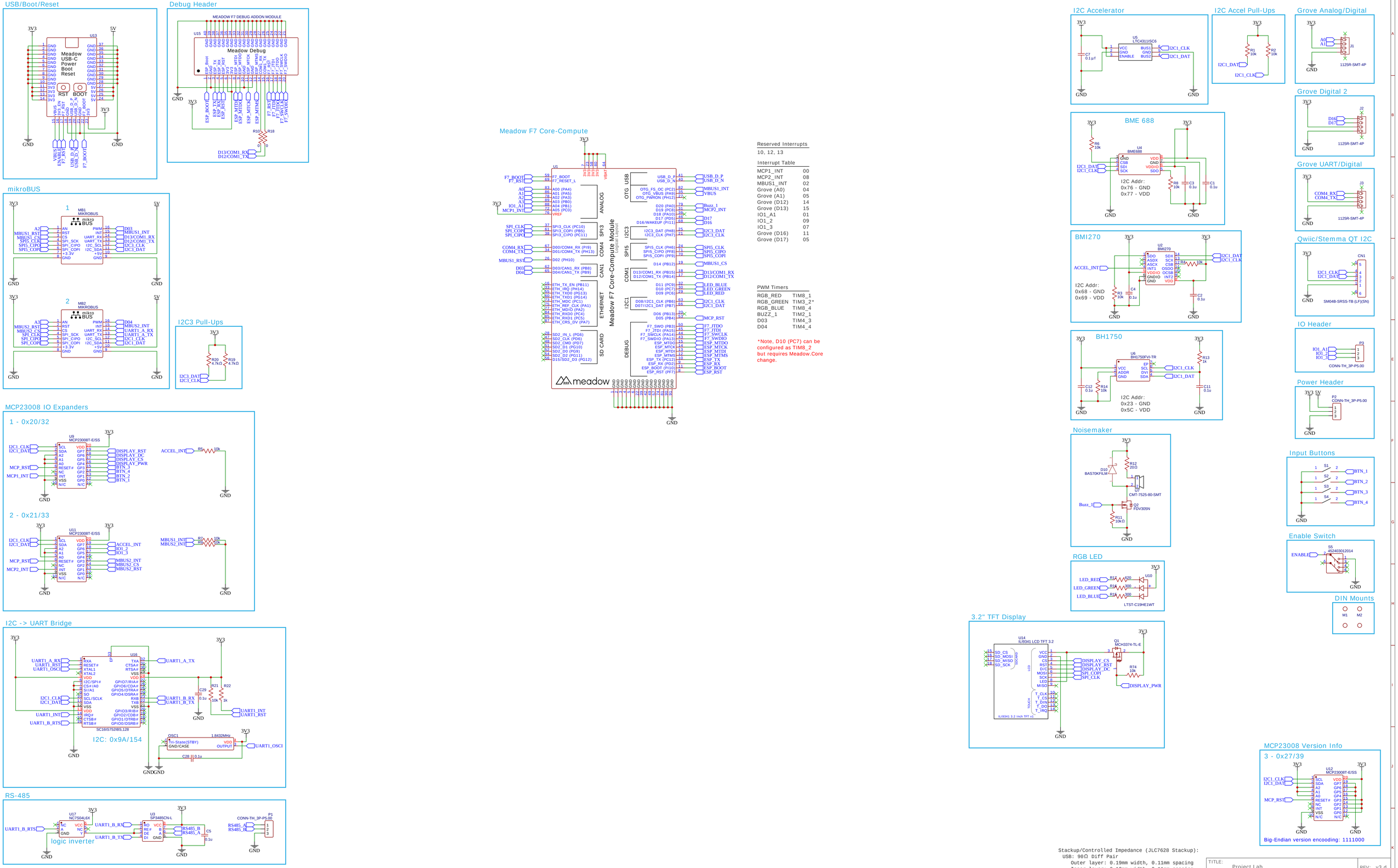
USB/Boot/Reset
Debug Header
MEADOW F7 DEBUG ADDON MODULE
Meadow Debug
mikroBUS
I2C3 Pull-Ups
MCP23008 IO Expanders
1 - 0x20/32
2 - 0x21/33
I2C -> UART Bridge
I2C: 0x9A/154
RS-485
logic inverter
Meadow F7 Core-Compute
Meadow F7 Core-Compute Module
Logical Layout
ANALOG
SPI3
COM4
CAN1
ETHERNET
SD CARD
OTG_USB
SPI5
I2C3
COM1
I2C1
DEBUG
Reserved Interrupts
10, 12, 13
Interrupt Table
MCP1_INT 00
MCP2_INT 08
MBUS1_INT 02
Grove (A0) 04
Grove (A1) 05
Grove (D12) 14
Grove (D13) 15
IO1_A1 01
IO1_2 09
IO1_3 07
Grove (D16) 11
Grove (D17) 05
PWM Timers
RGB_RED TIM8_1
RGB_GREEN TIM3_2*
RGB_BLUE TIM8_4
BUZZ_1 TIM2_1
D03 TIM4_3
D04 TIM4_4
*Note, D10 (PC7) can be configured as TIM8_2 but requires Meadow.Core change.
I2C Accelerator
I2C Accel Pull-Ups
Grove Analog/Digital
Grove Digital 2
BME 688
I2C Addr:
0x76 - GND
0x77 - VDD
Grove UART/Digital
BMI270
I2C Addr:
0x68 - GND
0x69 - VDD
Qwiic/Stemma QT I2C
BH1750
I2C Addr:
0x23 - GND
0x5C - VDD
IO Header
Noisemaker
Power Header
Input Buttons
RGB LED
Enable Switch
3.2" TFT Display
DIN Mounts
MCP23008 Version Info
3 - 0x27/39
Big-Endian version encoding: 1111000
Stackup/Controlled Impedance (JLC7628 Stackup):
USB: 90Ω Diff Pair
Outer layer: 0.19mm width, 0.11mm spacing
Inner layer: 0.13mm width, 0.11mm spacing
WILDERNESS LABS
TITLE: Project Lab
REV: v3.d
Company: Wilderness Labs
Sheet: 1/1
Date: 2023.03
Drawn By: bryan costanich