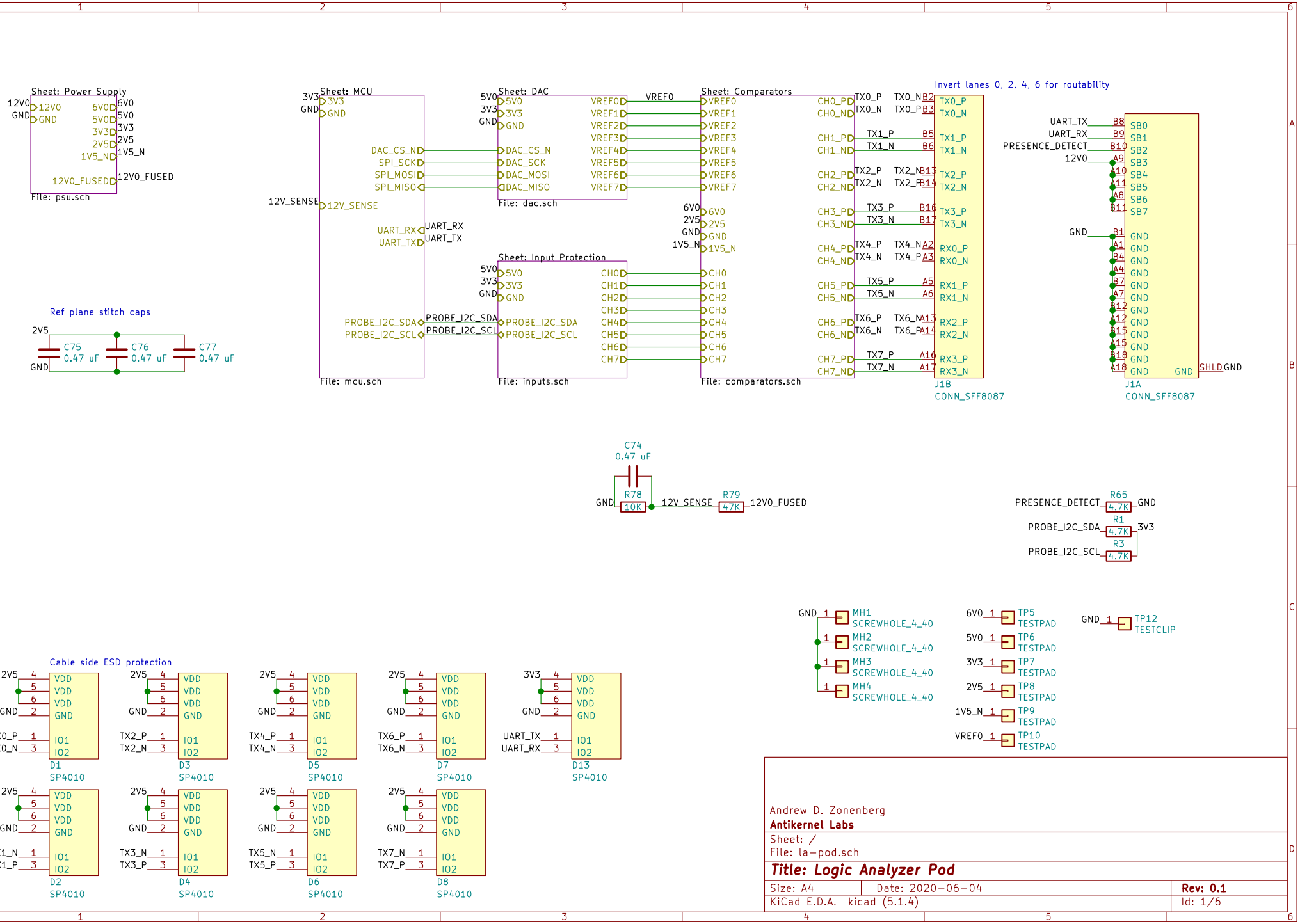
Sheet: Power Supply
12V0
GND
6V0
5V0
3V3
2V5
1V5_N
12V0_FUSED
File: psu.sch
Sheet: MCU
3V3
GND
DAC_CS_N
SPI_SCK
SPI_MOSI
SPI_MISO
12V_SENSE
UART_RX
UART_TX
PROBE_I2C_SDA
PROBE_I2C_SCL
File: mcu.sch
Sheet: DAC
5V0
3V3
GND
DAC_CS_N
DAC_SCK
DAC_MOSI
DAC_MISO
VREF0
VREF1
VREF2
VREF3
VREF4
VREF5
VREF6
VREF7
File: dac.sch
Sheet: Input Protection
5V0
3V3
GND
PROBE_I2C_SDA
PROBE_I2C_SCL
CH0
CH1
CH2
CH3
CH4
CH5
CH6
CH7
File: inputs.sch
Sheet: Comparators
VREF0
6V0
2V5
GND
1V5_N
CH0_P
CH0_N
CH1_P
CH1_N
CH2_P
CH2_N
CH3_P
CH3_N
CH4_P
CH4_N
CH5_P
CH5_N
CH6_P
CH6_N
CH7_P
CH7_N
File: comparators.sch
Invert lanes 0, 2, 4, 6 for routability
TX0_P
TX0_N
TX1_P
TX1_N
TX2_P
TX2_N
TX3_P
TX3_N
RX0_P
RX0_N
RX1_P
RX1_N
RX2_P
RX2_N
RX3_P
RX3_N
J1B
CONN_SFF8087
UART_TX
UART_RX
PRESENCE_DETECT
12V0
GND
SHLD
J1A
CONN_SFF8087
Ref plane stitch caps
2V5
GND
C75
0.47 uF
C76
0.47 uF
C77
0.47 uF
C74
0.47 uF
R78
10K
12V_SENSE
R79
47K
12V0_FUSED
PRESENCE_DETECT
R65
4.7K
GND
PROBE_I2C_SDA
R1
4.7K
3V3
PROBE_I2C_SCL
R3
4.7K
Cable side ESD protection
D1
SP4010
TX0_P
TX0_N
D3
SP4010
TX2_P
TX2_N
D5
SP4010
TX4_P
TX4_N
D7
SP4010
TX6_P
TX6_N
D13
SP4010
UART_TX
UART_RX
D2
SP4010
TX1_N
TX1_P
D4
SP4010
TX3_N
TX3_P
D6
SP4010
TX5_N
TX5_P
D8
SP4010
TX7_N
TX7_P
MH1
SCREWHOLE_4_40
MH2
SCREWHOLE_4_40
MH3
SCREWHOLE_4_40
MH4
SCREWHOLE_4_40
TP5
TESTPAD
TP6
TESTPAD
TP7
TESTPAD
TP8
TESTPAD
TP9
TESTPAD
TP10
TESTPAD
TP12
TESTCLIP
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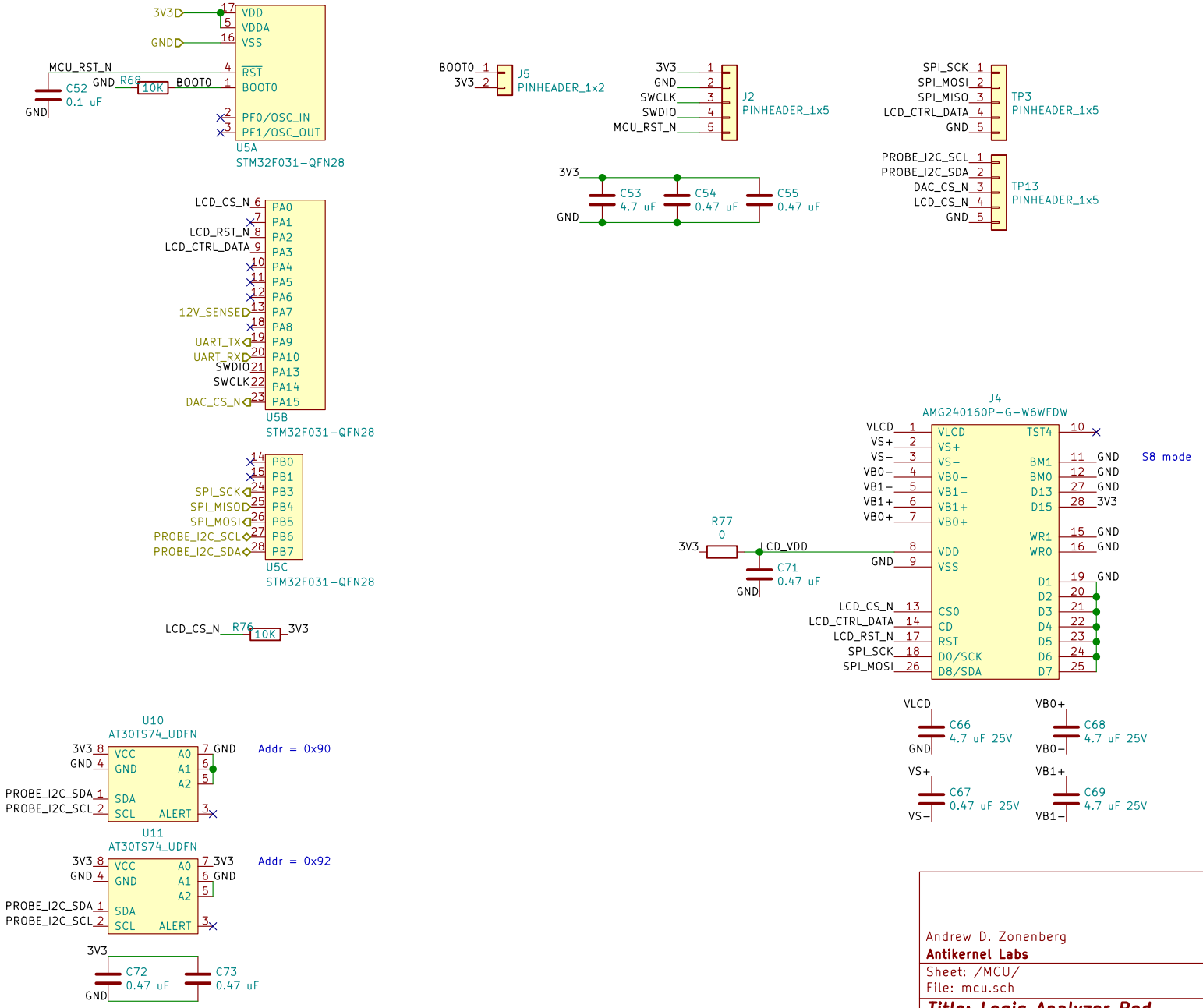
Sheet: /
File: la-pod.sch
Title: Logic Analyzer Pod
Size: A4
Date: 2020-06-04
Rev: 0.1
KiCad E.D.A. kicad (5.1.4)
Id: 1/6


3V3
VDD
VDDA
GND
VSS
MCU_RST_N
RST
C52
0.1 uF
R68
10K
BOOT0
PF0/OSC_IN
PF1/OSC_OUT
U5A
STM32F031-QFN28
BOOT0
3V3
J5
PINHEADER_1x2
3V3
GND
SWCLK
SWDIO
MCU_RST_N
J2
PINHEADER_1x5
C53
4.7 uF
C54
0.47 uF
C55
0.47 uF
SPI_SCK
SPI_MOSI
SPI_MISO
LCD_CTRL_DATA
GND
TP3
PINHEADER_1x5
PROBE_I2C_SCL
PROBE_I2C_SDA
DAC_CS_N
LCD_CS_N
GND
TP13
PINHEADER_1x5
LCD_CS_N
LCD_RST_N
LCD_CTRL_DATA
12V_SENSE
UART_TX
UART_RX
SWDIO
SWCLK
DAC_CS_N
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA13
PA14
PA15
U5B
STM32F031-QFN28
SPI_SCK
SPI_MISO
SPI_MOSI
PROBE_I2C_SCL
PROBE_I2C_SDA
PB0
PB1
PB3
PB4
PB5
PB6
PB7
U5C
STM32F031-QFN28
LCD_CS_N
R76
10K
3V3
J4
AMG240160P-G-W6WFDW
VLCD
VS+
VS-
VB0-
VB1-
VB1+
VB0+
VDD
VSS
CS0
CD
RST
DO/SCK
D8/SDA
TST4
BM1
BM0
D13
D15
WR1
WR0
D1
D2
D3
D4
D5
D6
D7
GND
3V3
S8 mode
R77
0
LCD_VDD
C71
0.47 uF
LCD_CS_N
LCD_CTRL_DATA
LCD_RST_N
SPI_SCK
SPI_MOSI
VLCD
C66
4.7 uF 25V
VB0+
C68
4.7 uF 25V
VS+
C67
0.47 uF 25V
VB1+
C69
4.7 uF 25V
U10
AT30TS74_UDFN
VCC
GND
A0
A1
A2
SDA
SCL
ALERT
Addr = 0x90
U11
AT30TS74_UDFN
Addr = 0x92
C72
0.47 uF
C73
0.47 uF
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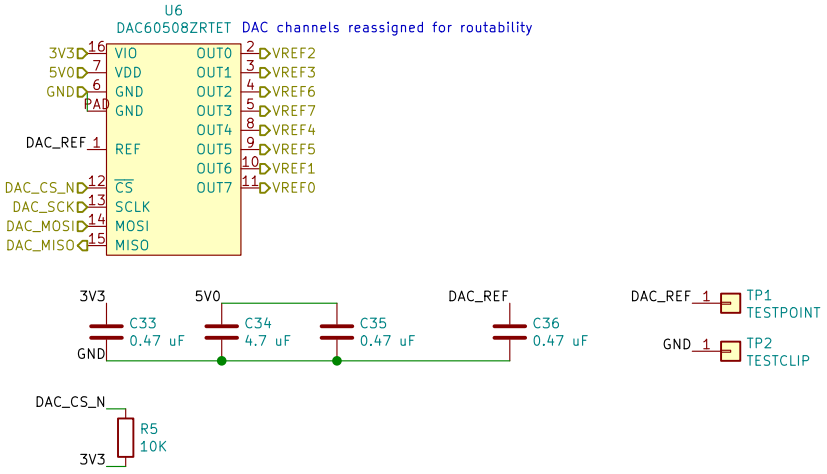
Sheet: /MCU/
File: mcu.sch
Title: Logic Analyzer Pod
Size: A4
Date: 2020-06-04
Rev: 0.1
KiCad E.D.A. kicad (5.1.4)
Id: 2/6



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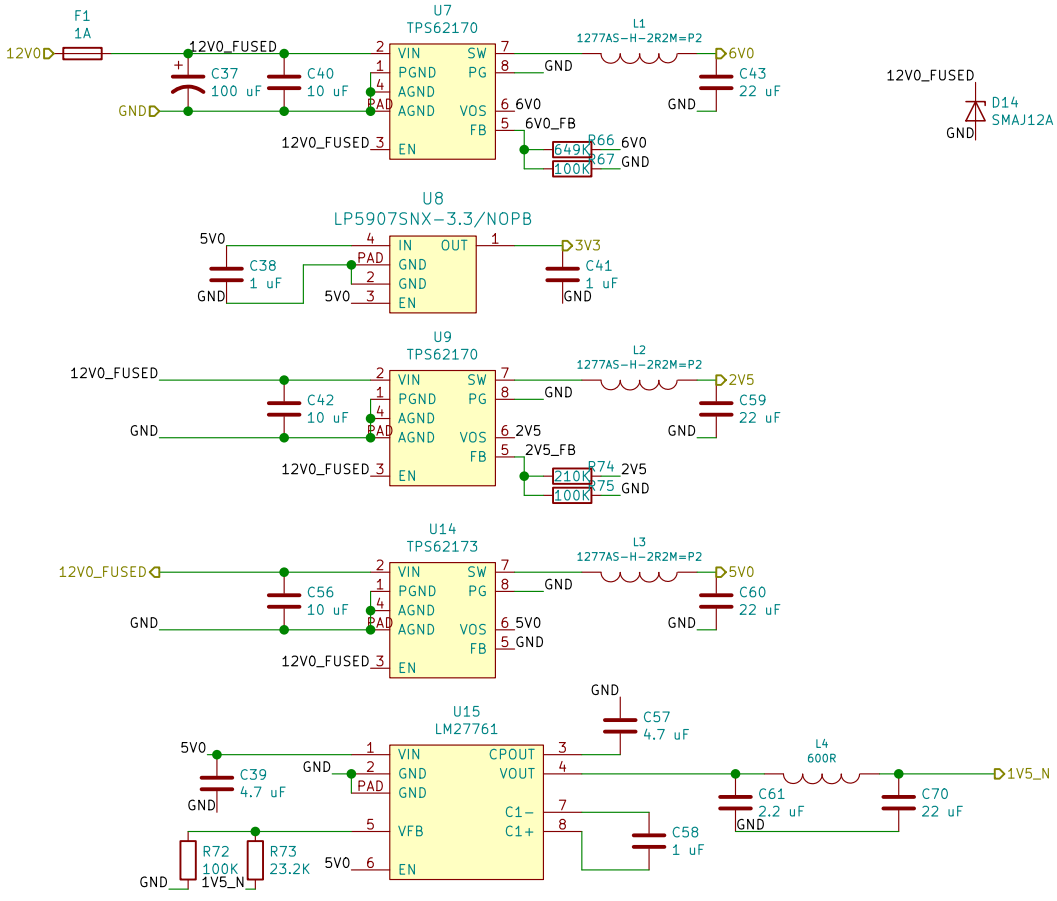
Sheet: /DAC/
File: dac.sch

Title: Logic Analyzer Pod

Size: A4	Date: 2020-06-04	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.4)		Id: 3/6



Estimated power usage:
* 3V3: 50 mA (mostly MCU)
* 2V5: 200 mA plus termination
* 1V5_N: 100 mA

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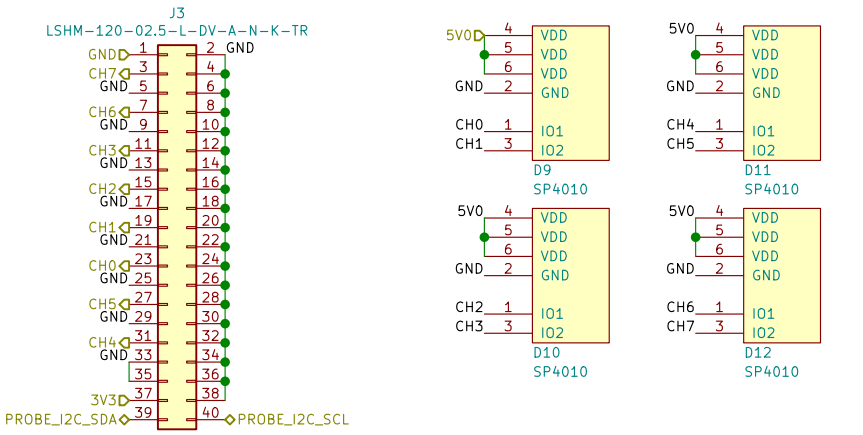
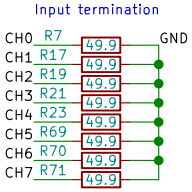
Sheet: /Power Supply/
File: psu.sch

Title: Logic Analyzer Pod

Size: A4	Date: 2020-06-04	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.4)		Id: 4/6





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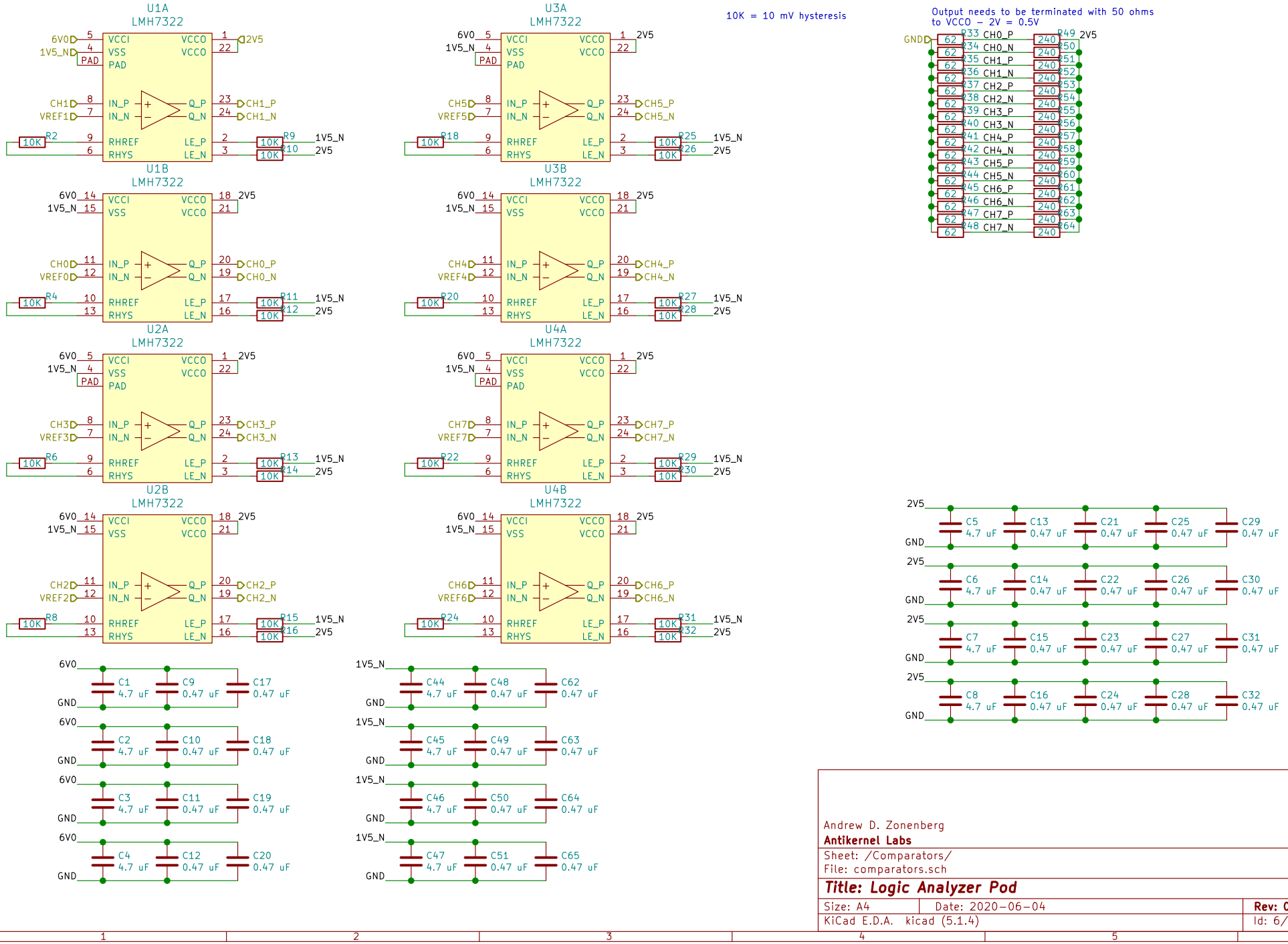
Sheet: /Input Protection/
File: inputs.sch

Title: Logic Analyzer Pod

Size: A4	Date: 2020-06-04	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.4)		Id: 5/6


U1A
LMH7322
U1B
LMH7322
U2A
LMH7322
U2B
LMH7322
U3A
LMH7322
U3B
LMH7322
U4A
LMH7322
U4B
LMH7322
10K = 10 mV hysteresis
Output needs to be terminated with 50 ohms
to VCCO - 2V = 0.5V
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Antikernel Labs
Sheet: /Comparators/
File: comparators.sch
Title: Logic Analyzer Pod
Size: A4
Date: 2020-06-04
Rev: 0.1
KiCad E.D.A. kicad (5.1.4)
Id: 6/6