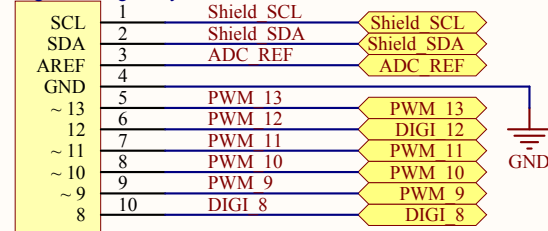


# Arduino Hardware Compatible IO Breakout

## Arduino Digital Higher Byte

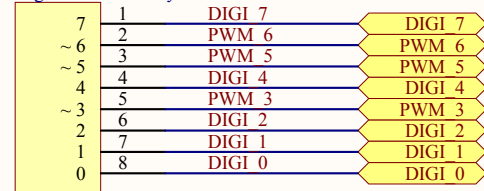
Digital IO Higher Byte1



Arduino Leonardo High Byte

## Arduino Digital Lower Byte

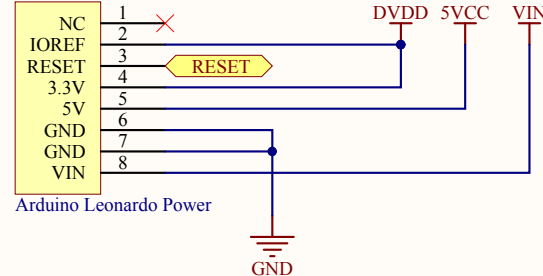
Digital IO Lower Byte1



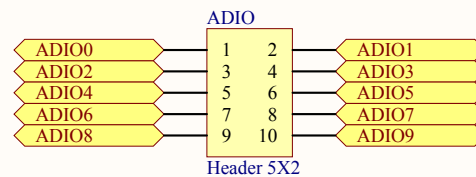
Arduino Leonardo Low Byte

## Arduino Power & Reset

Power & Reset1

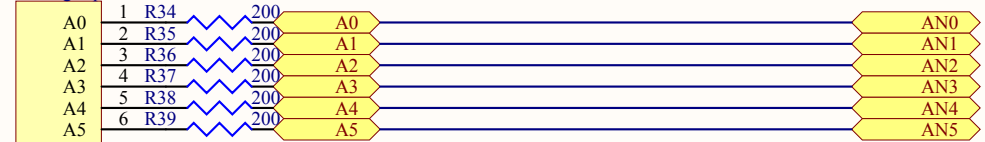


Arduino Leonardo Power



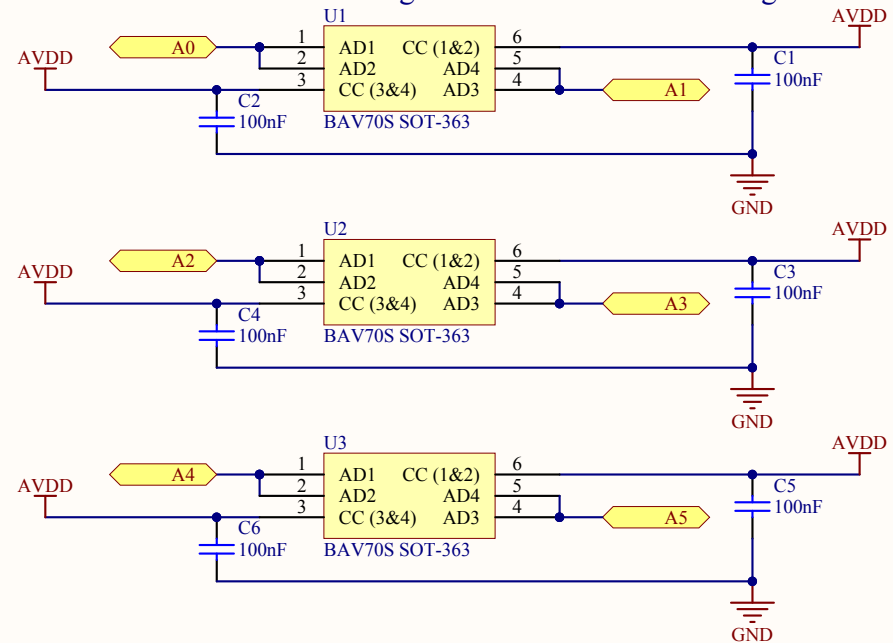
## Arduino Analog Input

Analog Input1



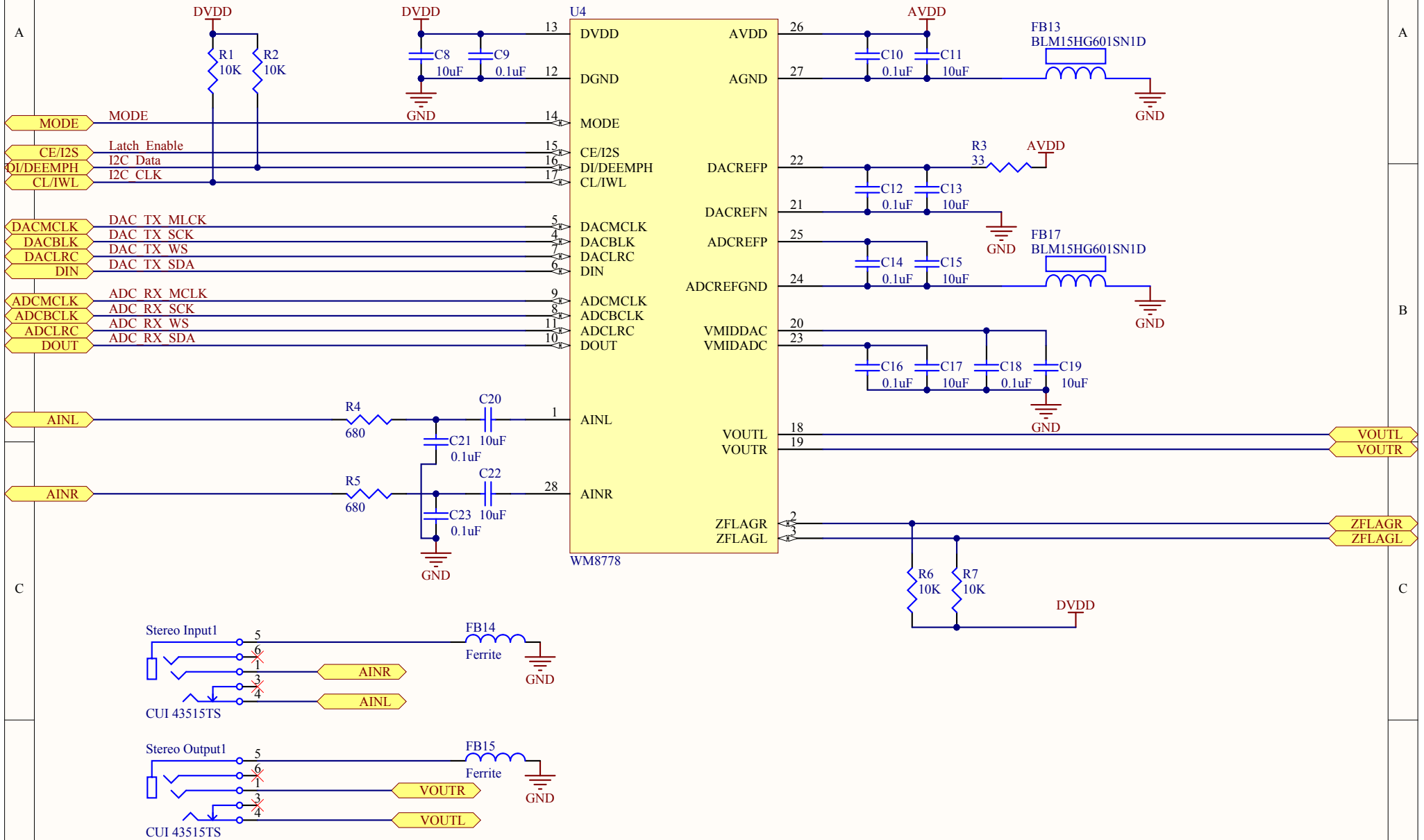
Arduino Leonardo Analog

## Analog 5V Tolerance Level Shifting

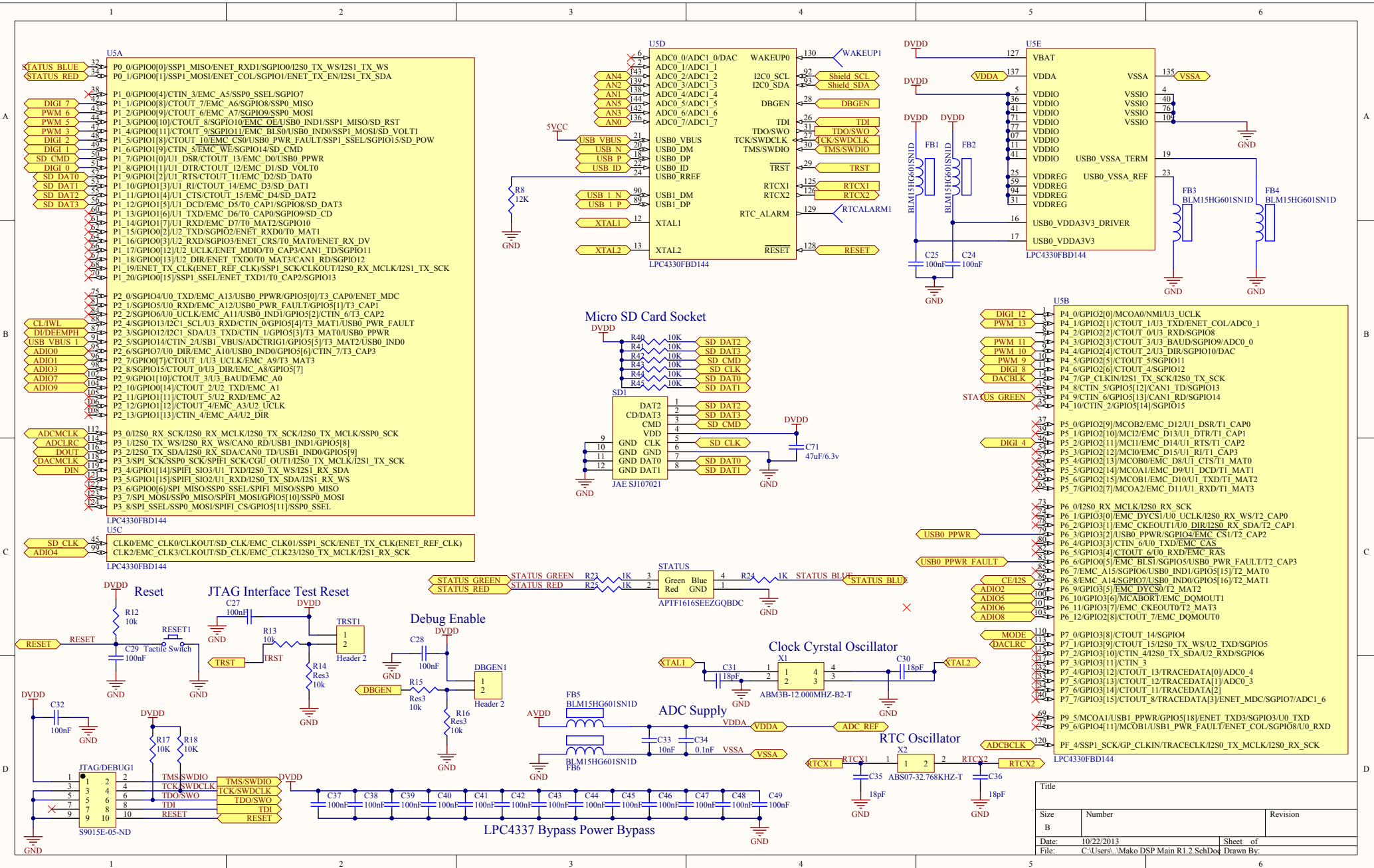


Title		
Size	Number	Revision
A		
Date:	10/22/2013	Sheet of
File:	C:\Users\...\Mako DSP Arduino IO R1.2.Sch	Drawn By:

# WM8778 Stereo Audio Codec I2S/I2C



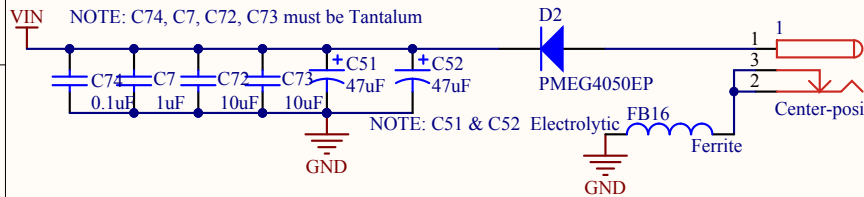
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Size	Number	Revision
A		
Date:	10/22/2013	Sheet of
File:	C:\Users\...\Mako DSP Audio Codec R1.2	Sho Doc By:



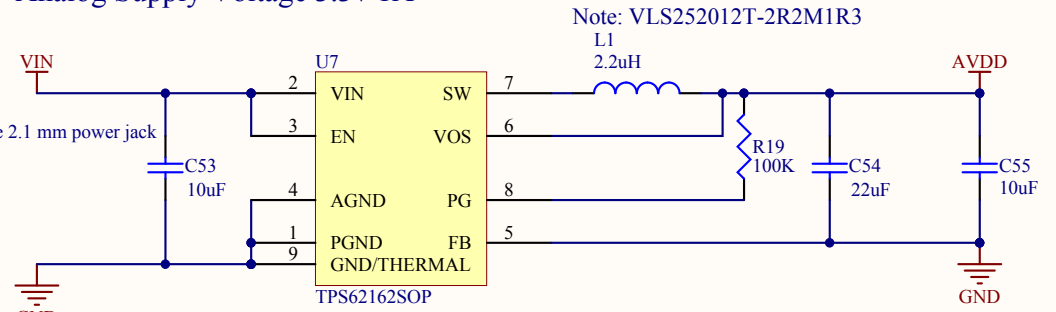
Title		
Size	Number	Revision
B		
Date:	10/22/2013	Sheet of
File:	C:\Users\...Mako DSP Main R1.2 SchDoc	Drawn By:

# 3.3V DVDD and 5V Supply DCDC Converters

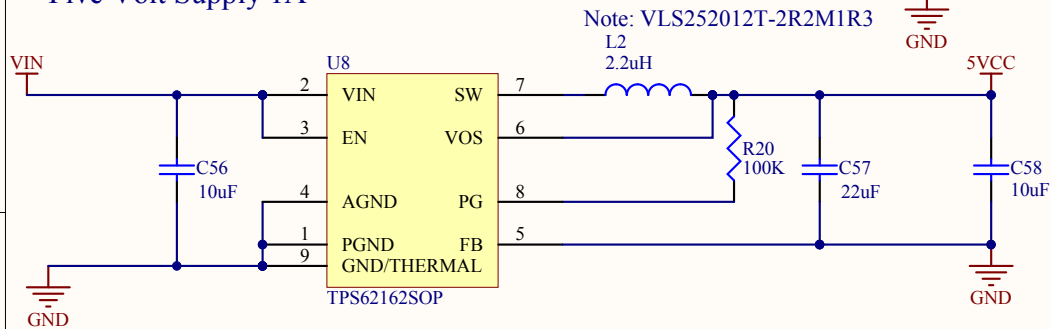
## Input Power 12v w/ Schottky Protection & Filtering



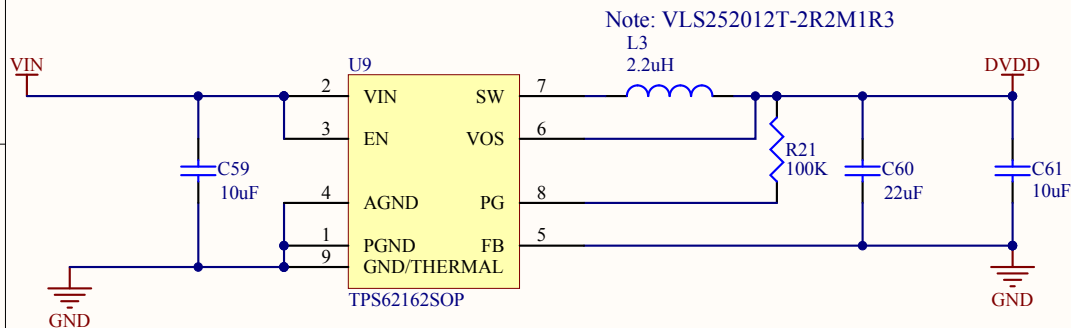
## Analog Supply Voltage 3.3v 1A



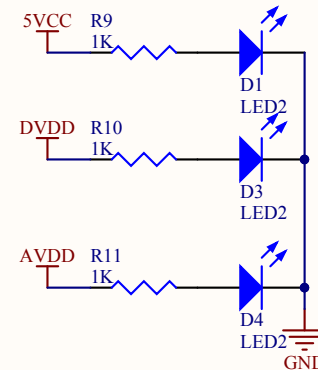
## Five Volt Supply 1A



## Digital Supply Voltage 3.3v 1A

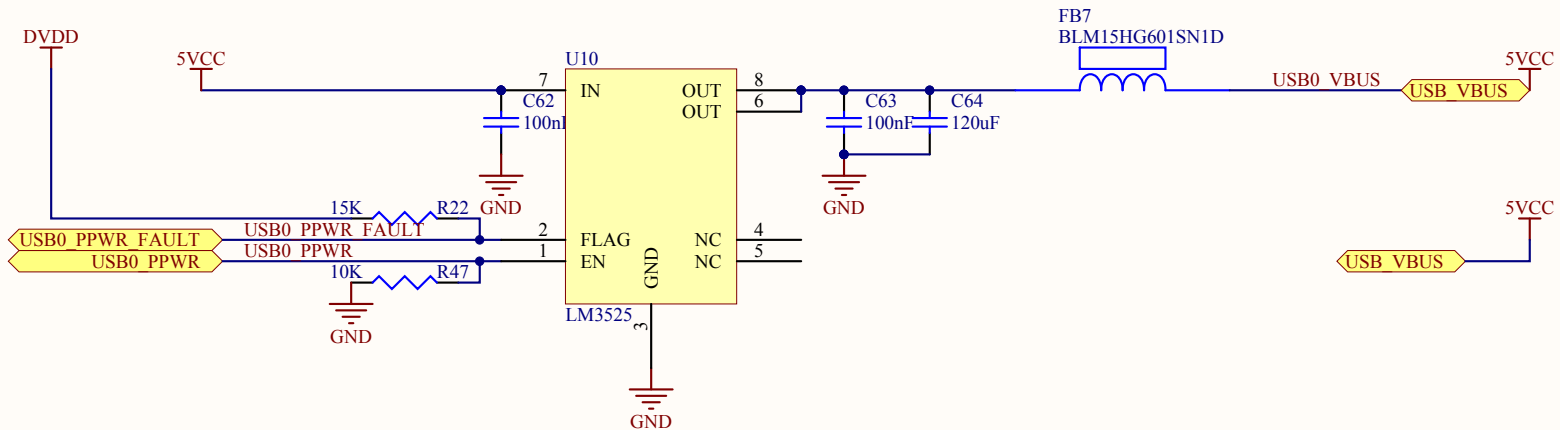


## Supply Indicators

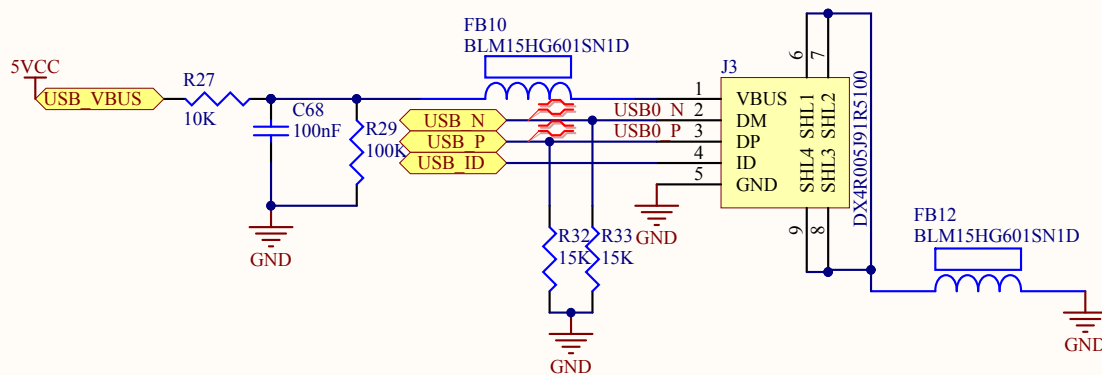


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A		
Date:	10/22/2013	Sheet of
File:	C:\Users\...\Mako DSP Power R1.2.SchDocDrawn By:	

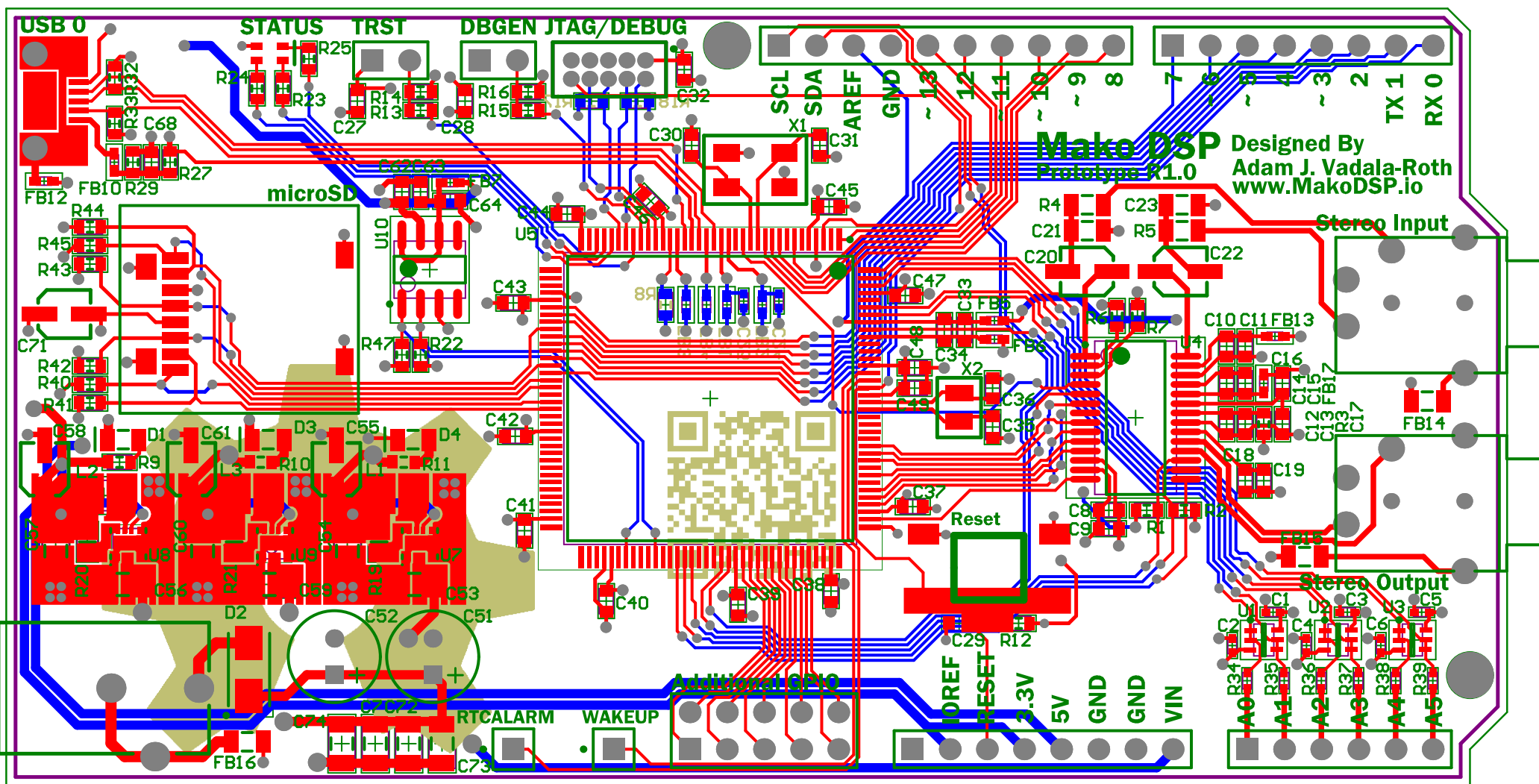
## USB Ports



## USB Module 0 Device/Host/OTG



Title			
Size A	Number		Revision
Date:	10/22/2013	Sheet of	
File:	C:\Users\...\Mako DSP USBRI 2.SchDoc	Drawn By:	



<Parameter Title not found>

Creation Date:	10/22/2013	11:52:14 AM
Print Date:	41569	41569.49465

Footprint	Comment	LibRef	Designator	Description	Quantity
PJ-102AH	Center-positive 2.1 mm power jack	PWR2.5	1	Power jack	1
HDR2X5 Arduino Leonardo Analog 0402 C1206	Header 5X2 Arduino Leonardo Analog Cap Semi Cap Semi	Header 5X2 Arduino Leonardo Analog Cap Semi Cap Semi	ADIO  Analog Input1   C1, C2, C3, C4, C5, C6, C24, C25 C7, C53, C54, C56, C57, C59, C60, C72, C73, C74	Header, 5-Pin, Dual row   Capacitor (Semiconductor SIM Model) Capacitor (Semiconductor SIM Model)	1 1  8 10
1608[0603]	Cap Semi	Cap Semi	C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C30, C31, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C52, C53, C54, C58	Capacitor (Semiconductor SIM Model)	35
Panasonic VS B SM 0805 - gap trimmed CAPC1608L CAPPR2.5- 6.3x5 SM 0805 polarized PMEG4050E P	Cap Semi Cap Semi Cap Semi Cap Pol1 LED2 LED2 Diode	Cap Semi Cap Semi Cap Semi Cap Pol1 LED2 LED2 Diode	C20, C22, C55, C58, C61, C71  C21, C23  C27, C28, C29, C32 C51, C52	Capacitor (Semiconductor SIM Model)  Capacitor (Semiconductor SIM Model) Capacitor (Semiconductor SIM Model) Polarized Capacitor (Radial)	6  2 4 2
D1, D3, D4	Typical RED, GREEN, YELLOW, AMBER GaAs LED				3
DBGEN1, TRST1	Header, 2-Pin				2
Digital IO Higher Byte1					1
Digital IO Lower Byte1					1
FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB10, FB12, FB13, FB17 FB14, FB15, FB16	BLM15HG601S N1D Ferrite Inductor	BLM15HG601S N1D Inductor		BLM15HG601SN1D  Inductor	11  3
JB3	Micro USB Jack B				1
JTAG/DEBUG1					1
L1, L2, L3	Inductor				3
Power & Reset1					1
R1, R2, R3, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R22, R21, R24, R25, R27, R29, R32, R33, R40, R42, R43, R44, R45, R47	Resistor				31
R4, R5	Resistor				2
R19, R20, R21 R34, R35, R36, R37, R38, R39	Resistor Resistor				3 1
RESET1 RTCLARM1, WAKEUP1 SD1	Socket				1 2 1
STATUS	RGB LED				1
Stereo Input1, Stereo Output1					2
U1, U2, U3					3
U4 U5					1 1
32-bit ARM Cortex-M4 MCU, 264 kB SRAM, 2 HS USB with on-chip PHY, Ethernet, CAN, AES, SPIFI, SGPIO, SCT, 144-Pin LQFP					1
U7, U8, U9					3
LM3525 ABM3B- 12.000MHZ-B2- T	LM3525 ABM3B- 12.000MHZ-B2- T	LM3525 ABM3B- 12.000MHZ-B2- T	U10 X1	LM3525	1 1
X2					1
ABS07-32.768KHZ-T RTC Crystal Oscillator					1

Approved	Notes