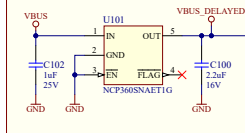


Nano Debugger 3V3 Example

DEBUGGER SIDE

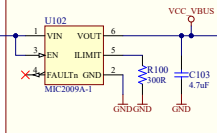
TARGET SIDE

VBUS OVP AND START-UP DELAY



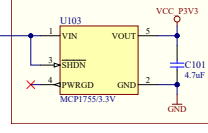
VBUS OVERVOLTAGE PROTECTION:
 Vin: 1.2V to 20V
 Overvoltage Lockout Threshold: 6.25V
START-UP DELAY: 4ms

VBUS CURRENT-LIMIT



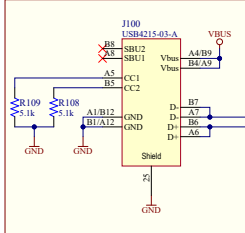
CURRENT LIMIT:
 With R100 = 300ohm, the current through the power switch MIC2009A-1 is limited to 507mA (min) - 687mA (typ) - 877mA (max).

DEBUGGER REGULATOR

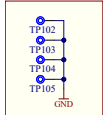


MCP1755:
 Vin: 3.6V to 16V
 Vout: Fixed 3.3V
 Imax: 300mA
 Dropout: 500mV @ 300mA

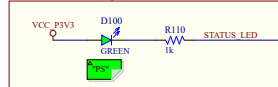
DEBUGGER USB-C CONNECTOR



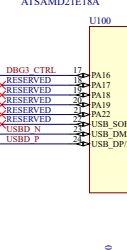
MOUNTING HOLES



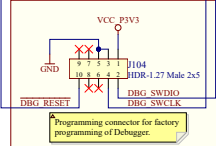
DEBUGGER POWER/STATUS LED



DEBUGGER ATSM21E18A

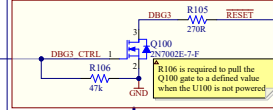


CORTEX 10-PIN HEADER



Programming connector for factory programming of Debugger.

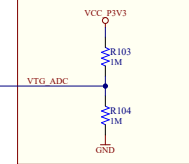
RESET OPEN DRAIN



R106 is required to pull the Q100 gate to a defined value when the U100 is not powered.

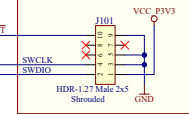
Interface Signal	SWD TARGET	UPDI TARGET	ICSP™ TARGET
CDC TX	UART RX	UART RX	UART RX
CDC RX	UART TX	UART TX	UART TX
DBG0	SWDIO	UPDI	DAT
DBG1	SWCLK	N/A	CLK
DBG2	N/A	N/A	N/A
DBG3	RESET	RESET	MCLR

TARGET VOLTAGE MEASUREMENT

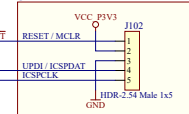


VCC_P3V3 is supplied by the debugger 3.3V regulator and supplies power to the connected target through the Cortex and SIL headers.

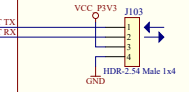
CORTEX 10-PIN HEADER



SIL PIN HEADER



UART PIN HEADER



Project Owner: JB
 TL
 PCB Layout Contact: TL
 Part Number: N/A
 Project Title: Nano Debugger 3V3 Example
 Variant: Default Assembly
 Sheet Name: Nano Debugger 3V3 Example
 Size: A3
 SCL#:#
 DCL#:#
 Date: 08.05.2026
 Rev: 1
 Sheet: 1 of 2
 Altium.com

MICROCHIP

©2026 Espressif Systems