

Interface Signal	ICSP TARGET	UPDI TARGET
CDC TX	UART TX	UART TX
CDC RX	UART TX	UART TX
DBG0	DAT	UPDI
DBG1	CLK	GPO
DBG2	GPO	GPO
DBG3	MCLR	RESET
VCC	-	-

**J100:** Cut-strip used for full separation of target power from the level shifters and on-board regulators.  
 - For current measurements using an external power supply, this strip could be cut for more accurate measurements. Leakage back through the switch is in the micro ampere range.

**J101:** This is footprint for a 1x2 100nA pitch pin-header that can be used for easy current measurement and current limit.  
 - Cut the track between the holes, and mount a pin-header

**MIC5353:**  
 Vin: 2.0V to 6V  
 Vout: 0.5V to 5.1V  
 Iout: 500mA  
 Dropout (typical): 50mV @ 150mA, 160mV @ 500mA  
 Accuracy: 2% initial and current limit  
 Internal shutdown and current limit  
 Maximum output voltage is limited by the input voltage and the dropout voltage in the regulator.  
 (V<sub>max</sub> = V<sub>in</sub> - dropout)

**DEBUGGER TESTPOINT:**  
 SWCLK  
 SWDIO  
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 Status Array

**DEBUGGER TESTPOINT:**  
 TCK GND  
 TDO MCLR  
 TMS SRESET  
 TDI VDD  
 TDP GND  
 SRESET  
 VCC\_PV3V3  
 SWDIO

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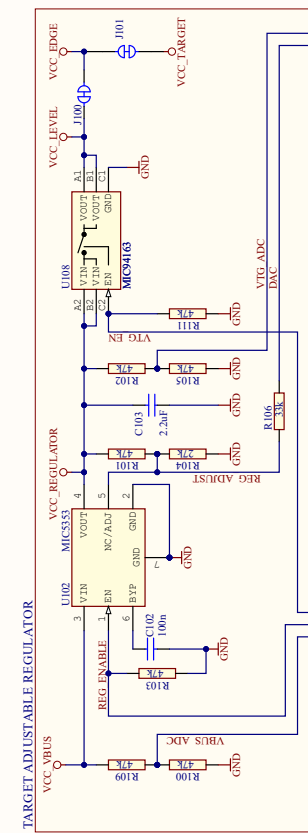
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**Adjustable output and limitations:**  
 - The DEBUGGER can adjust the output voltage of the regulator between 1.25V and 5.1V in the target.  
 - The voltage output is limited by the input (USB), which can vary between 4.40V to 5.25V.  
 - The level shifters have a minimal voltage level of 1.65V and will limit the minimum operating voltage allowed for the target.  
 - The MIC5353 has a minimal voltage level of 1.70V and will limit the minimum voltage delivered to the target.  
 - Firmware configuration will limit the voltage range to be within the target specification.

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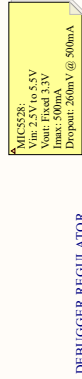
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DBG3	MCLR	RESET
VCC	-	-



**MIC5353:**  
 Vin: 2.0V to 6V  
 Vout: 0.5V to 5.1V  
 Iout: 500mA  
 Dropout: 20mV @ 500mA

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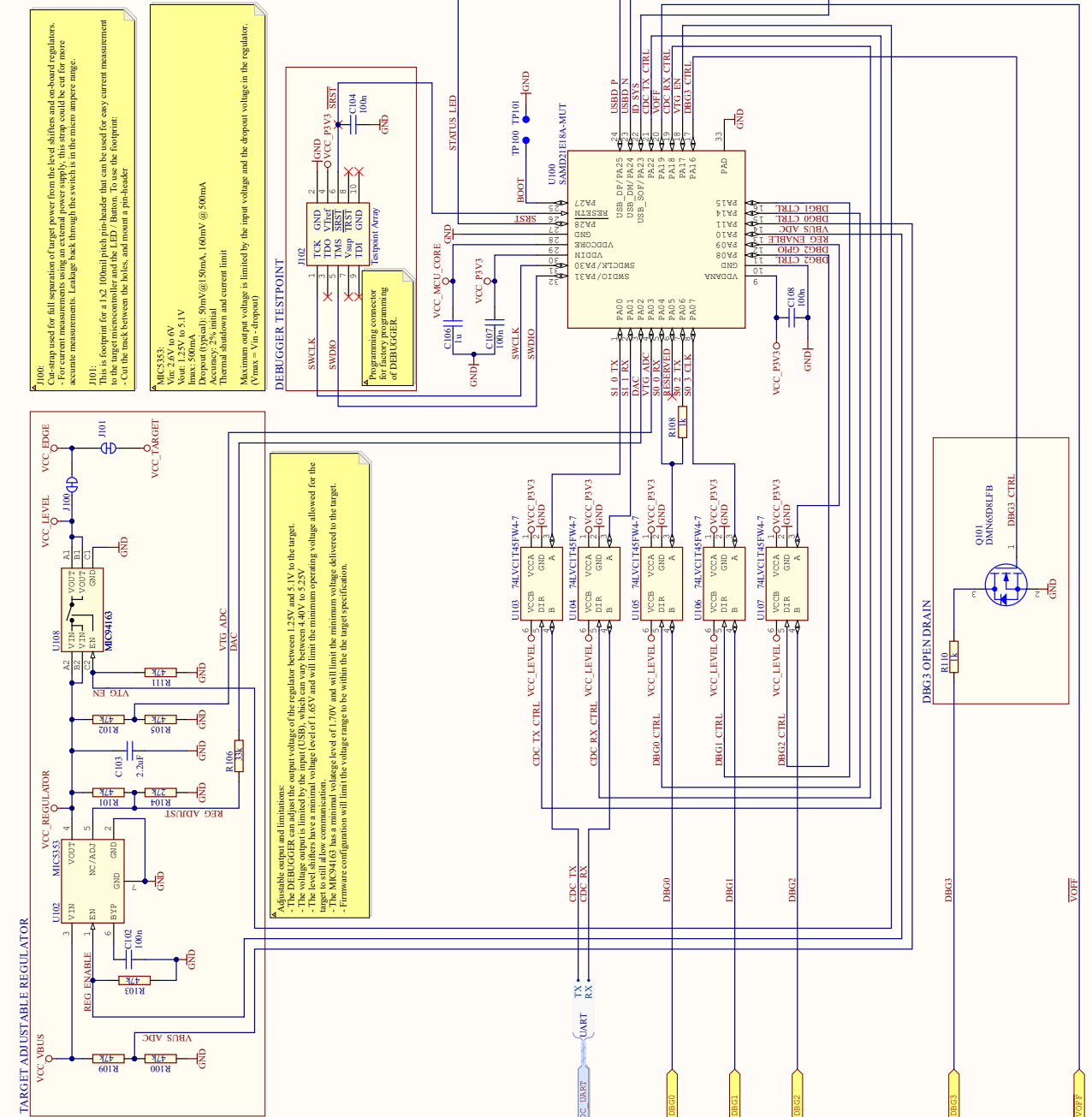
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Drawn By: Mership Norway  
 Engineer: HN

**MICROCHIP**

Project Title: PIC16F18446 Curiosity Nano  
 Sheet Title: Debugger  
 Size: A3  
 PCB Assembly Number: A06-1320  
 PCB Number: A06-2663  
 PCB Revision: 6

Designed with **Altium**  
 Altium.com  
 Date: 25/02/2020  
 Page: 3 of 4