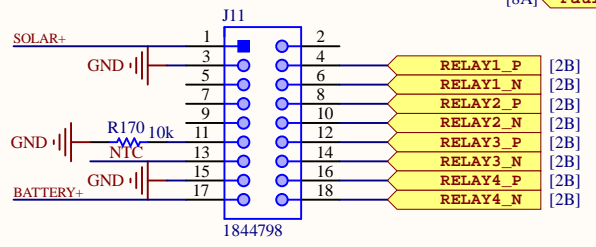
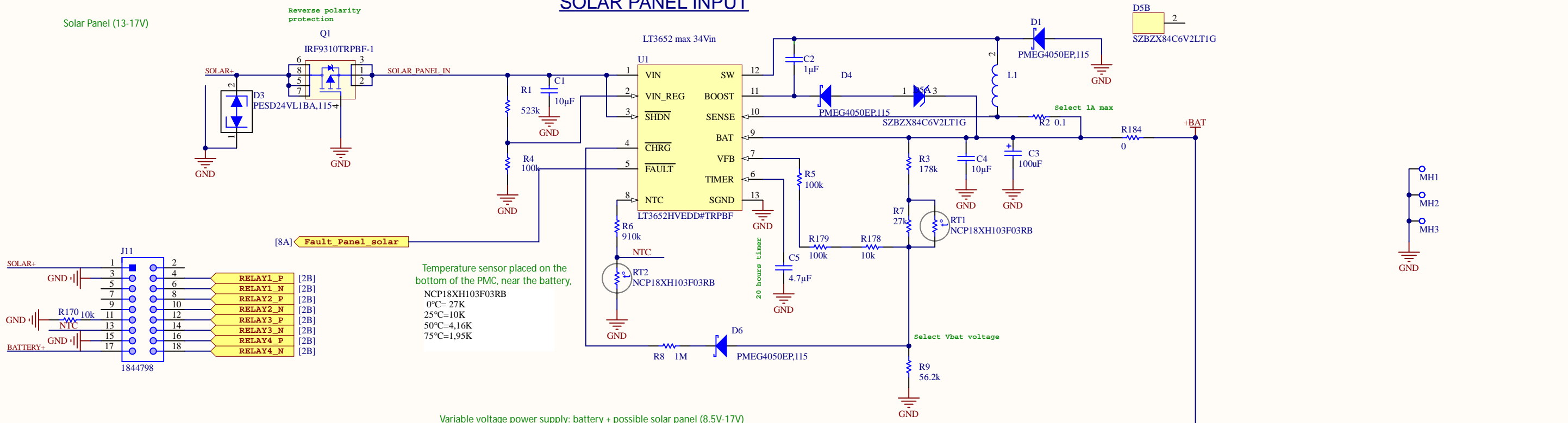


SOLAR PANEL INPUT

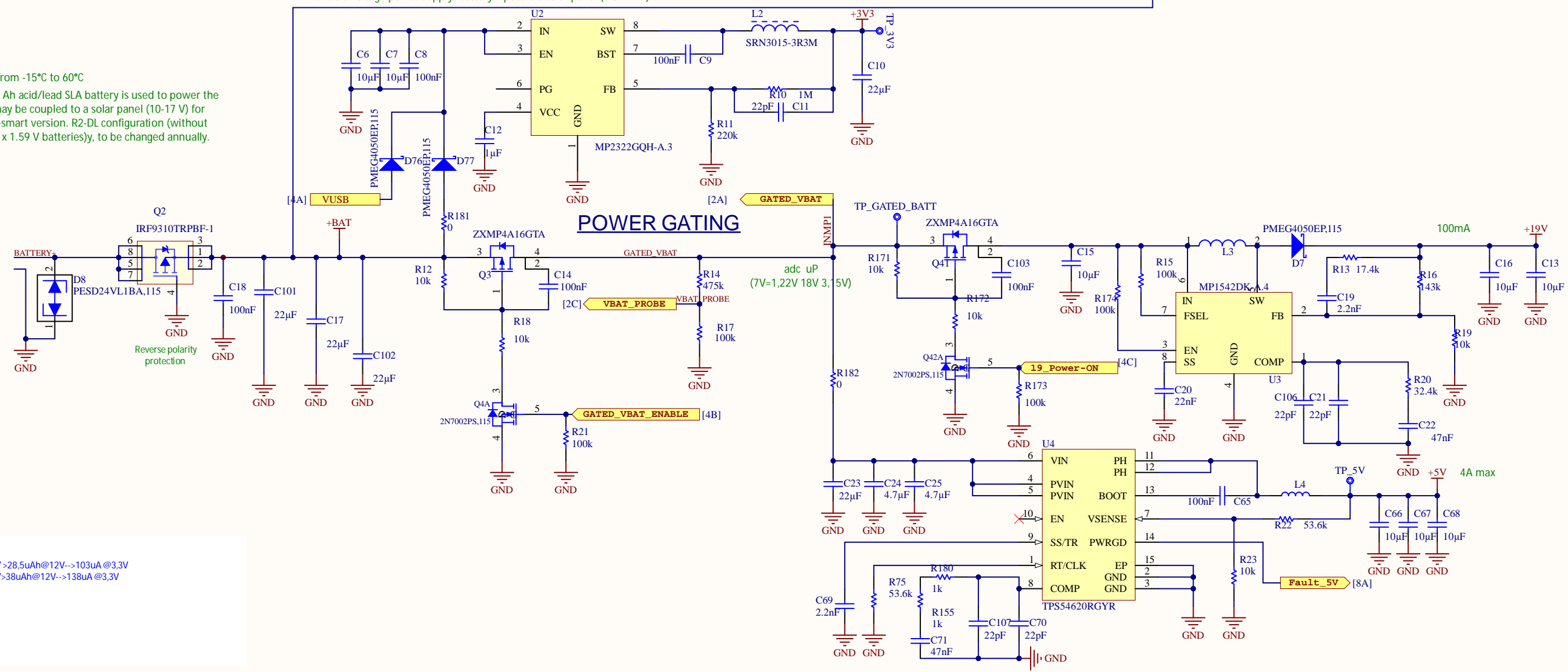


Temperature sensor placed on the bottom of the PMC, near the battery, NCP18XH103F03RB
 0°C= 27K
 25°C=10K
 50°C=4.16K
 75°C=1.95K

Variable voltage power supply: battery + possible solar panel (8.5V-17V)

Wide temperature range – from -15°C to 60°C
 An external 12V (11 - 13.3V) / 518 Ah acid/lead SLA battery is used to power the PMC for 125-186 months, and it may be coupled to a solar panel (10-17 V) for perennial use, especially in R2-DX-smart version. R2-DL configuration (without modem) is powered in by a 9 V (6 x 1.59 V batteries), to be changed annually.

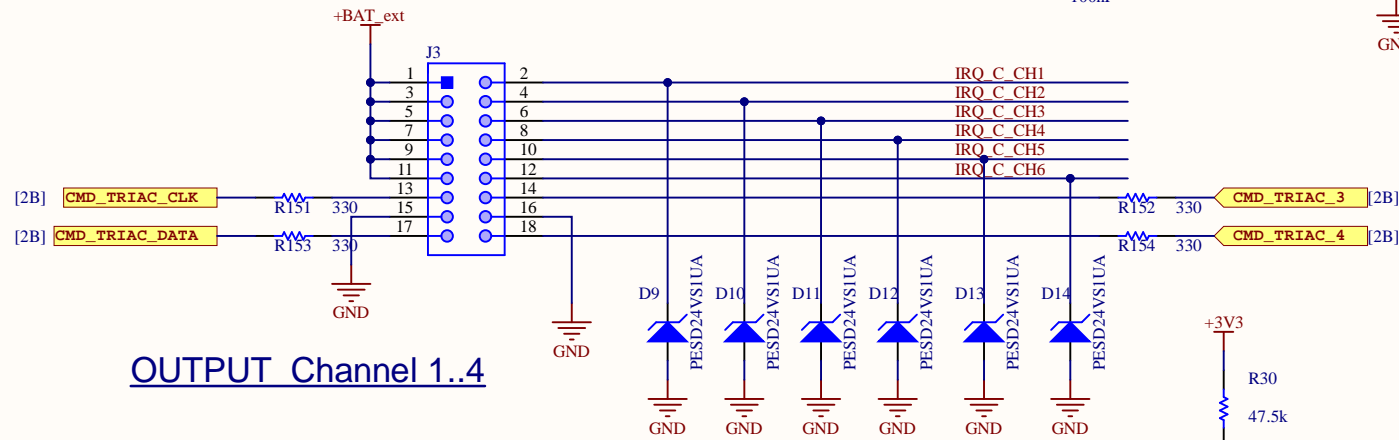
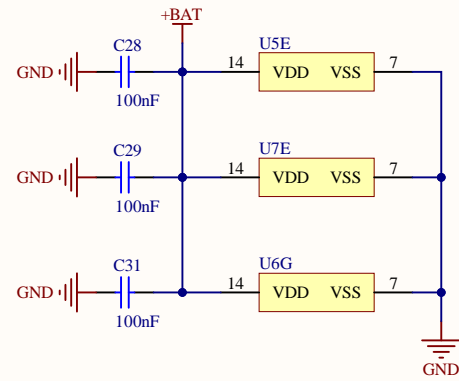
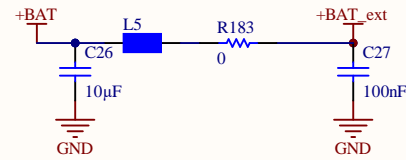
12V/5Ah acid/lead SLA battery (11 - 13.3V)



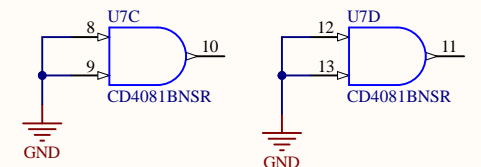
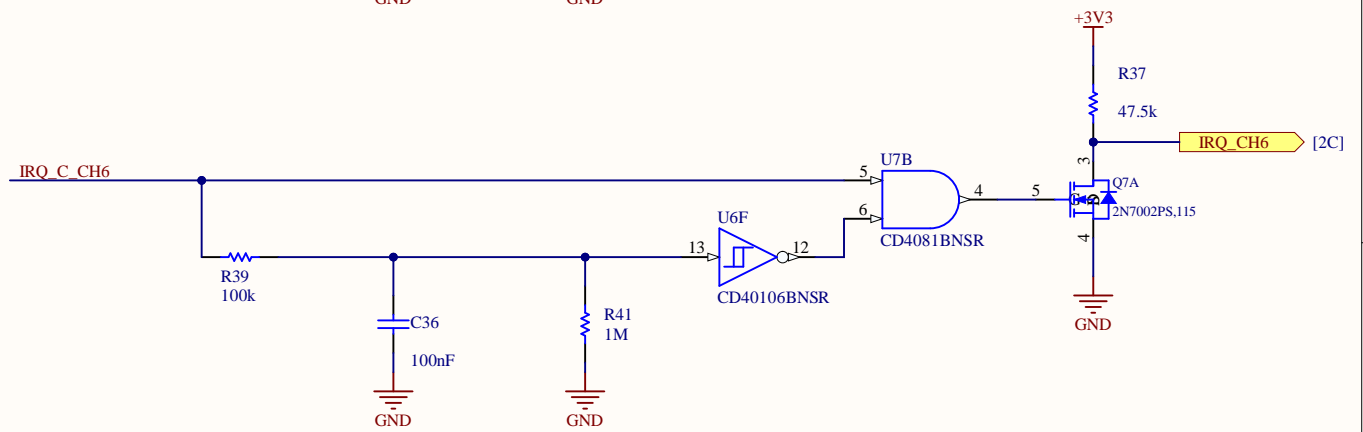
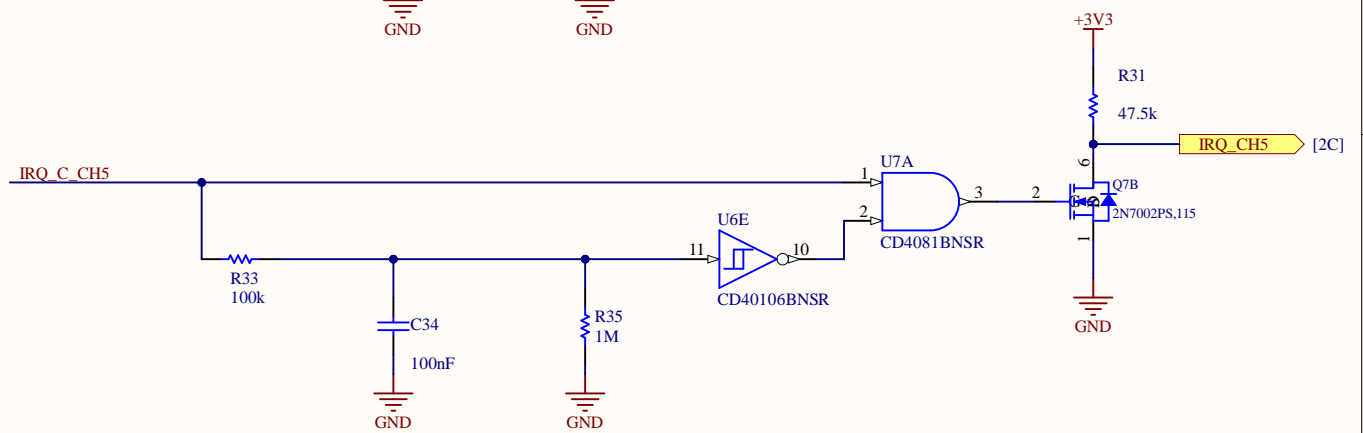
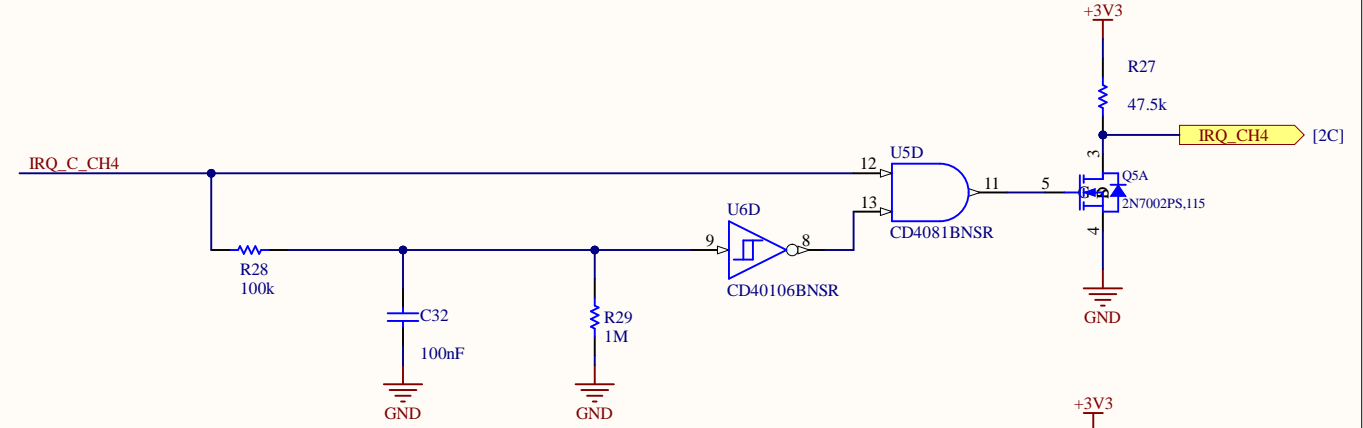
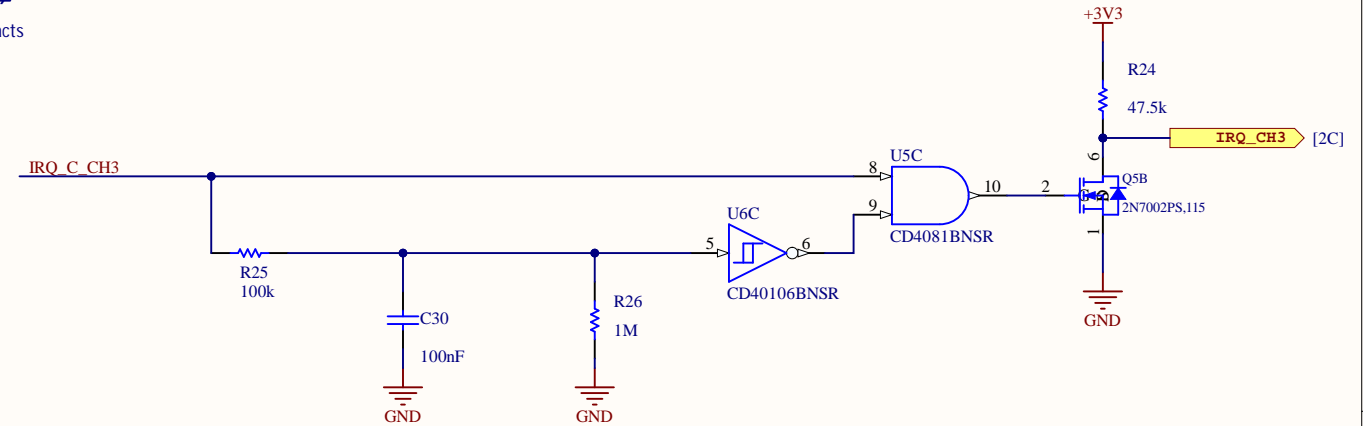
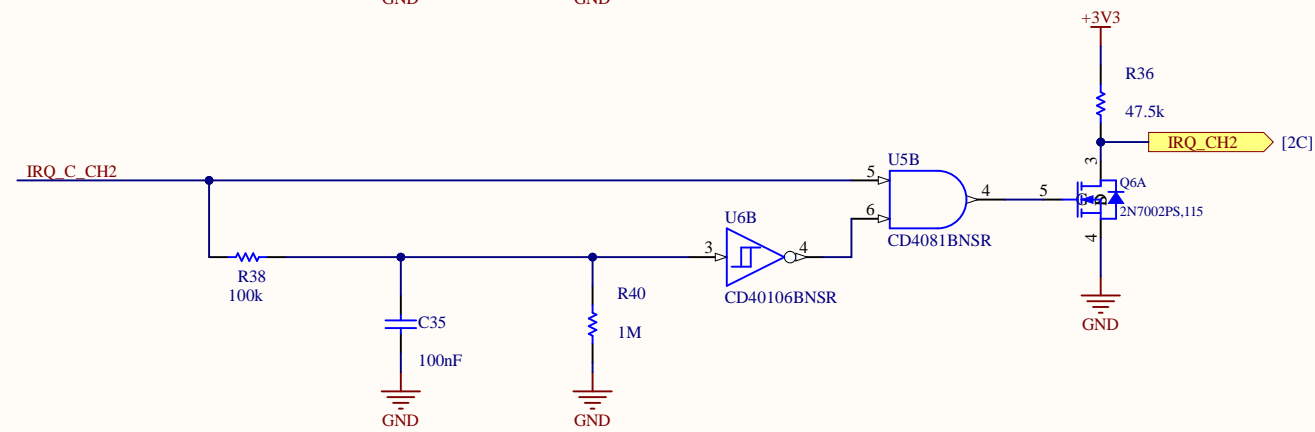
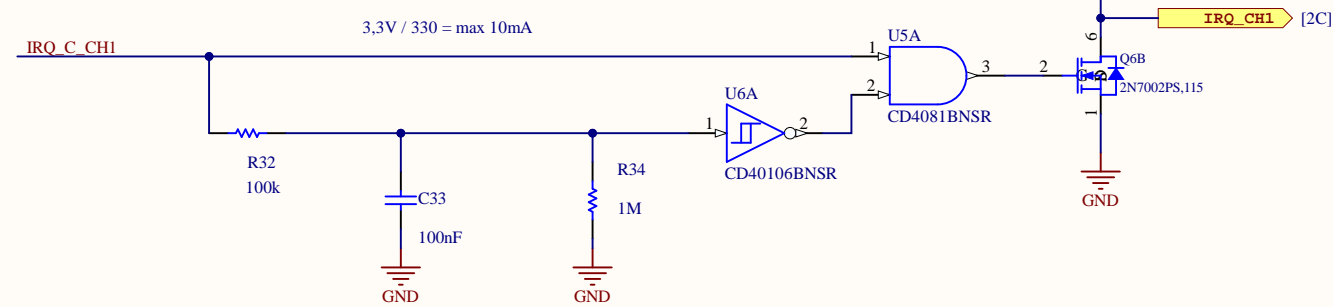
Power Consumption
 3 Wh/year @12V --> mean 342Wh @12V >28.5uAh@12V-->103uA @3.3V
 4 Wh/year @12V --> mean 456Wh @12V>38uAh@12V-->138uA @3.3V

INPUT ON/OFF Channel 1..6 (interrupt)

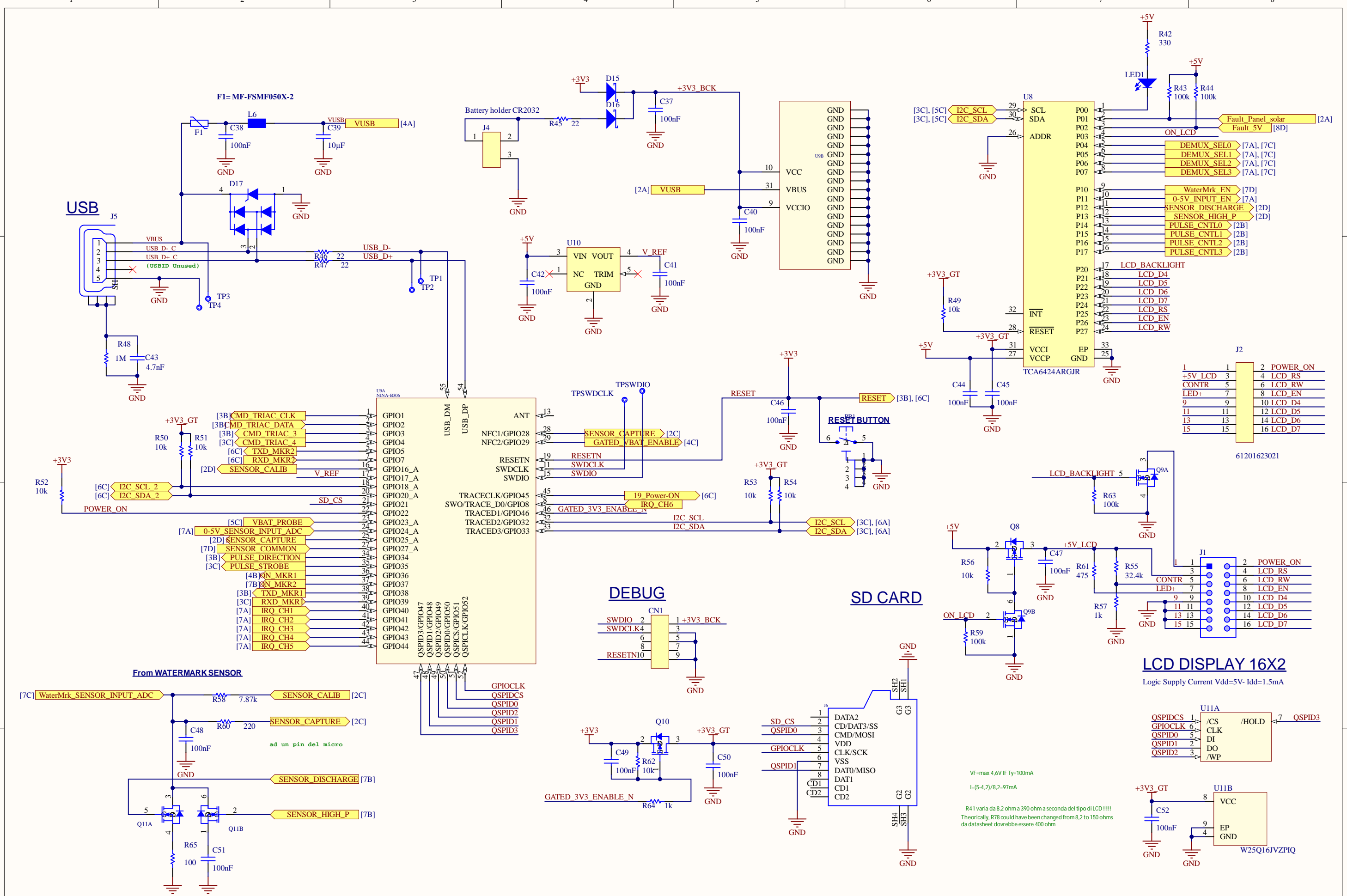
6 inputs on/off i for pluviometer, watermeter, switching pressure gauge, dry contacts



OUTPUT Channel 1..4



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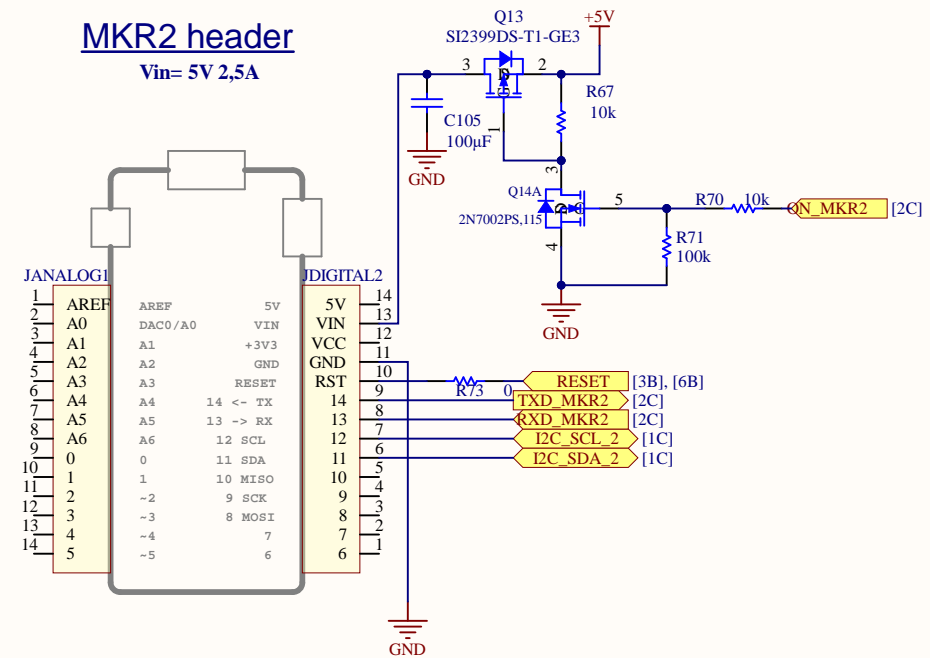
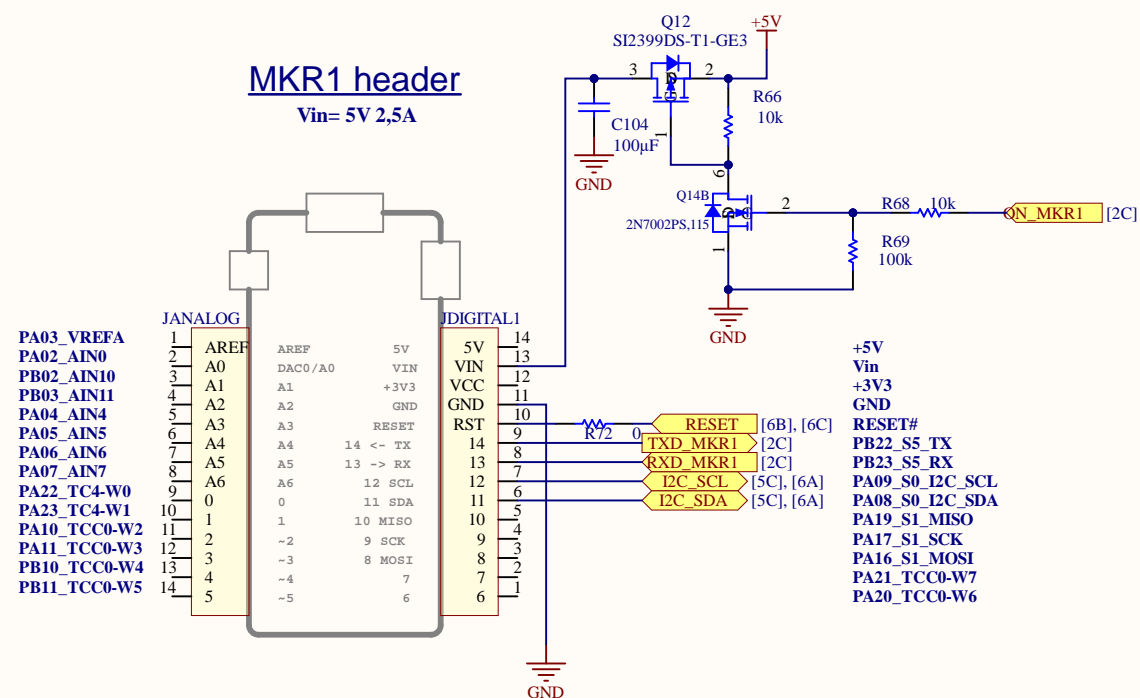


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VF= max 4,6V IF Ty=100mA
 I=(5-4,2)/8,2=97mA
 R41 varia da 8,2 ohm a 390 ohm a seconda del tipo di LCD !!!!
 Theoretically, R78 could have been changed from 8,2 to 150 ohms da datasheet dovrebbe essere 400 ohm

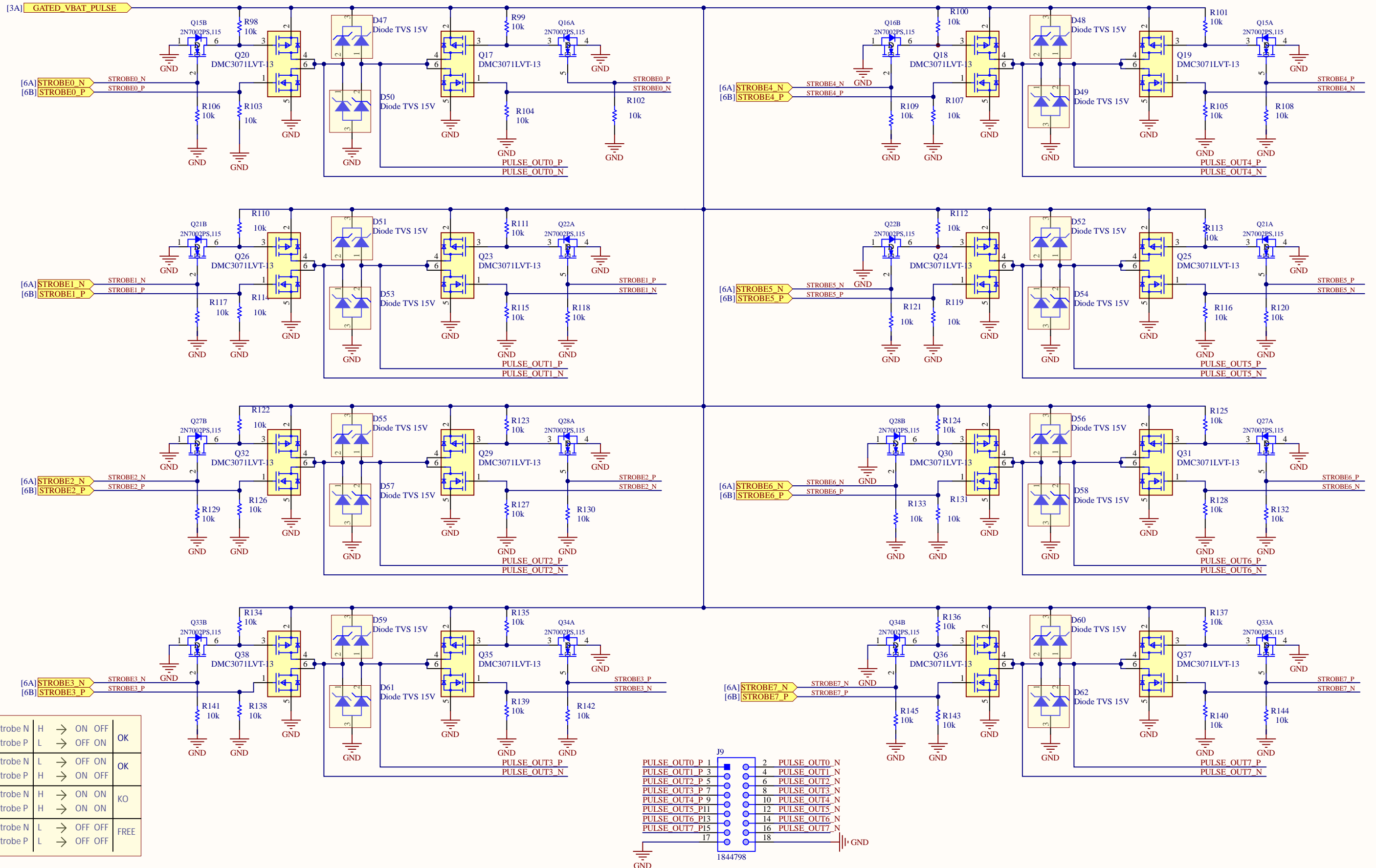
LCD DISPLAY 16X2
 Logic Supply Current Vdd=5V- Idd=1.5mA

MKR Arduino Expantions

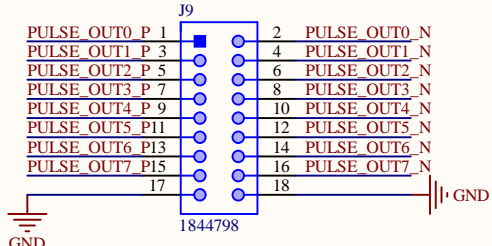


OUT LATCHING Channel 1..8

PROTEZIONI OUTPUT CONTRO CORTOCIRCUITI?



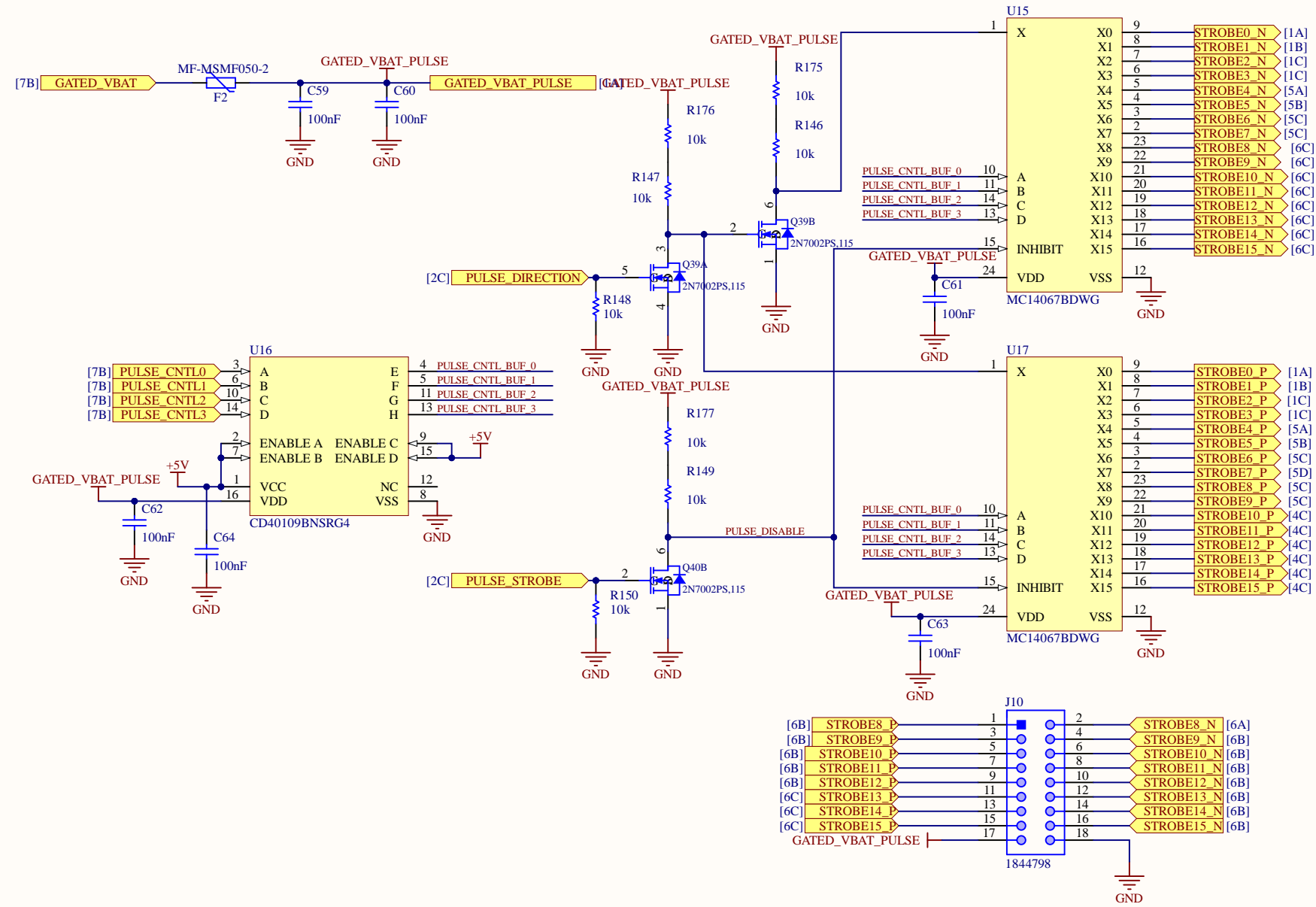
Strobe N	H	→	ON	OFF	OK
Strobe P	L	→	OFF	ON	
Strobe N	L	→	OFF	ON	OK
Strobe P	H	→	ON	OFF	
Strobe N	H	→	ON	ON	KO
Strobe P	H	→	ON	ON	
Strobe N	L	→	OFF	OFF	FREE
Strobe P	L	→	OFF	OFF	

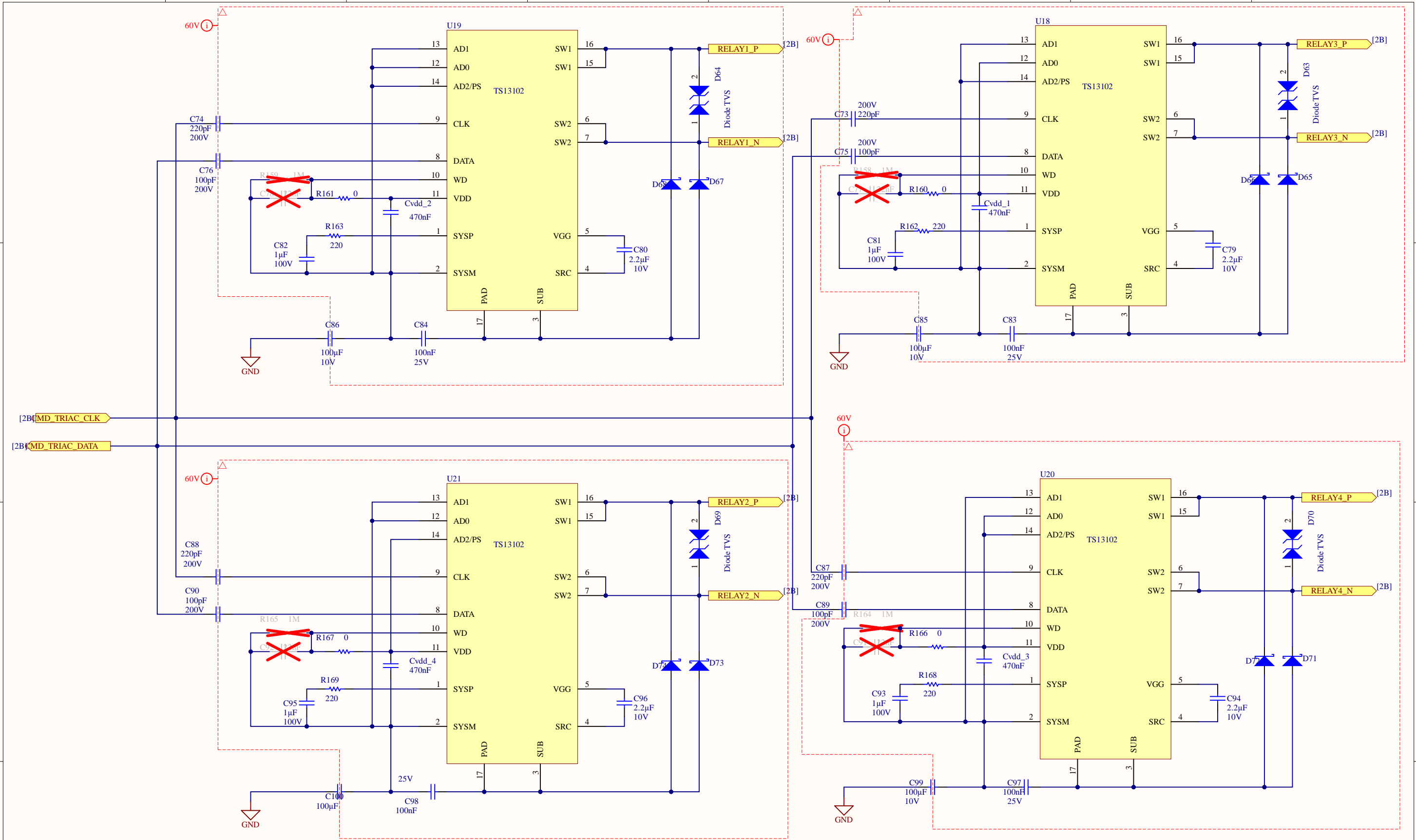


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Title Challenge_R2DX			
ID: *	Revision2		
Date: 27/07/2020	Time: 15:46:32	Sheet 6 of 8	
File: 06_latching_out_1-8.SchDoc	Author: F. Santagiuliana	Rev author *	

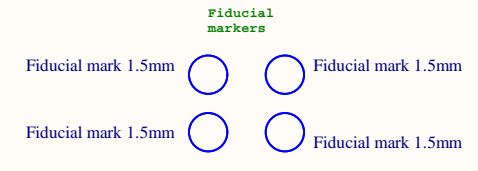
OUT LATCHING COMMANDs Channel 1..8





[2B] MD_TRIAC_CLK
[2B] MD_TRIAC_DATA

CR2032 230mAh



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Title Challenge_R2DX		Revision*	
ID: *	Date: 27/07/2020	Time: 15:46:35	Sheet 8 of 8
File: 08_triacc_out.SchDoc	Author: F.Santaguiliana	Rev author*	

