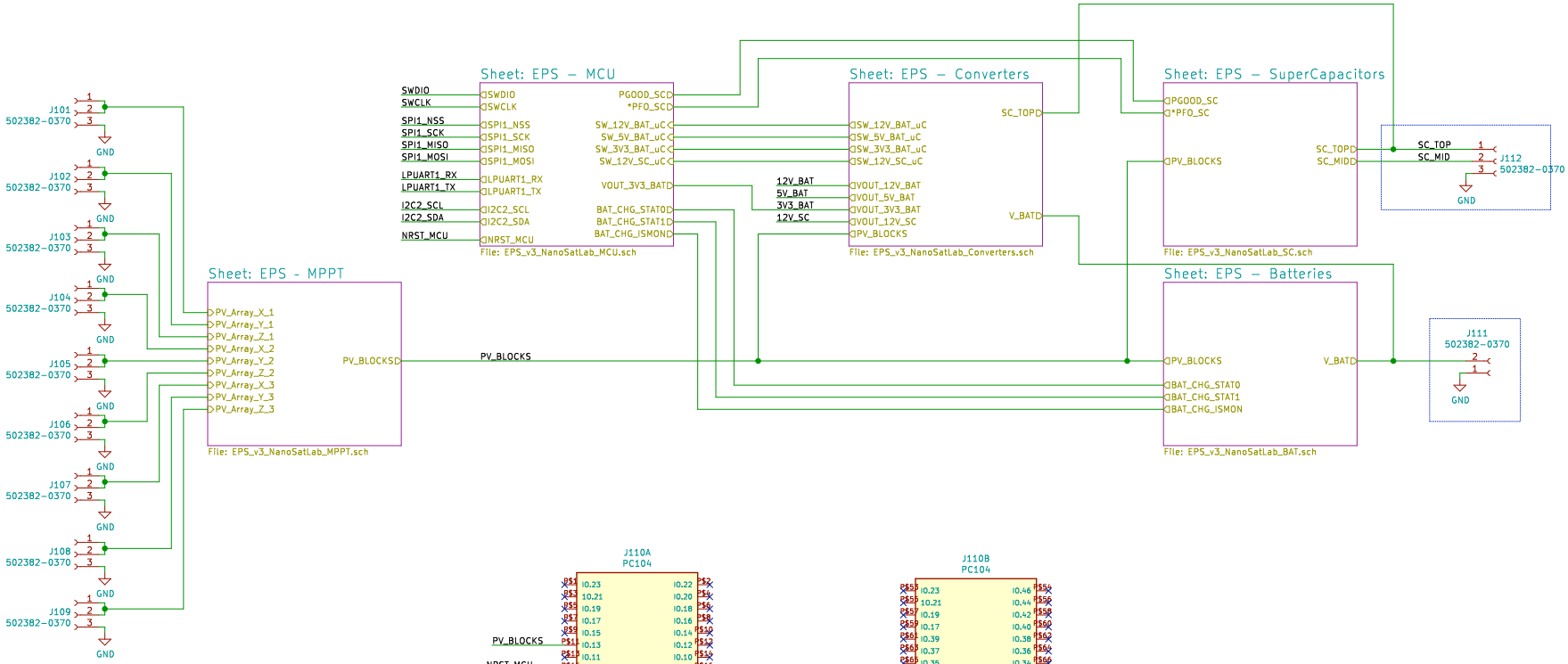
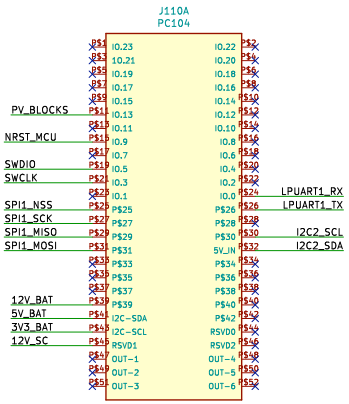
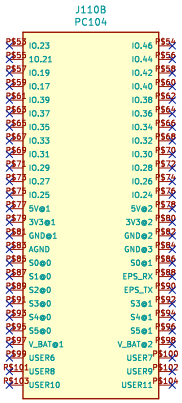
Electrical Power System (EPS) SuperCapacitors v3.0

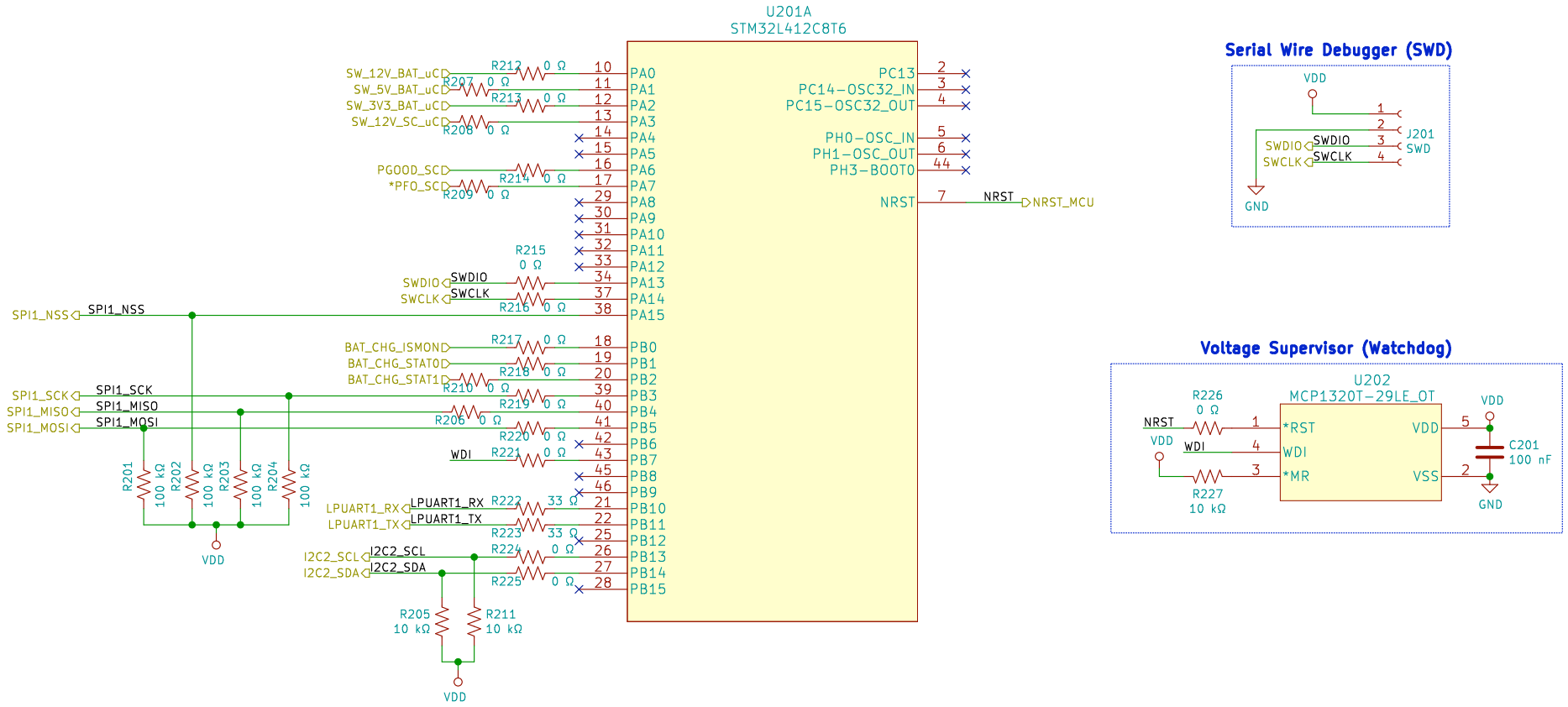






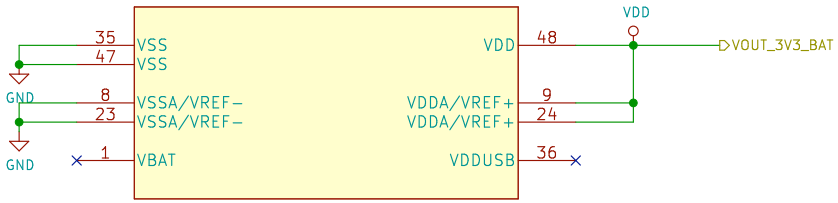
Q2-2020/2021		
Introduction to Research (IR)		
Mohamed Benomar		
NanoSat Lab		
Sheet: /		
File: EPS_v3_NanoSatLab.sch		
Title: Electrical Power System (EPS)		
Size: A3	Date:	**Rev: v3.0**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 1/6

Microcontroller (µC)



Serial Wire Debugger (SWD)

Voltage Supervisor (Watchdog)



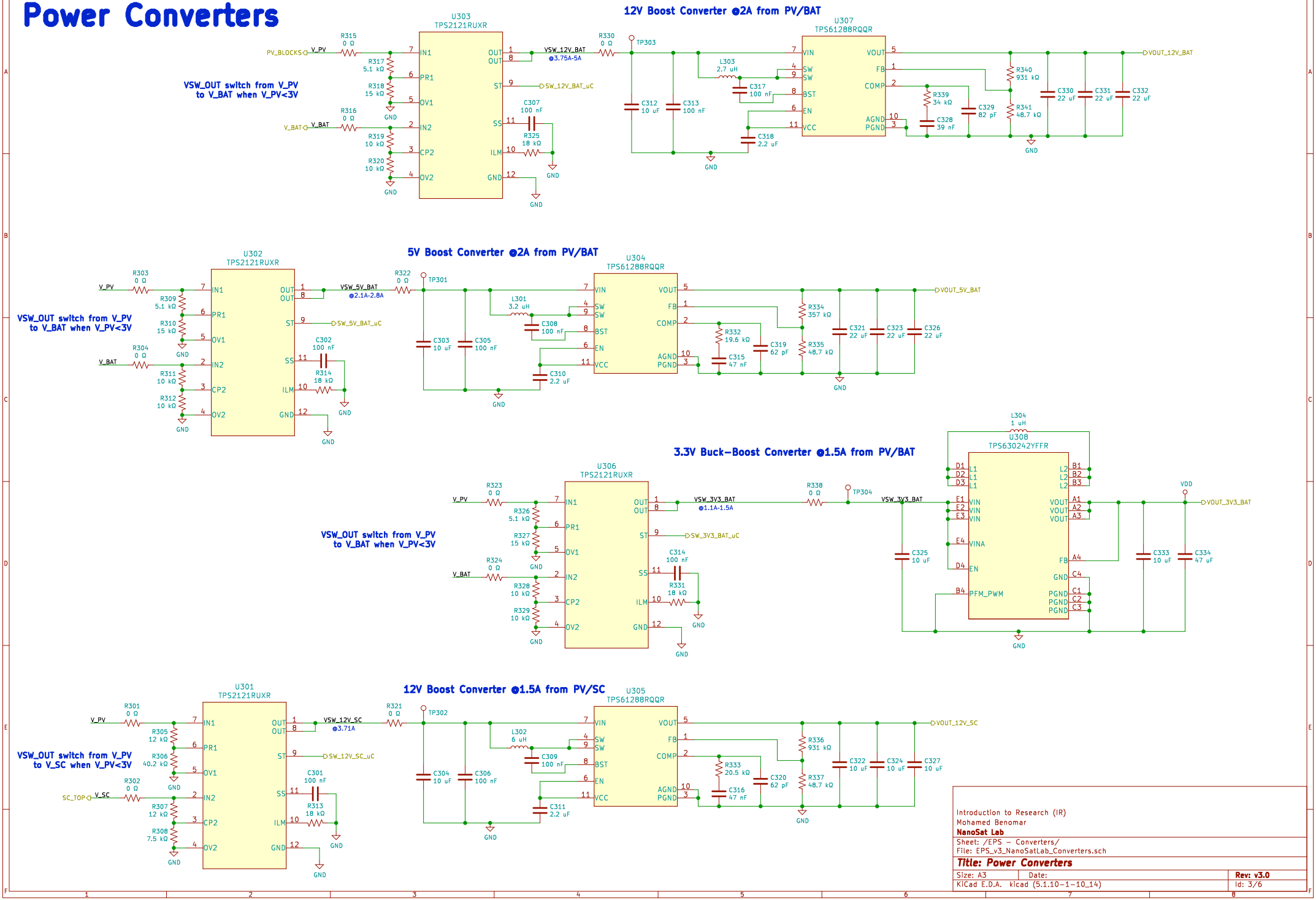
Introduction to Research (IR)
Mohamed Benomar
NanoSat Lab

Sheet: /EPS - MCU/
File: EPS_v3_NanoSatLab_MCU.sch

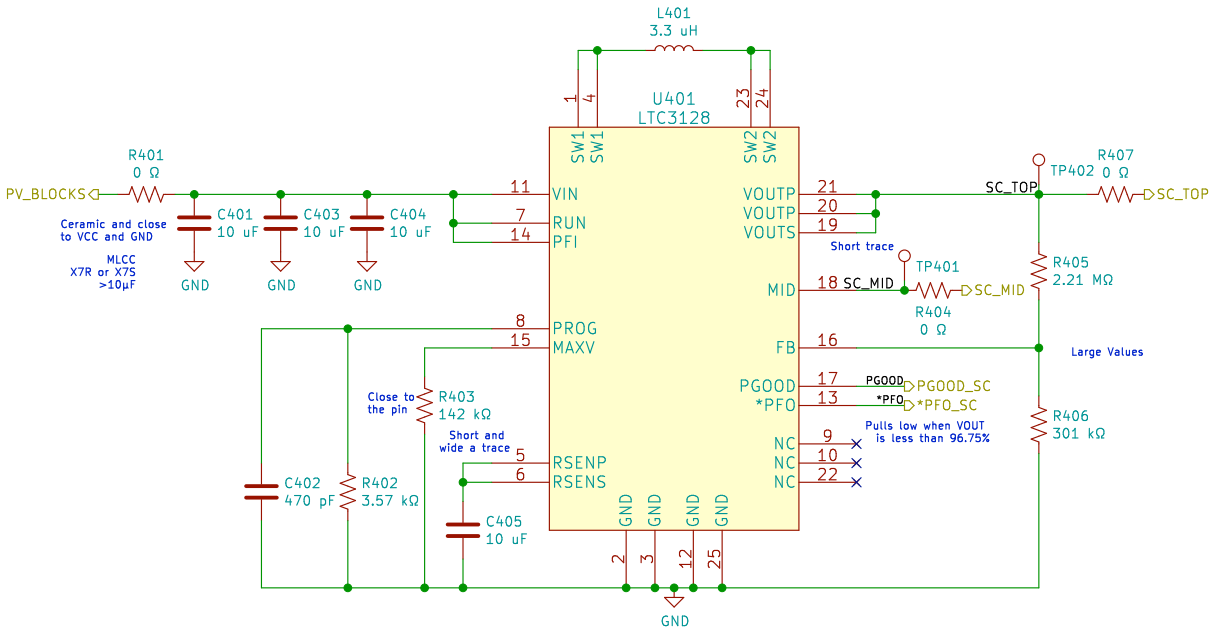
Title: Microcontroller - NanoSat Lab EPS

Size: A4	Date:	**Rev: v3.0**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 2/6

Power Converters



SuperCapacitor Charger



Introduction to Research (IR)
Mohamed Benomar
NanoSat Lab

Sheet: /EPS – SuperCapacitors/
File: EPS_v3_NanoSatLab_SC.sch

Title: SuperCapacitors Charger

Size: A4	Date:	**Rev: v3.0**
KiCad E.D.A. kicad (5.1.10-1-10_14)		Id: 4/6

Battery Charger

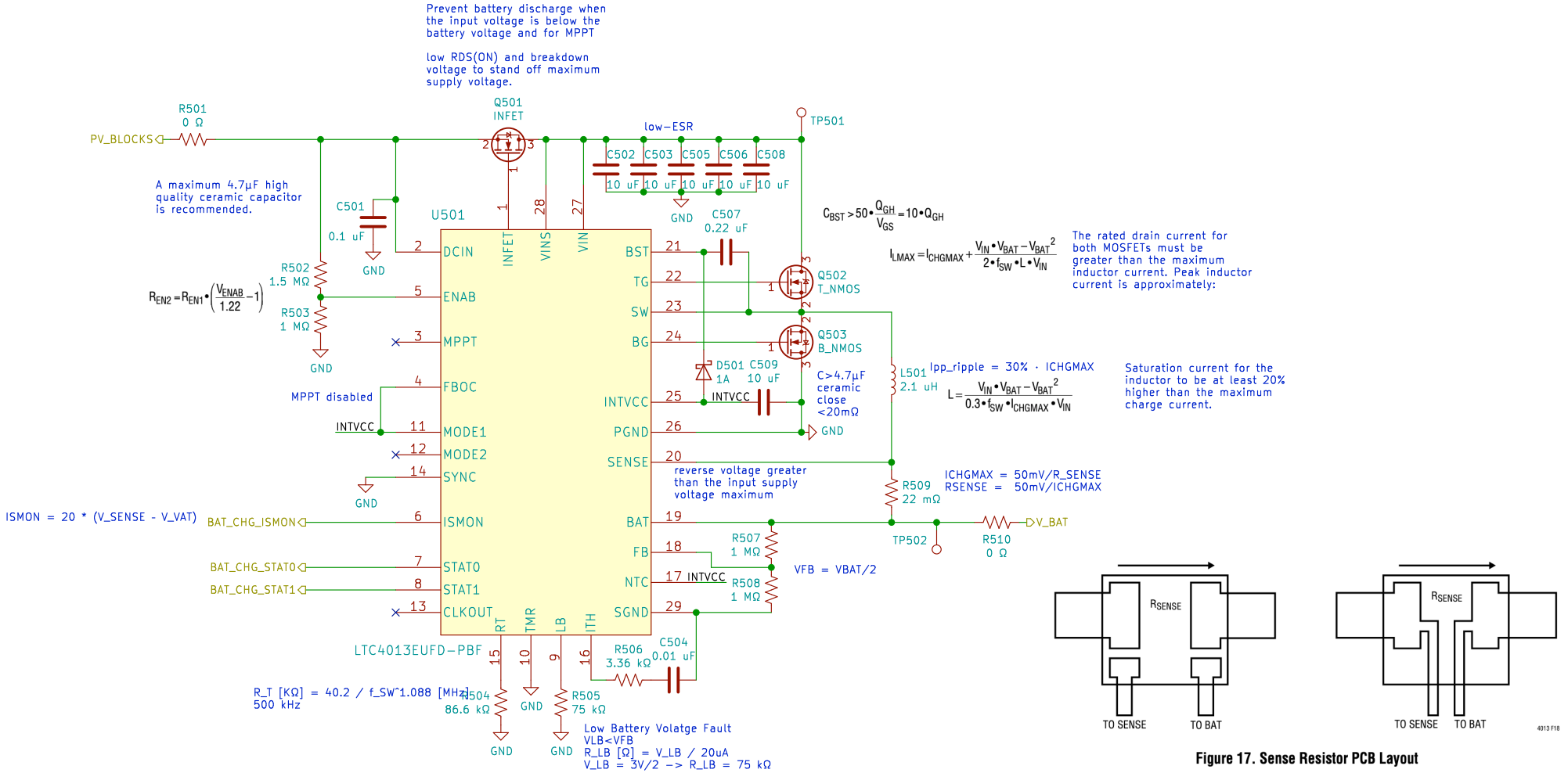
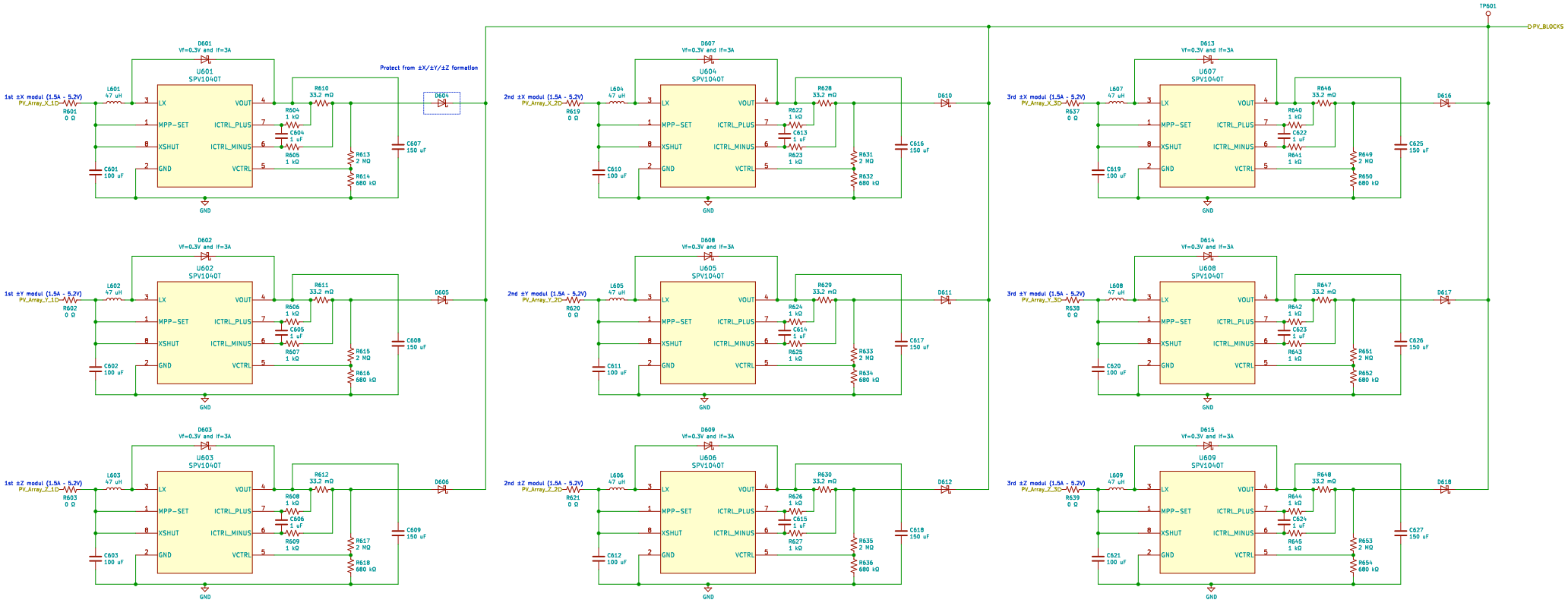


Figure 17. Sense Resistor PCB Layout

Introduction to Research (IR)	
Mohamed Benomar	
NanoSat Lab	
Sheet: /EPS – Batteries/	
File: EPS_v3_NanoSatLab_BAT.sch	
Title: Battery Charger	
Size: A4	Date:
KiCad E.D.A. kicad (5.1.10-1-10_14)	**Rev: v3.0**
	Id: 5/6

MPPT Converters and PV Cells



Introduction to Research (IR)	
Mohamed Benomar	
NanoSat Lab	
Sheet: /EPS - MPPT/	
File: EPS_v3_NanoSatLab_MPPT.sch	
Title: MPPT Converters and PV Cells	
Size: A2	Date:
KiCad E.D.A. kicad (5.1.10-1-10_14)	Rev: v3.0
	Id: 6/6