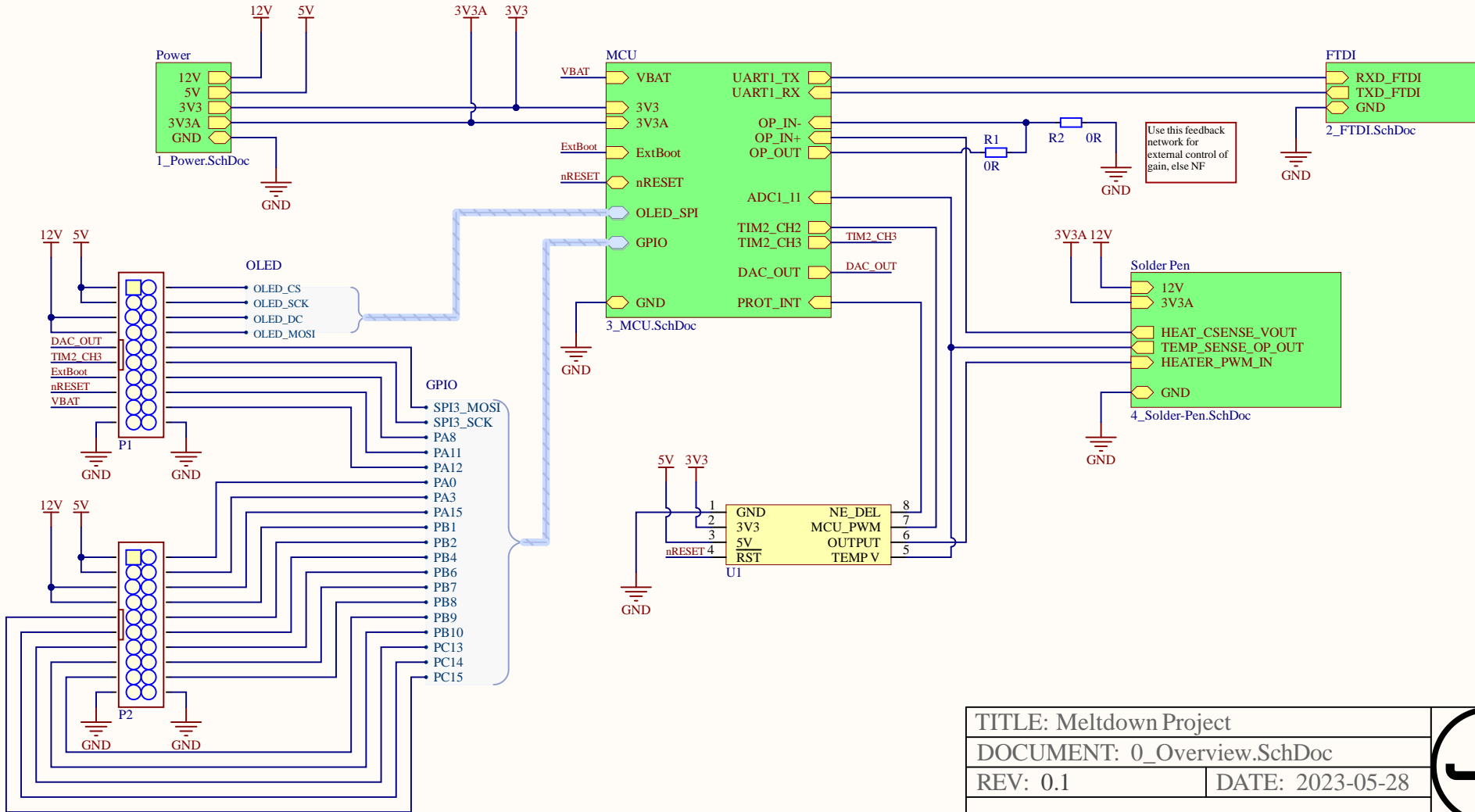
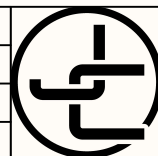


Meltdown Solder Station

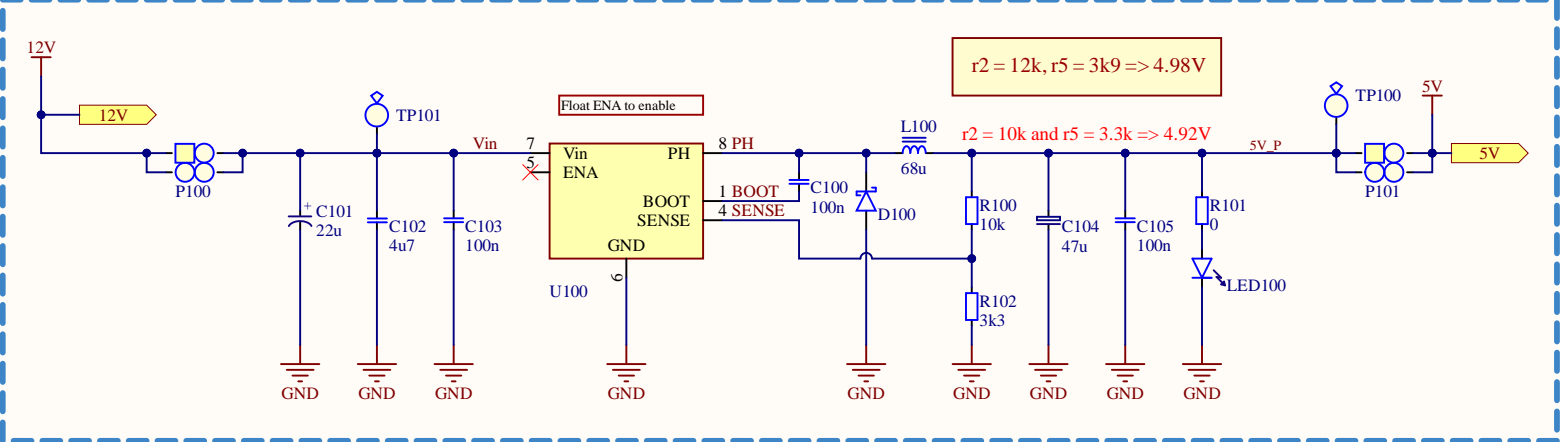


TITLE: Meltdown Project	
DOCUMENT: 0_Overview.SchDoc	
REV: 0.1	DATE: 2023-05-28

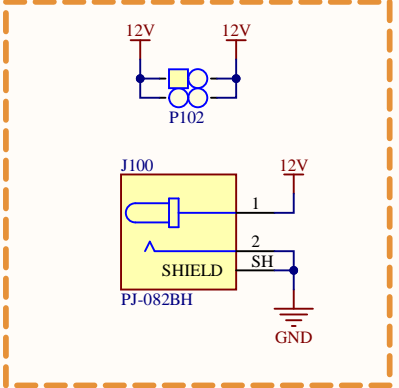


[1] Power

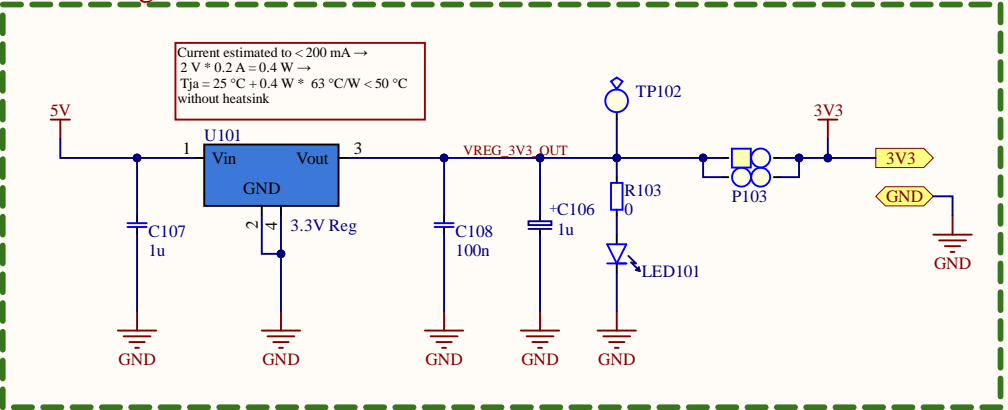
Switching V-Reg to 5V



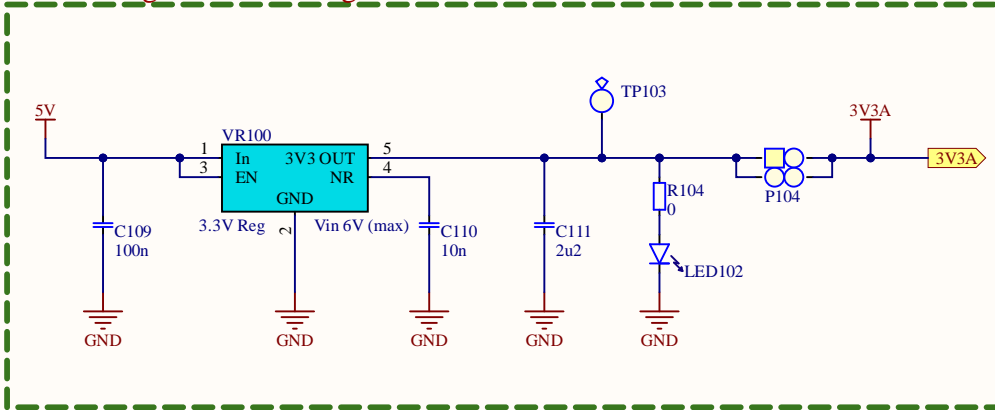
12V Input



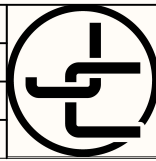
LDO V-Reg to 3.3V



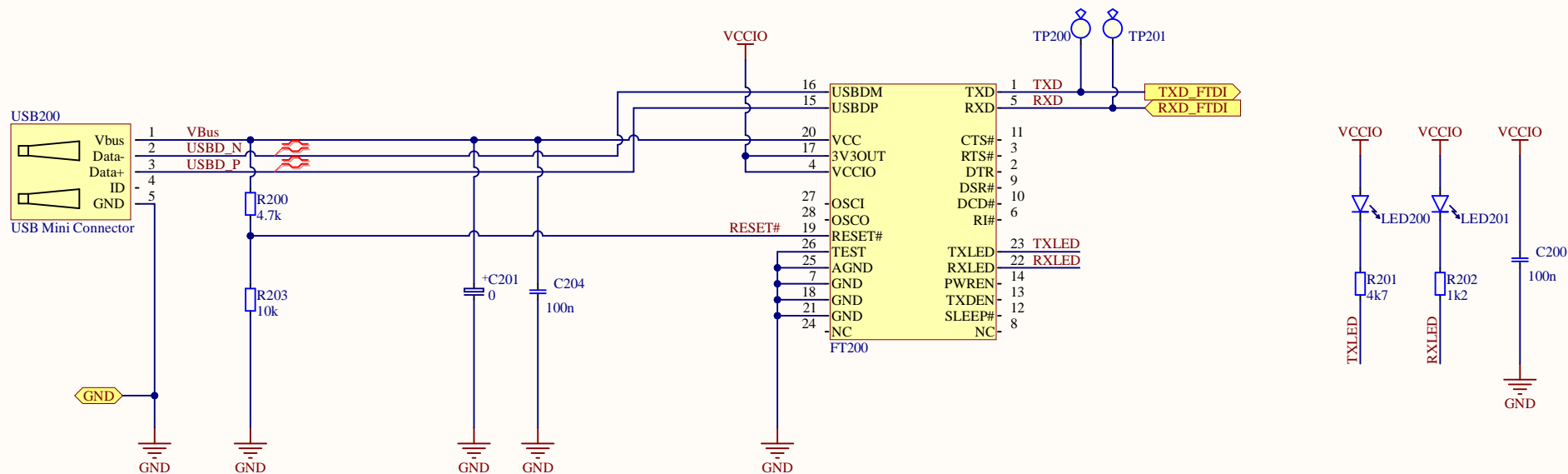
LDO V-Reg to 3.3V Analog



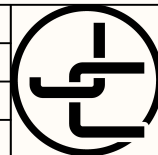
TITLE: Meltdown Project	
DOCUMENT: 1_Power.SchDoc	
REV: 0.1	DATE: 2023-05-28



[2] FTDI



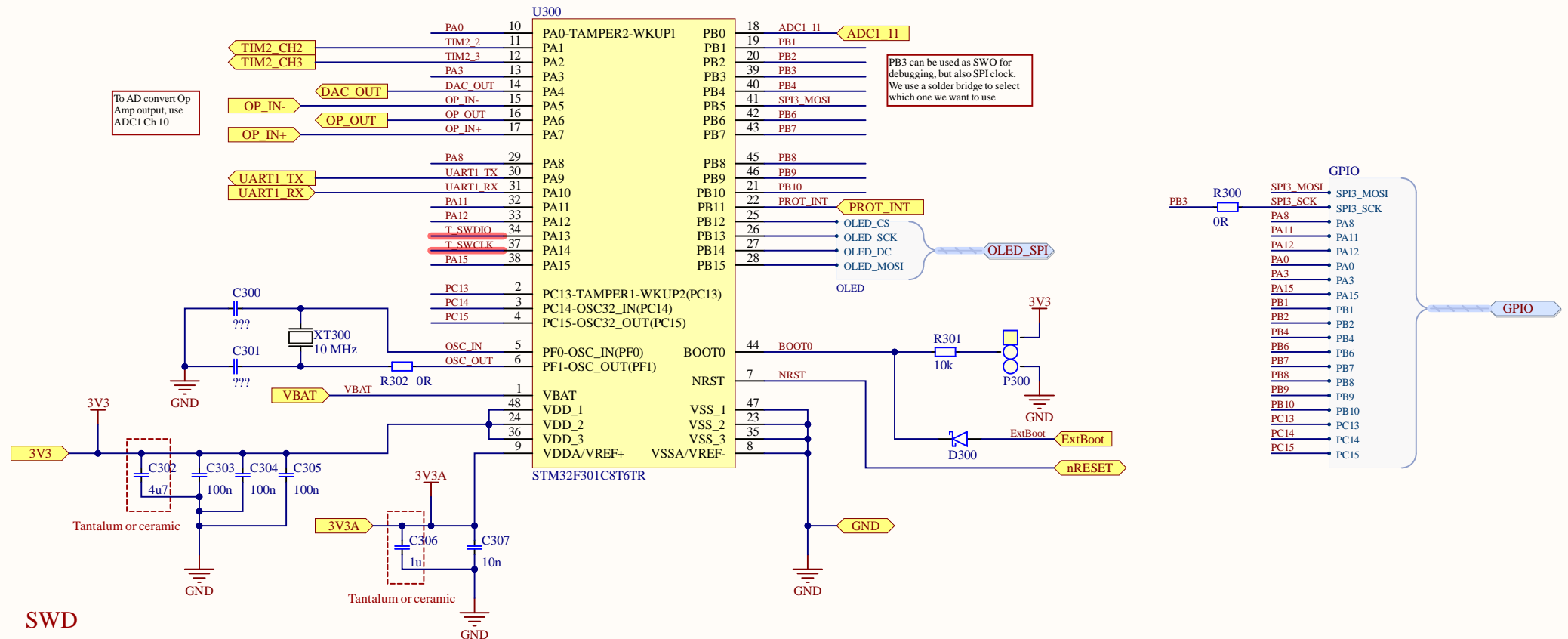
TITLE: Meltdown Project
DOCUMENT: 2_FTDI.SchDoc
REV: 0.1
DATE: 2023-05-28



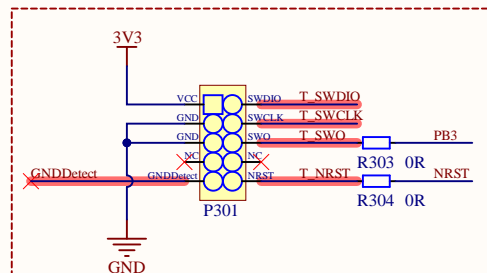
[3] MCU

TODO

- Check nRST, might be driven from multiple? connect to interface board
- Use a Pi-filter for VDDA?



SWD



TITLE: Meltdown Project
DOCUMENT: 3_MCU.SchDoc
REV: 0.1
DATE: 2023-05-28



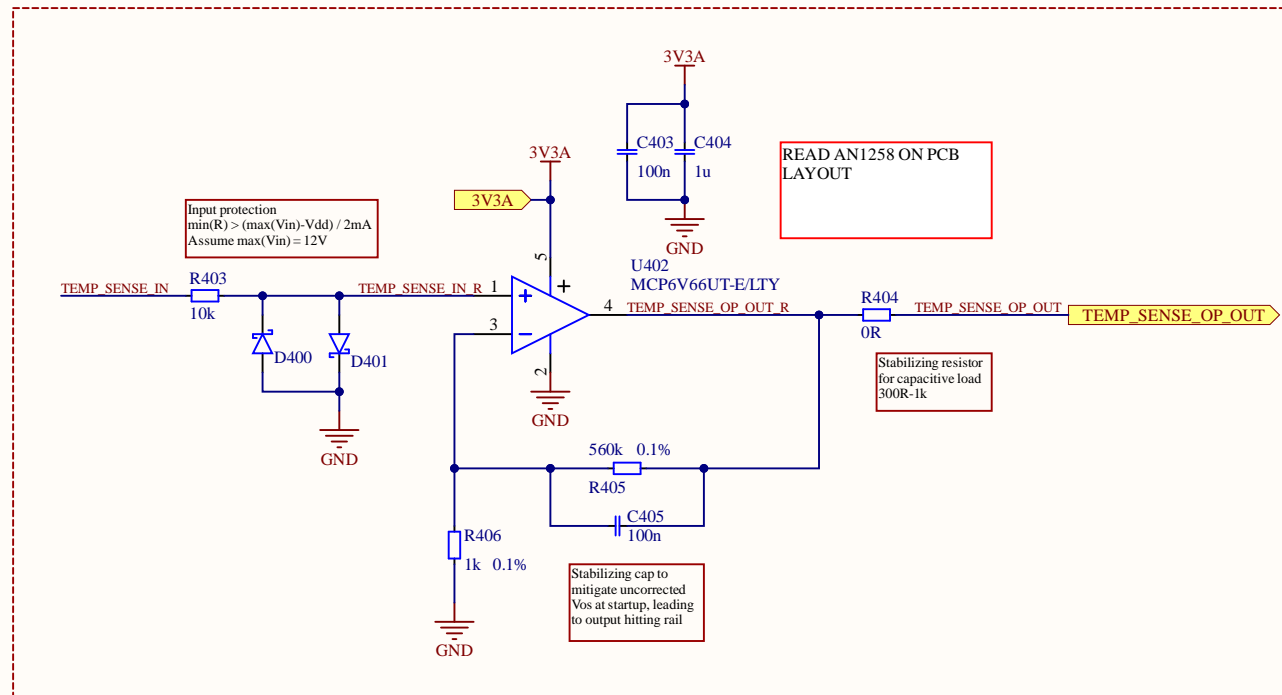
B

C

- D

The diagram illustrates a MOSFET driver and a current sense amplifier circuit. The MOSFET driver (left) uses an MCP1416 op-amp to drive a 4905S IRL MOSFET, switching a 12V load. The current sense amplifier (right) uses a TMCS1101 to measure the MOSFET's drain current, outputting a 0-5V signal. Annotations include component values, pin connections, and performance notes like "Wait $\geq 25\text{ms}$ before output is valid" and "BW: -3dB @ 80kHz".

Diagram illustrating the connection for the RT pin of a J400 Weller RT tip. The circuit includes a J400 Weller RT tip, a P400 power source, and a GND connection. The RT pin is connected to the P400 power source. The SENSE pin is connected to the HEAT_CSENSE_OUT and TEMP_SENSE_IN lines. The HEAT pin is connected to the HEAT_CSENSE_OUT and TEMP_SENSE_IN lines.



TITLE: Meltdown Project	
DOCUMENT: 4_Solder-Pen.SchDoc	
REV: 0.1	DATE: 2023-05-28

