

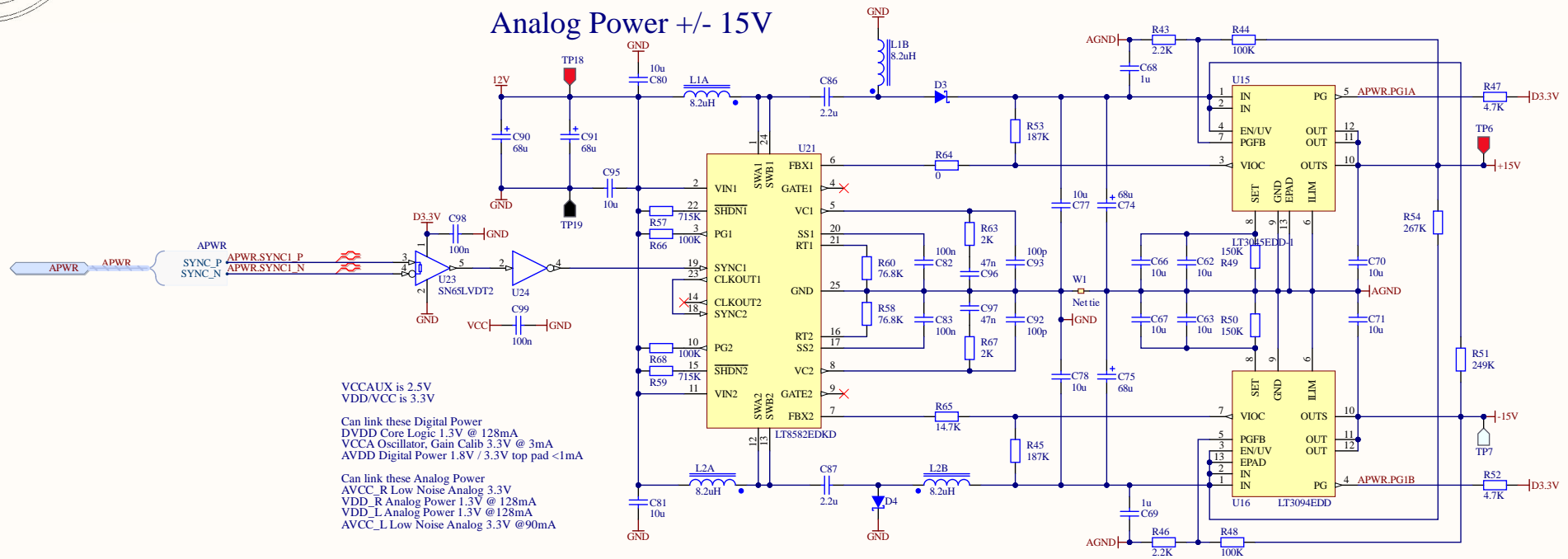
Board-to-board spacing is 19 mm with -5
 VCCAUX is 2.5V
 VDD/VCC is 3.3V

Project	DAC Daughter Prototype	LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation
Sheet Title	DAC Proto Top Sheet	
Size	B	DCC D2200092
Date	3/11/2022	Time: 11:05:30 AM
File	DacDaughter1.SchDoc	Sheet: 1 of 5
		DrawnBy: M. Pirello





Analog Power +/- 15V



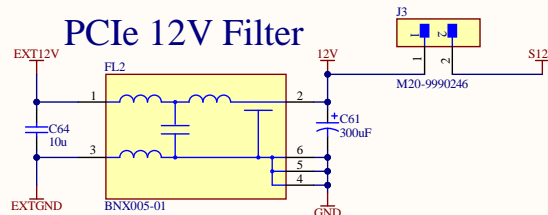
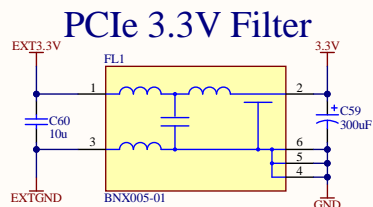
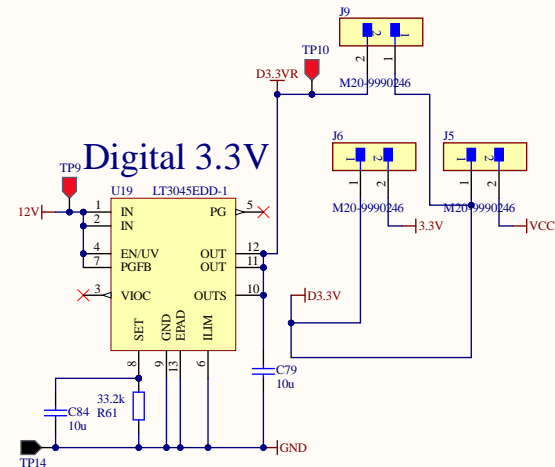
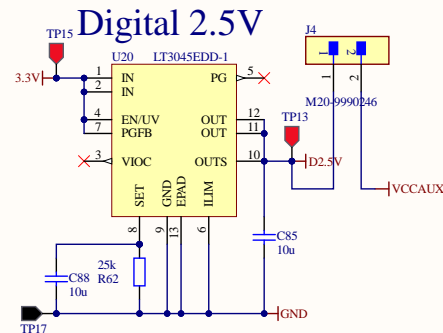
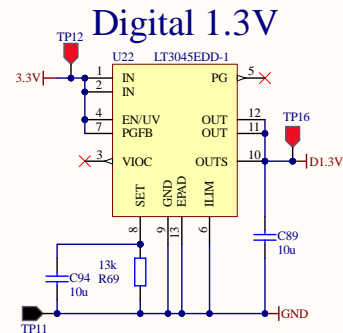
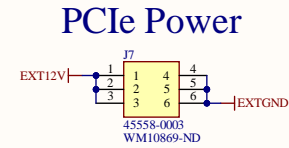
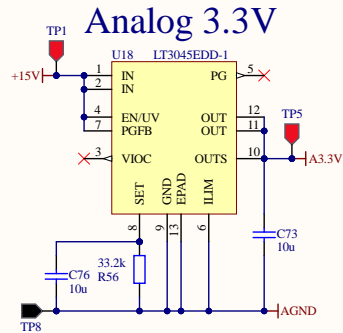
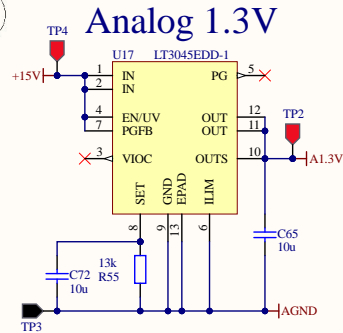
VCCAUX is 2.5V
 VDD/VCC is 3.3V

 Can link these Digital Power
 DVDD Core Logic 1.3V @ 128mA
 VCCA Oscillator, Gain Calib 3.3V @ 3mA
 AVDD Digital Power 1.8V / 3.3V top pad <1mA

 Can link these Analog Power
 AVCC_R Low Noise Analog 3.3V
 VDD_R Analog Power 1.3V @ 128mA
 VDD_L Analog Power 1.3V @ 128mA
 AVCC_L Low Noise Analog 3.3V @ 90mA

Project	DAC Daughter Prototype		LIGO Laboratory
Sheet Title	DAC Proto Dual Analog Supply		California Institute of Technology
Size:	B	DCC D2200092	Rev: 1
Date:	3/11/2022	Time: 11:05:31 AM	Sheet: 2 of 19
File:	ConvProtoPowerBipolar.SchDoc		DrawnBy: M. Pirello





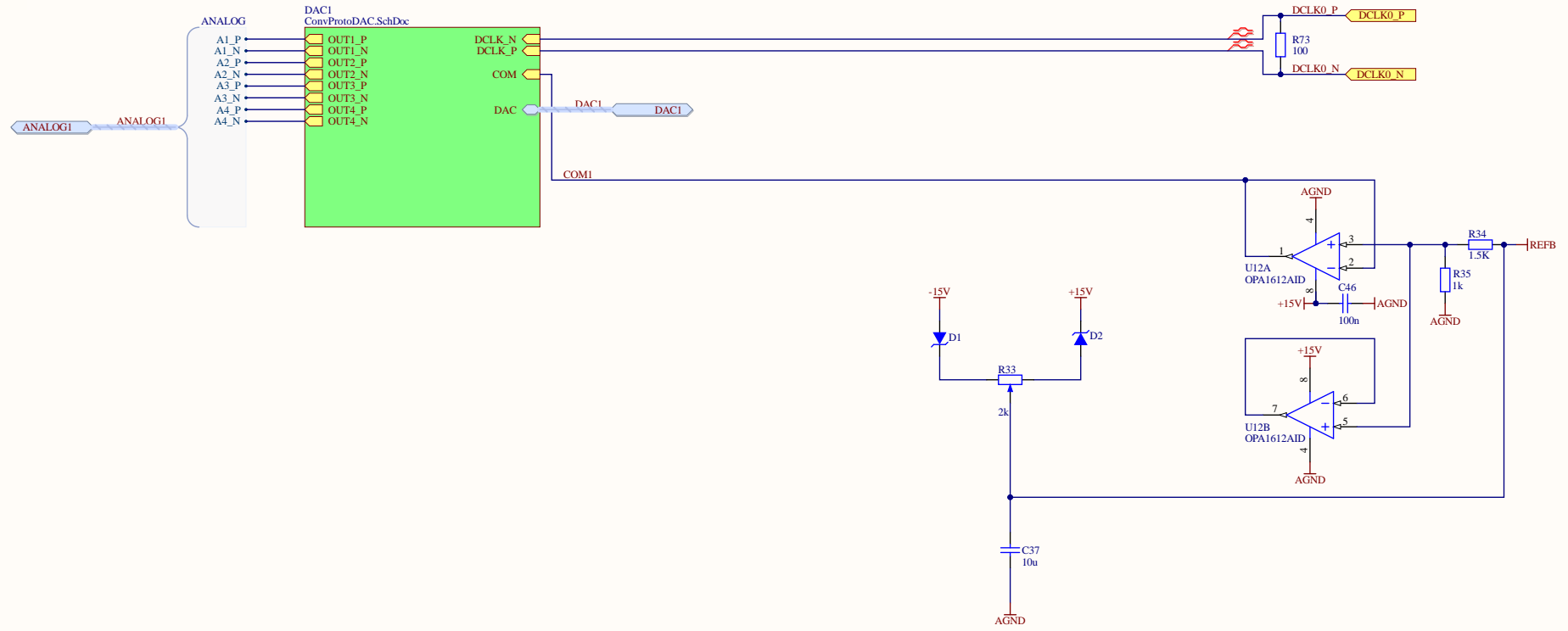
VCCAUX is 2.5V
VDD/VCC is 3.3V

Can link these Digital Power
DVDD Core Logic 1.3V @ 128mA
VCCA Oscillator: Gain Calib 3.3V @ 3mA
AVDD Digital Power 1.8V / 3.3V top pad <1mA

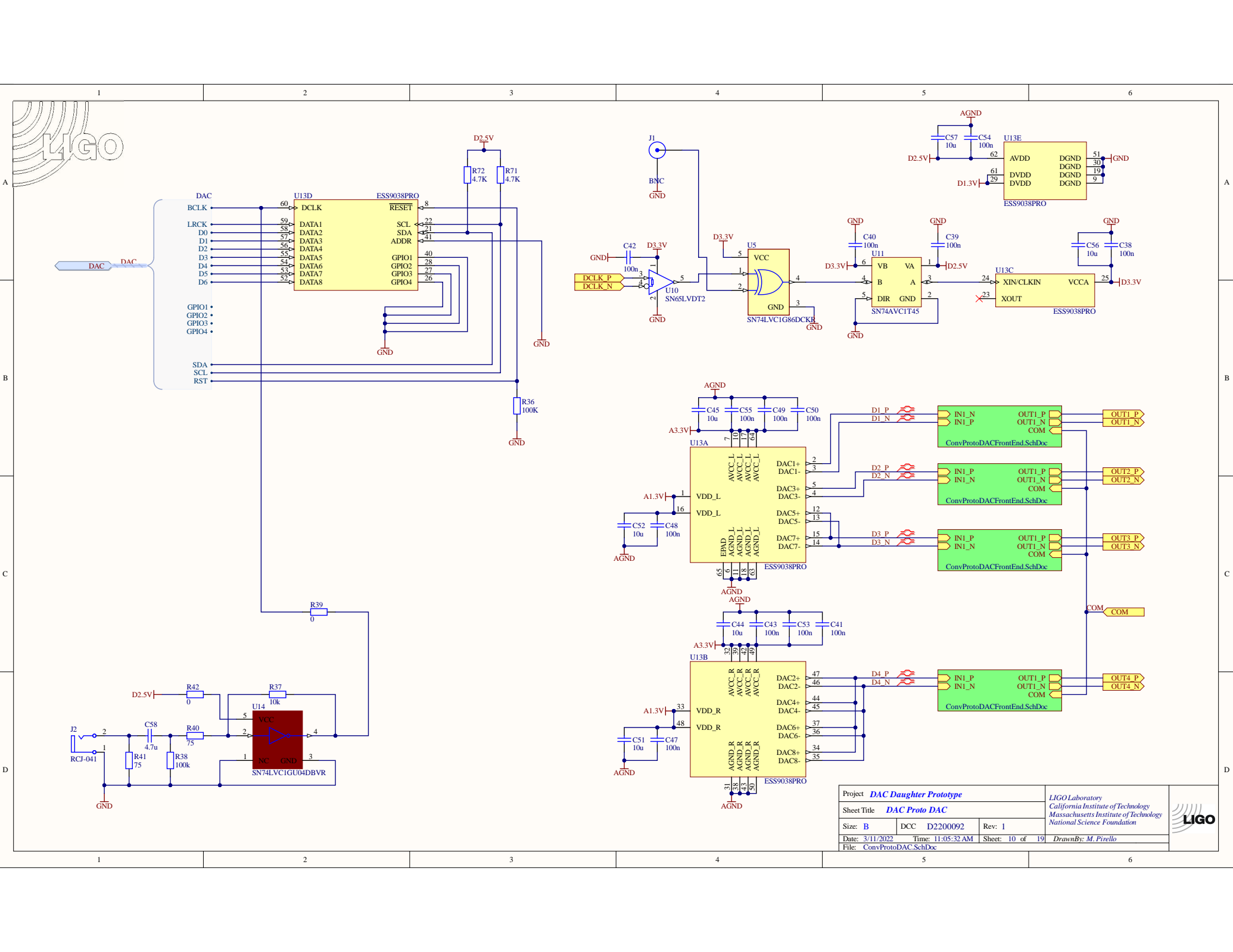
Can link these Analog Power
AVCC_R Low Noise Analog 3.3V
VDD_R Analog Power 1.3V @ 128mA
VDD_L Analog Power 1.3V @ 128mA
AVCC_L Low Noise Analog 3.3V @ 90mA

Project	DAC Daughter Prototype		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation
Sheet Title	DAC Proto Linear Supplies		
Size:	B	DCC D2200092	Rev: 1
Date:	3/11/2022	Time: 11:05:31 AM	Sheet: 2 of 19
File:	ConvProtoPower.SchDoc		DrawnBy: M. Pirello

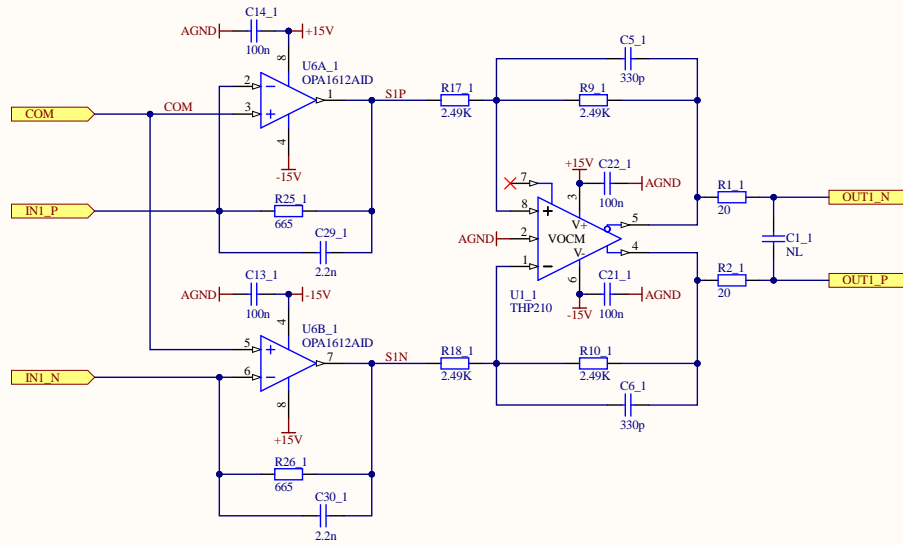




Project DAC Daughter Prototype			LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title DAC Proto DAC Outputs			LIGO	
Size: B	DCC D2200092	Rev: 1		
Date: 3/11/2022	Time: 11:05:31 AM	Sheet: 9 of 19	DrawnBy: M. Pirello	
File: ConvProtoOutputs.SchDoc				

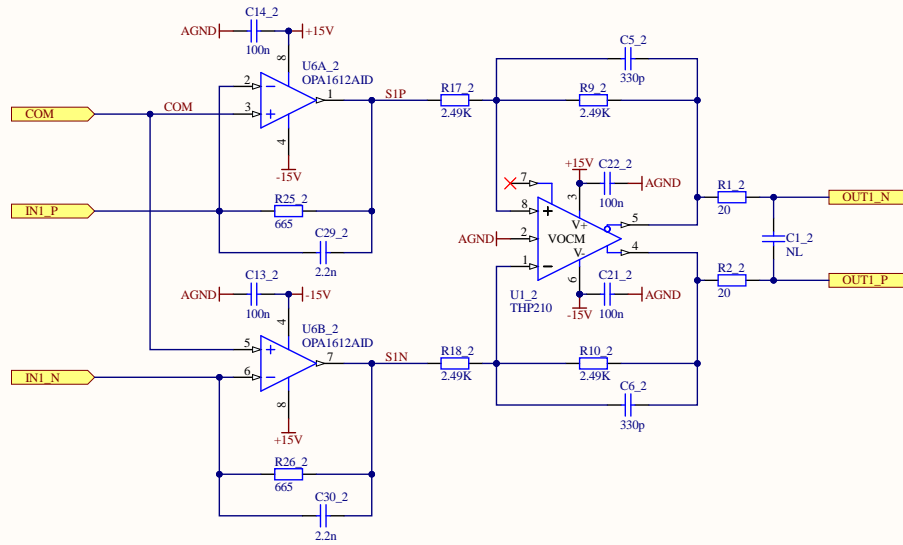


Project	DAC Daughter Prototype		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title	DAC Proto DAC			
Size	B	DCC D2200092	Rev: 1	
Date:	3/11/2022	Time: 11:05:32 AM	Sheet: 10 of 19	DrawnBy: M. Pirello
File:	ConvProtoDAC.SchDoc			



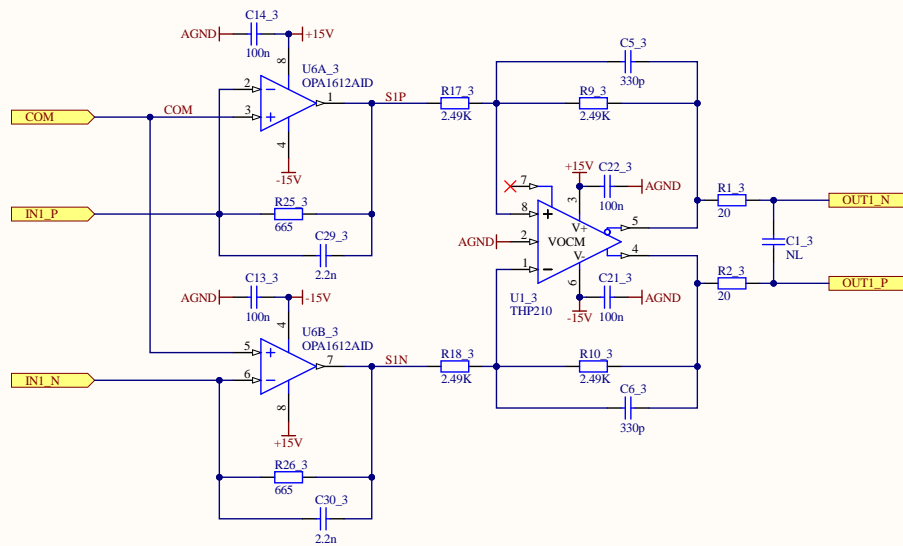
Project DAC Daughter Prototype			LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title DAC Proto Front Ends				
Size: B	DCC D2200092	Rev: 1		
Date: 3/11/2022	Time: 11:05:32 AM	Sheet: 11 of 19	DrawnBy: M. Pirello	
File: ConvProtoDACFrontEnd.SchDoc				





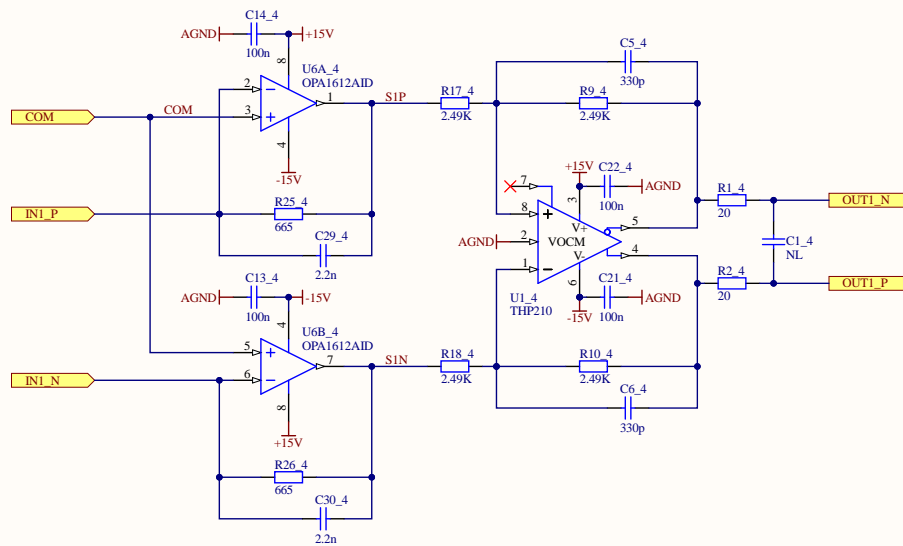
Project DAC Daughter Prototype			LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title DAC Proto Front Ends				
Size: B	DCC D2200092	Rev: 1		
Date: 3/11/2022	Time: 11:05:32 AM	Sheet: 11 of 19	DrawnBy: M. Pirello	
File: ConvProtoDACFrontEnd.SchDoc				





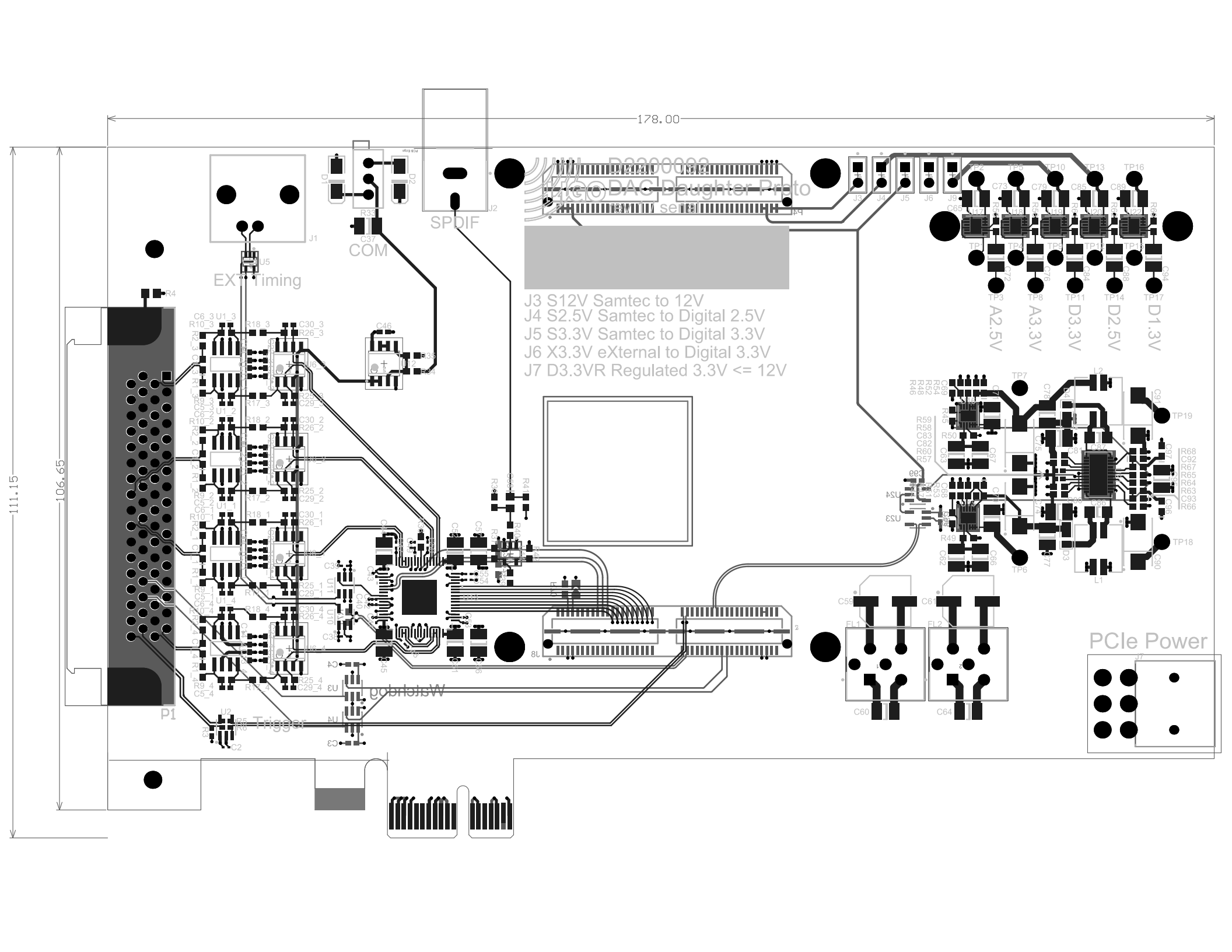
Project DAC Daughter Prototype		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title DAC Proto Front Ends			
Size: B	DCC D2200092	Rev: 1	
Date: 3/11/2022	Time: 11:05:32 AM	Sheet: 11 of 19	DrawnBy: M. Pirello
File: ConvProtoDACFrontEnd.SchDoc			





Project DAC Daughter Prototype			LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology National Science Foundation	
Sheet Title DAC Proto Front Ends				
Size: B	DCC D2200092	Rev: 1		
Date: 3/11/2022	Time: 11:05:32AM	Sheet: 11 of 19	DrawnBy: M. Pirello	
File: ConvProtoDACFrontEnd.SchDoc				





178.00

J1
EX Timing

J2
SPDIF

J3
S12V Samtec to 12V

J4
S2.5V Samtec to Digital 2.5V

J5
S3.3V Samtec to Digital 3.3V

J6
X3.3V eXternal to Digital 3.3V

J7
D3.3V Regulated 3.3V <= 12V

TP10
TP13
TP16
TP17
TP14
TP11
TP18
TP9
TP5
TP6
TP7
TP8
TP12
TP15
TP19
TP1
TP2
TP3
TP4
TP13
TP14
TP15
TP16
TP17
TP18
TP19

P1

111.15

106.65

R59
R58
R57
R56
R55
R54
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R1
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C58
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C4
C3
C2
C1

PCle Power
J7

gobritsW

88
18