

E-Agle TRT

Sheet: /  
File: CellsBoard.sch

**Title: Fenice BMS – CellBoard**

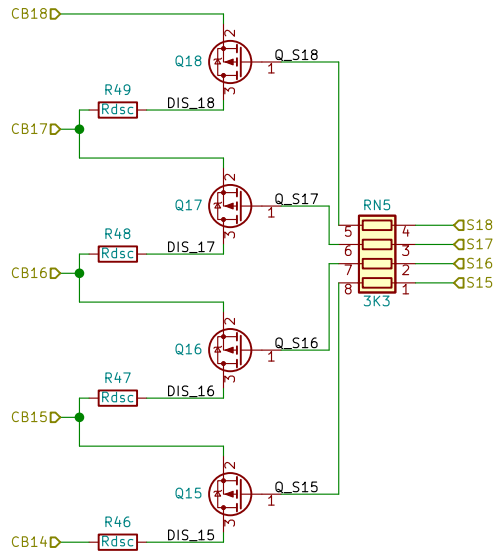
Size: A4 Date: 2021-06-11

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### DISCHARGE OF CELL 18,17,16,15

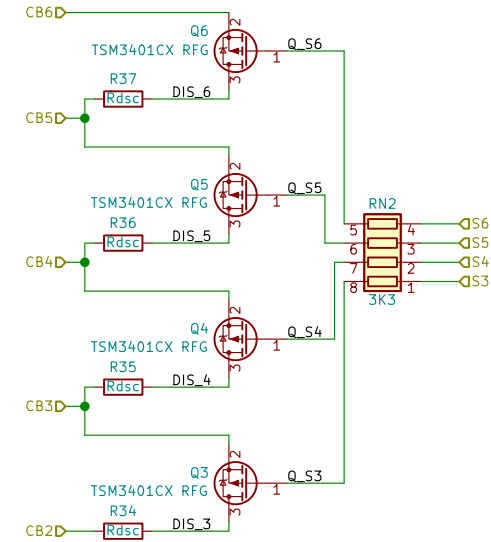


### PASSIVE DISCHARGE SELECTION (power dissipation 2512=3W)

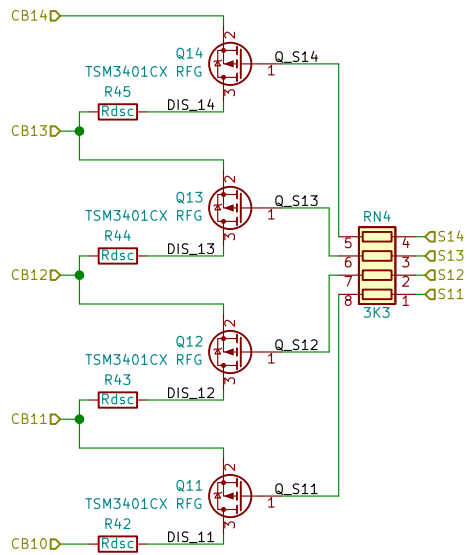
SINGLE RESISTOR			
V <sub>max</sub> [V]	I <sub>discharge</sub> [A]	R [ohm]	P on R [W]
4,25	0,090	47	0,384308511
	0,109	39	0,463141026
	0,213	20	0,903125
	0,425	10	1,80625

DUAL RESISTOR			
V <sub>max</sub> [V]	I <sub>discharge</sub> [A]	R [ohm]	P on R [W]
4,25	0,181	47	0,3843085
	0,218	39	0,463141
	0,425	20	0,903125
	0,567	15	1,2041667
	0,708	12	1,5052083
	0,850	10	1,80625
	1,037	8,2	2,2027439

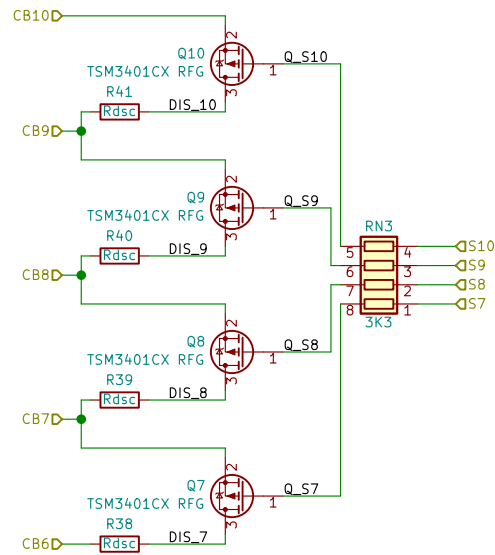
### DISCHARGE OF CELL 6,5,4,3



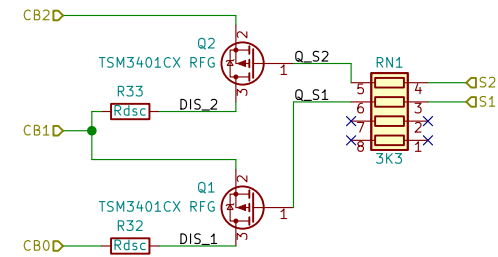
### DISCHARGE OF CELL 14,13,12,11



### DISCHARGE OF CELL 10,9,8,7



### DISCHARGE OF CELL 2,1



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Sheet: /MOS\_Balancer\_Passive\_metod/  
File: Balance.sch

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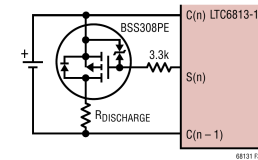
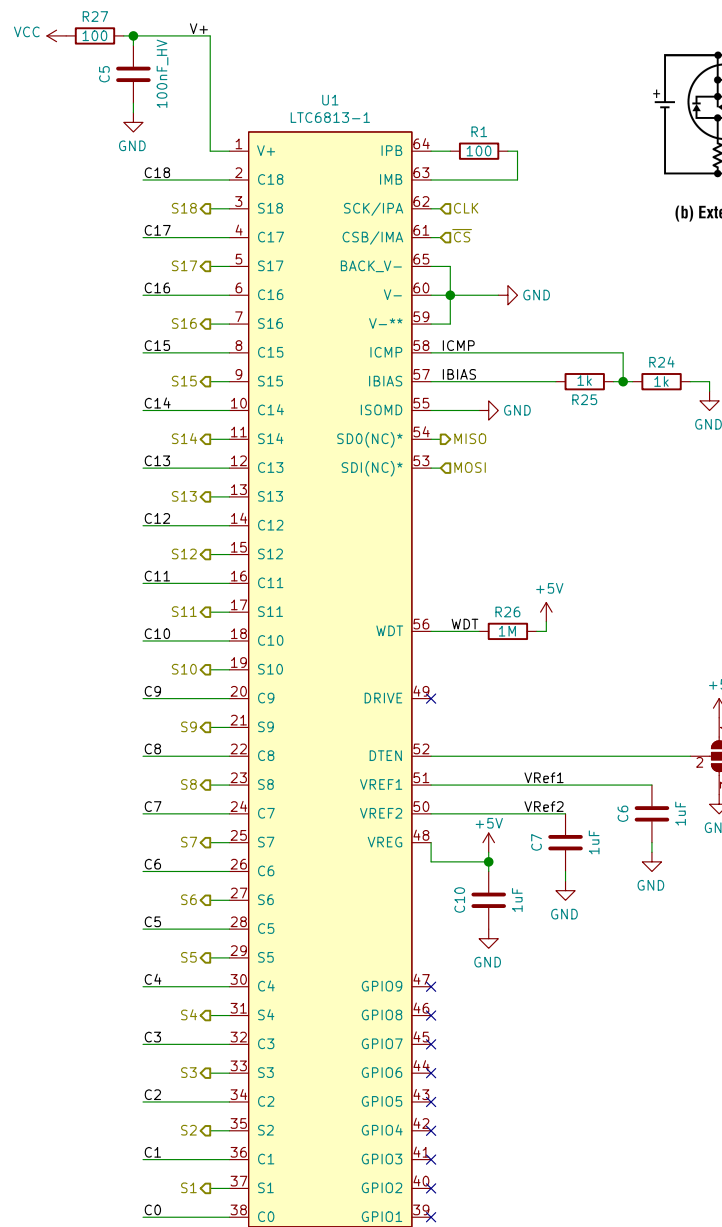
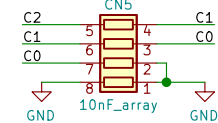
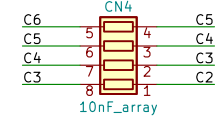
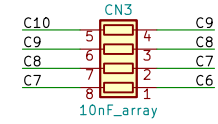
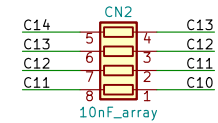
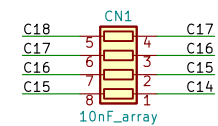
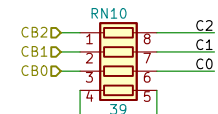
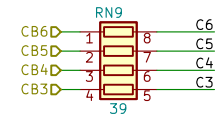
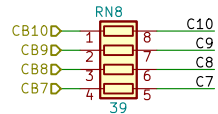
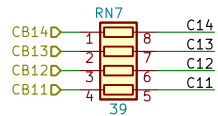
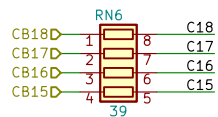
Size: A4 Date: 2021-06-11

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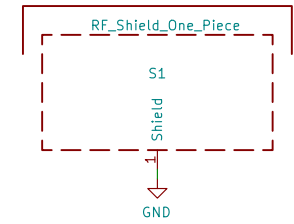
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## RC FILTER



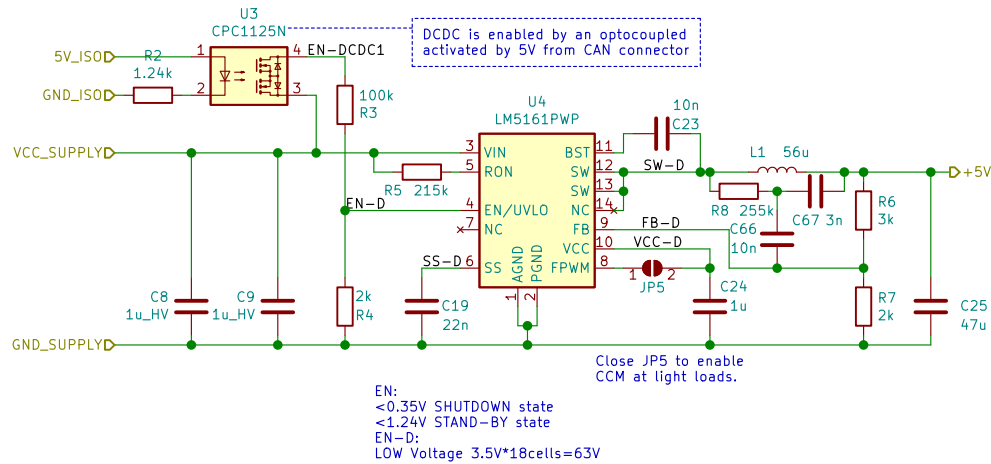
(b) External Discharge Circuit



C0 : Cell 1 negative sense  
Cn : Cell n positive sense  
Sn : Cell n balance control  
CB0 : Cell 1 negative sensing lead  
CBn : Cell n positive sensing lead

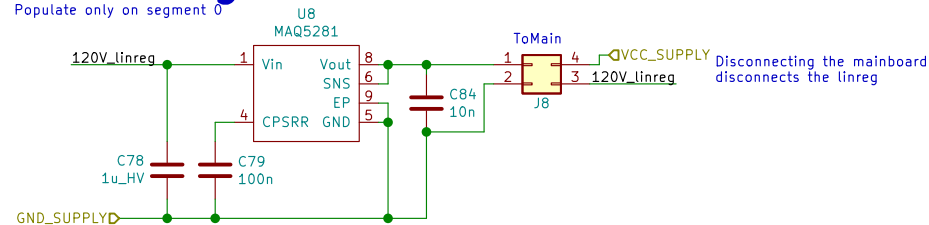
E-Agle TRT	
Sheet: /BATTERY MANAGER/	
File: LTC6813-1.sch	
Title: Fenice BMS - CellBoard	
Size: A4	Date: 2021-06-11
KiCad E.D.A. kicad 5.1.10	Rev: v2.2
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## Buck DCDC converter – 80V in – 5V 1A out



## Linear regulator 5V – 25mA

Populate only on segment 0



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Sheet: /DCDC\_80Vto5V/

File: PowerSupply.sch

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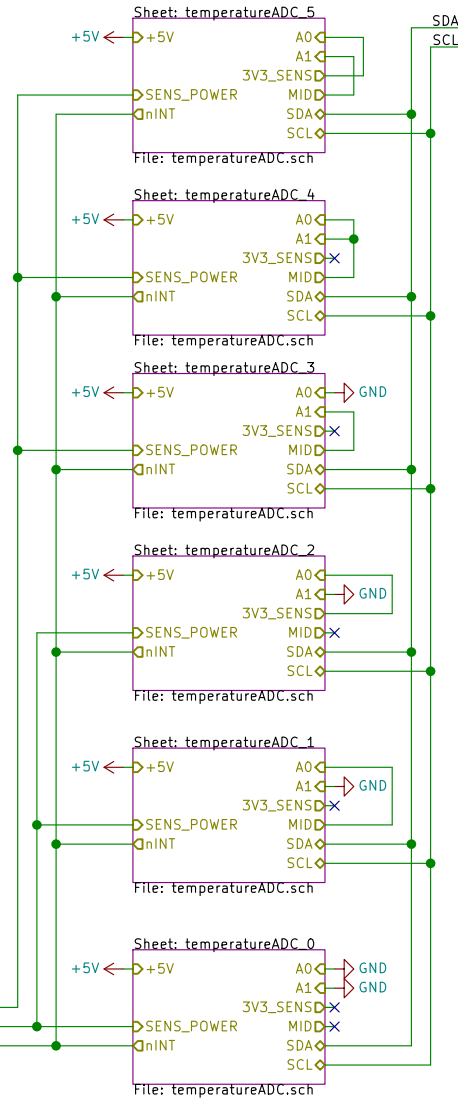
Size: A4 Date: 2021-06-11

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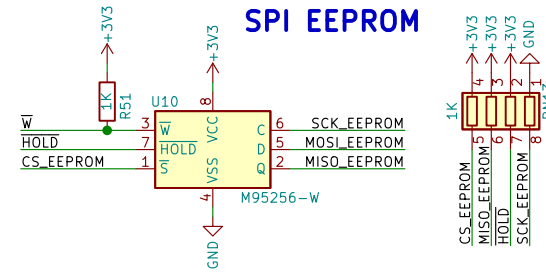
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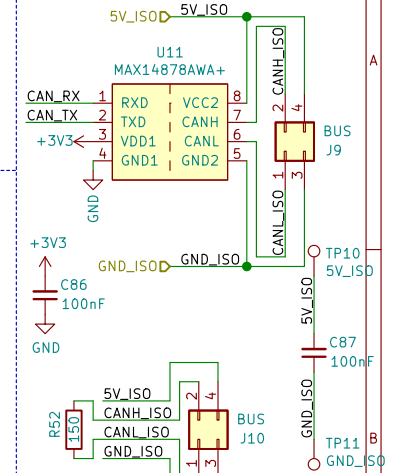
## TEMPERATURE SENSORS



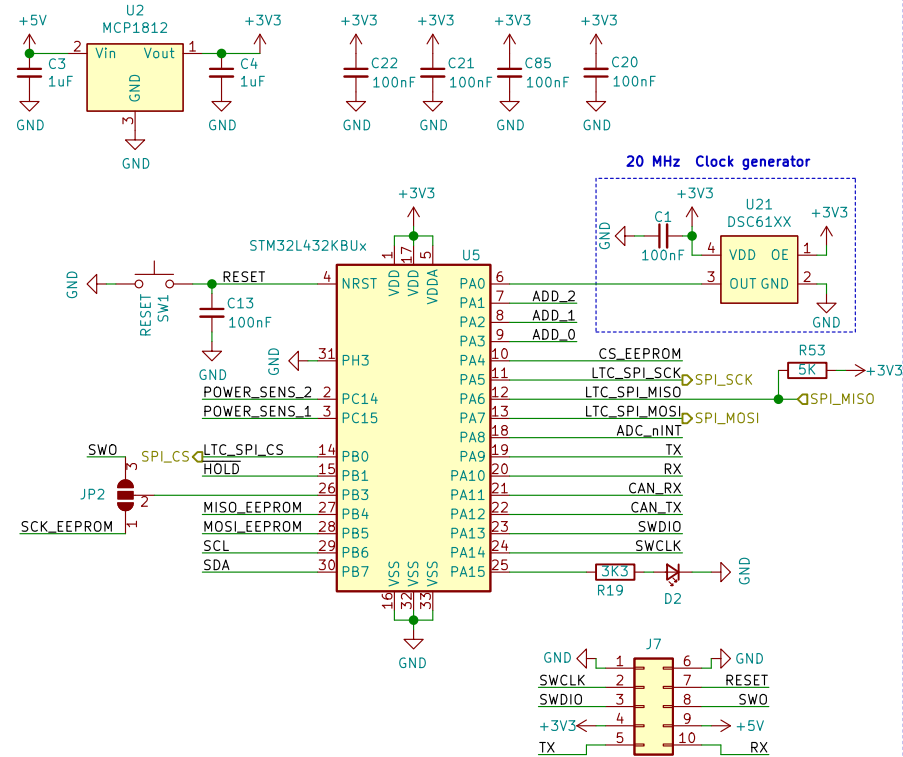
## SPI EEPROM



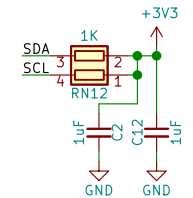
## ISOLATED CANBUS



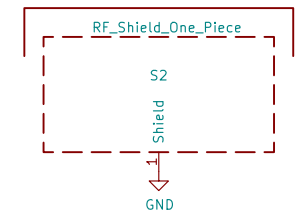
## STM32G474 MCU + LINEAR REGULATOR + PROGRAMM PORT



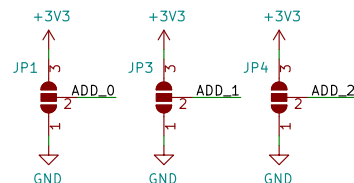
## I2C PULL-UP RESISTOR



## EMI SHIELD



## CELLBOARD ADDRESS SELECTION



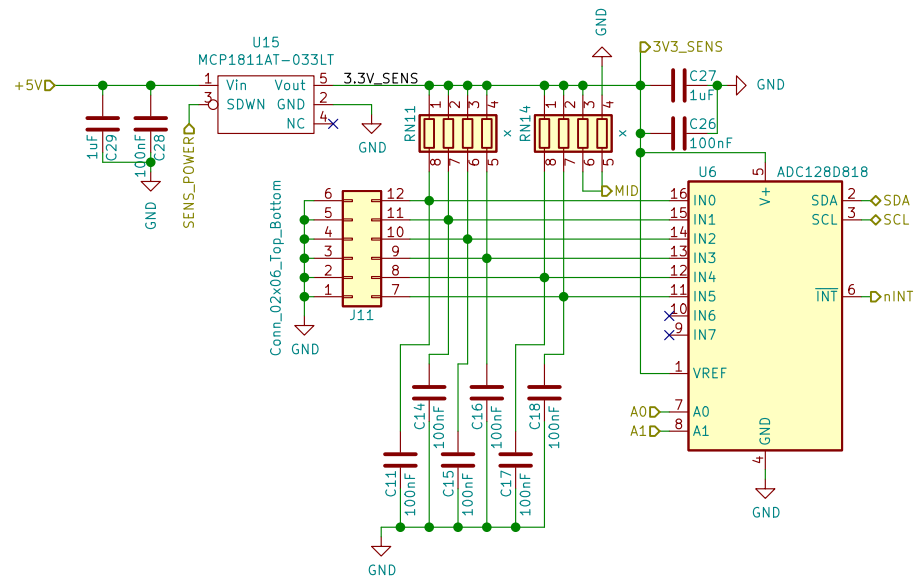
E-Agle TRT

Sheet: /STM/  
File: STM.sch

Title: Fenice BMS – CellBoard

Size: A4 Date: 2021-06-11  
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Sheet: /STM/temperatureADC\_3/  
File: temperatureADC.sch

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Size: A4 Date: 2021-06-11

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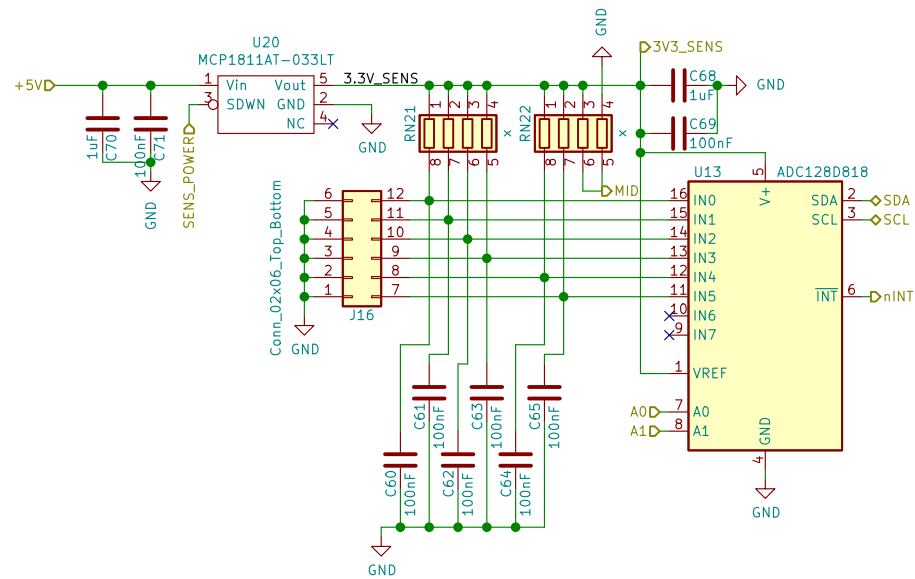
Id: 7/11

Id: 8/11



Id: 9/11

Id: 10/11



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Sheet: /STM/temperatureADC\_5/  
File: temperatureADC.sch

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