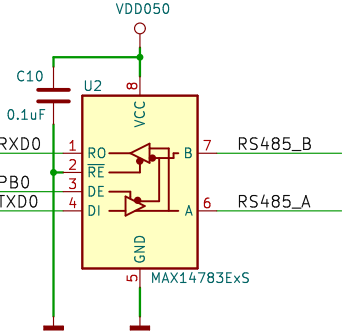
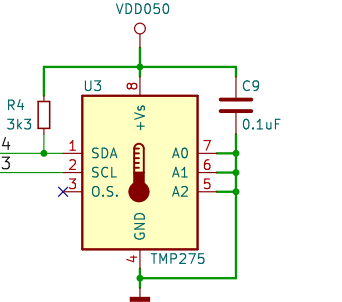


D2 is not assembled.  
Remove R1 and  
assemble D2 if battery  
backup is needed.

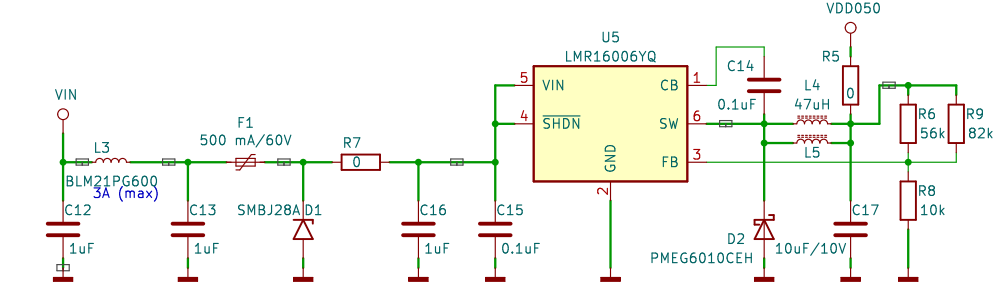
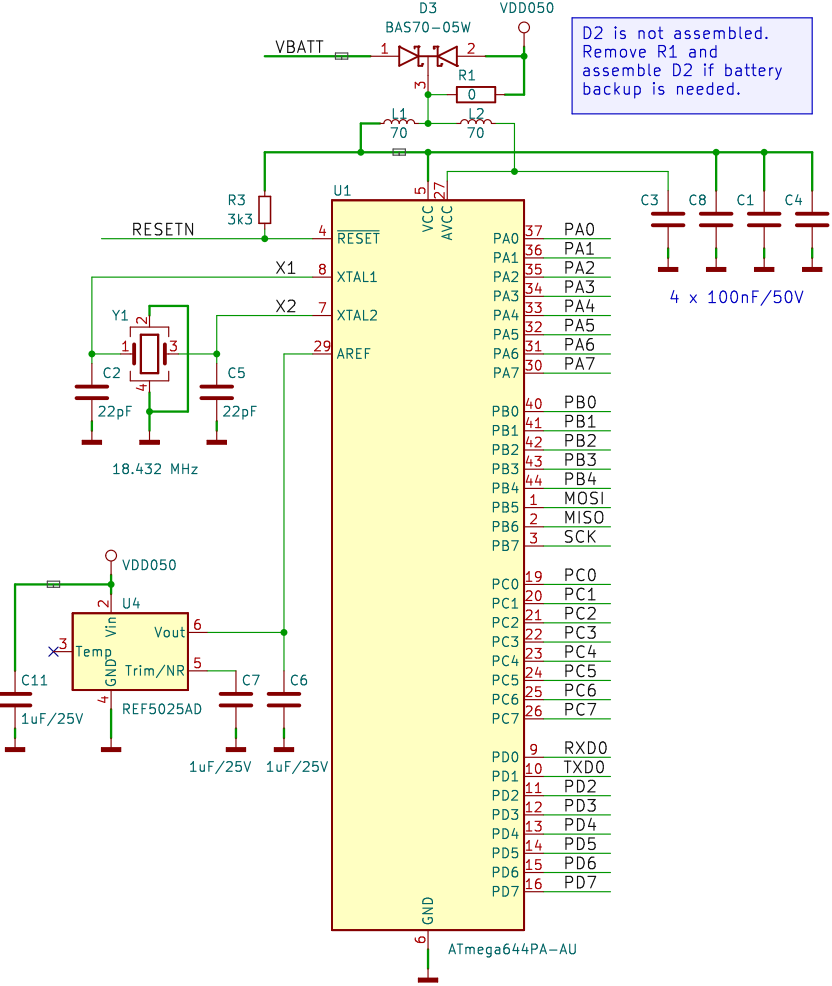
All inductors unless otherwise noted: BLM15AG700SN1D (70Ω @ 100MHz, 600mA 150mΩ 0402).  
All capacitors sustain 50V unless otherwise noted.  
This version can operate from 3.0 V .. 5.0 V.  
Operation down to 2.7 V is possible, if the RS485 interface is unused.

Pin35 was  
unconnected in  
earlier versions.



The voltage regulator U5 may be used for Vin between 4V and 60V but note that D1 limits the voltage to 28V nominally and the capacitors sustain only 50V. R5 and R7 should be removed if the operating voltage is supplied externally. R9 is unassembled for 5V operation. Assemble 82k for 3.3V operation. L4 is calculated for 100mA load. If the load is much higher, a suitable inductor L5 may be added manually.

RS485_A	37	J1
RS485_B	36	
PB4	35	
VBATT	34	
RESETN	33	
PB1	32	
SCK	31	
PB2	30	
PB3	29	
MISO	28	
MOSI	27	
PD2	26	
PD3	24	
PD4	23	
PD5	22	
PD6	21	
PD7	20	
PC0	19	
PC1	18	
PC2	17	
PC3	16	
PC4	15	
PC5	14	
PC6	13	
PC7	12	
PA7	10	
PA6	9	
PA5	8	
PA4	7	
PA3	6	
PA2	5	
PA1	4	
PA0	3	
X2	2	
X1	1	



V1.2 for production and assembly at JLCPCB	
Michael Krämer	
Sheet: /	
File: RS485_V12.kicad_sch	
<b>Title: ATMEGA644PA-AU Board with RS485 Interface</b>	
Size: A4	Date: 2023-11-12
KiCad E.D.A. kicad 7.0.8	Rev: V1.2
	Id: 1/1