEN1.5

Battery Pack Interface



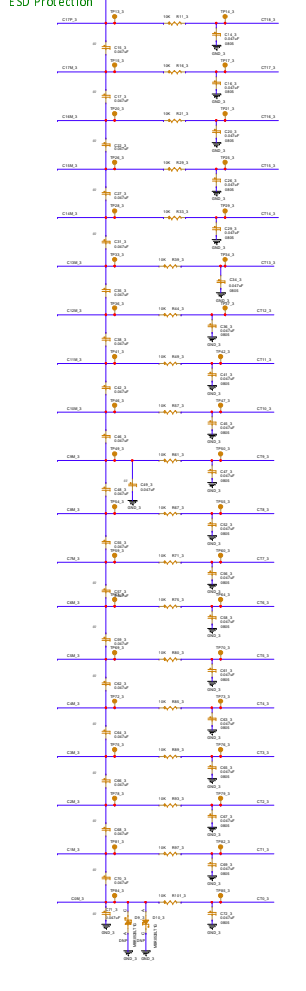
ESD Protection

VBAT power filter

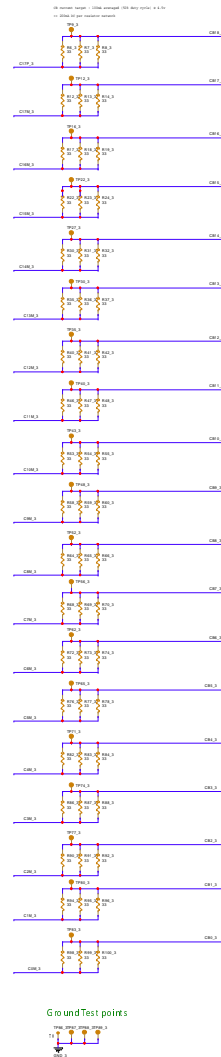


ESD Protection

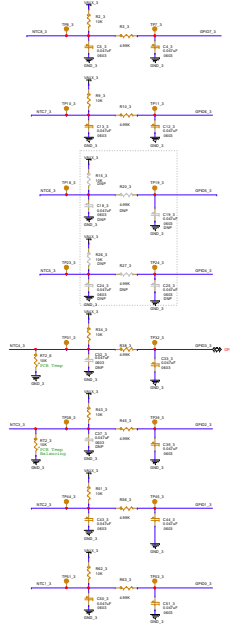
Cell voltage measurement



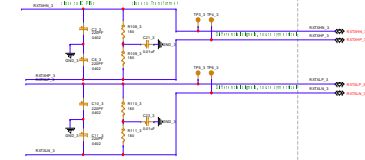
Balancing



NTC 10K Temperature measurement

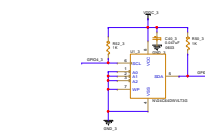


TPL Interface

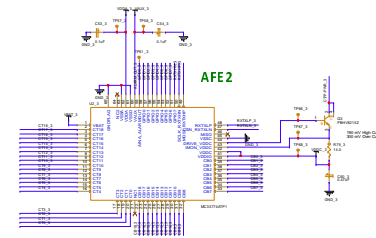


IZCEEPROM

Optional, GPIO4 and GPIO5 are used



AFE2



Optional

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!! CORE LAYOUT !!

TPL Interface & busbar sensing

