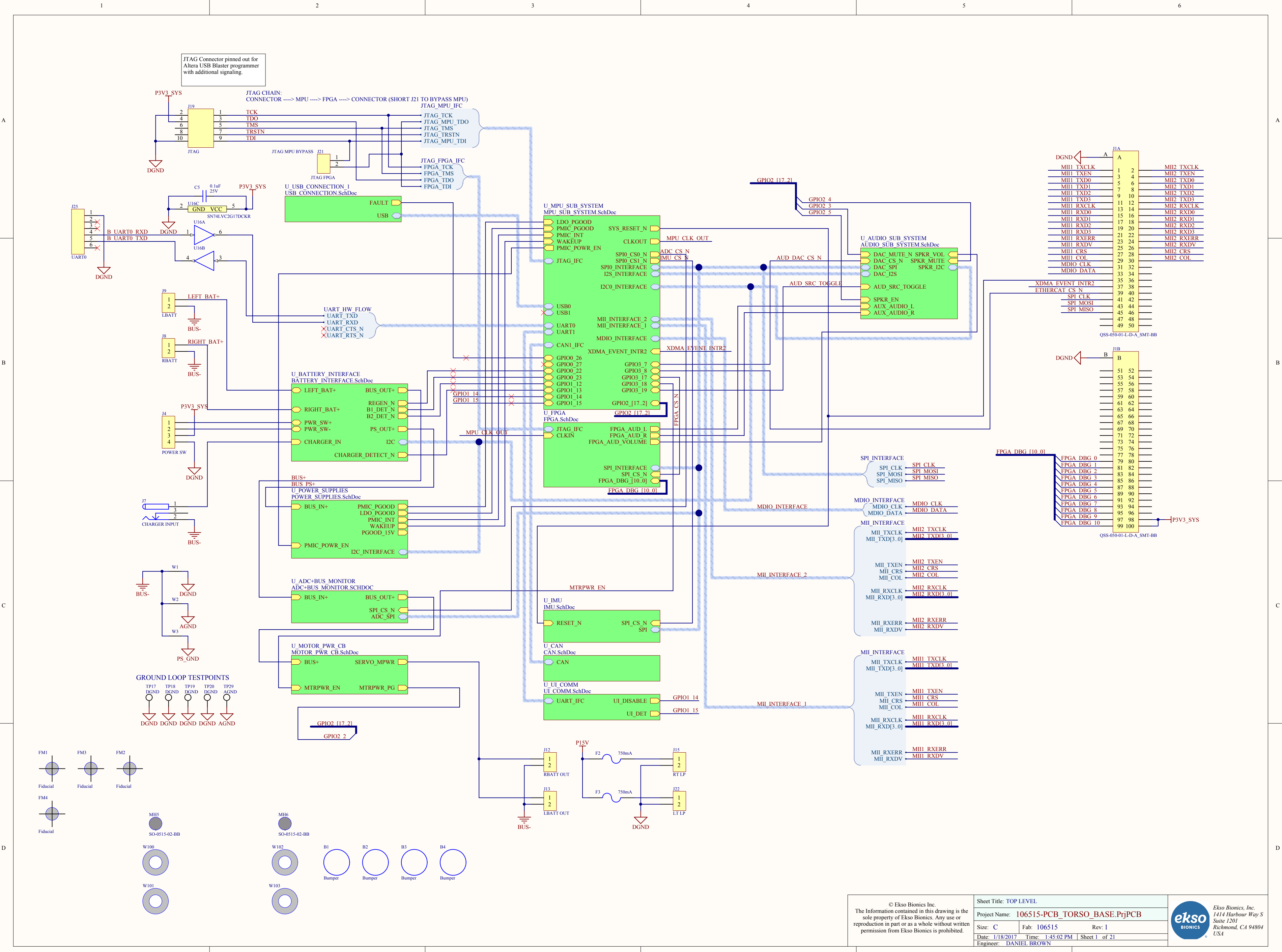
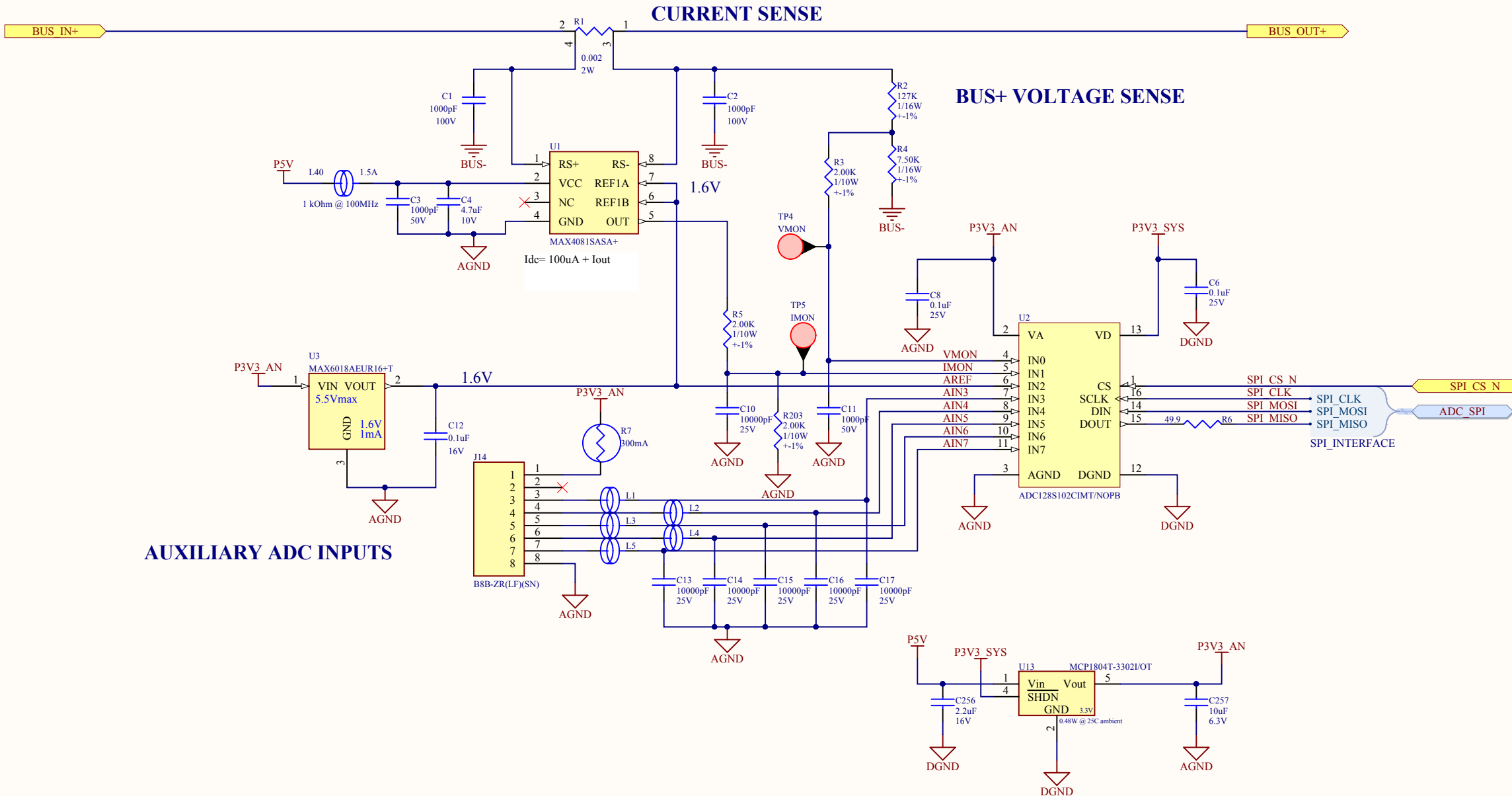
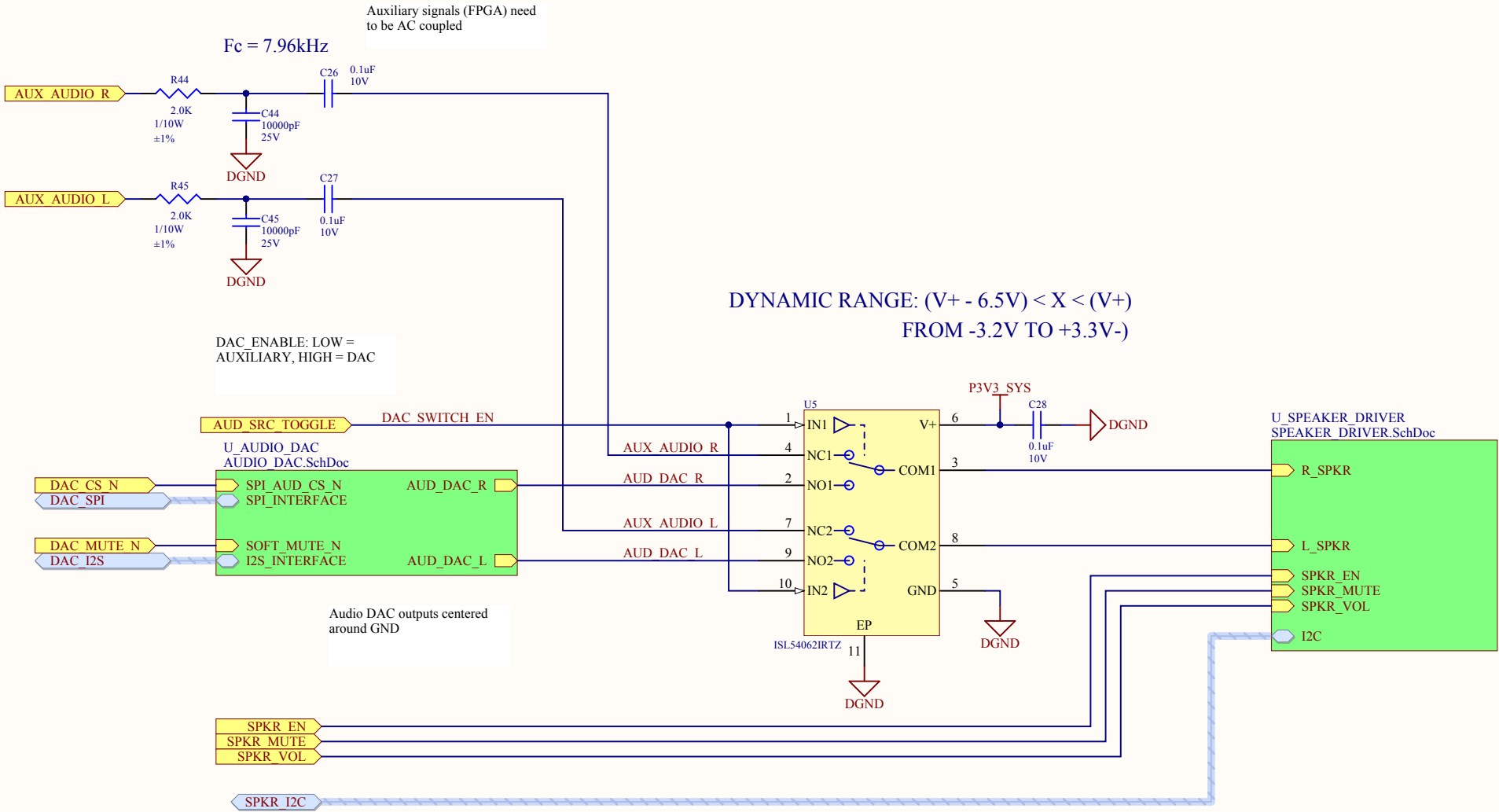
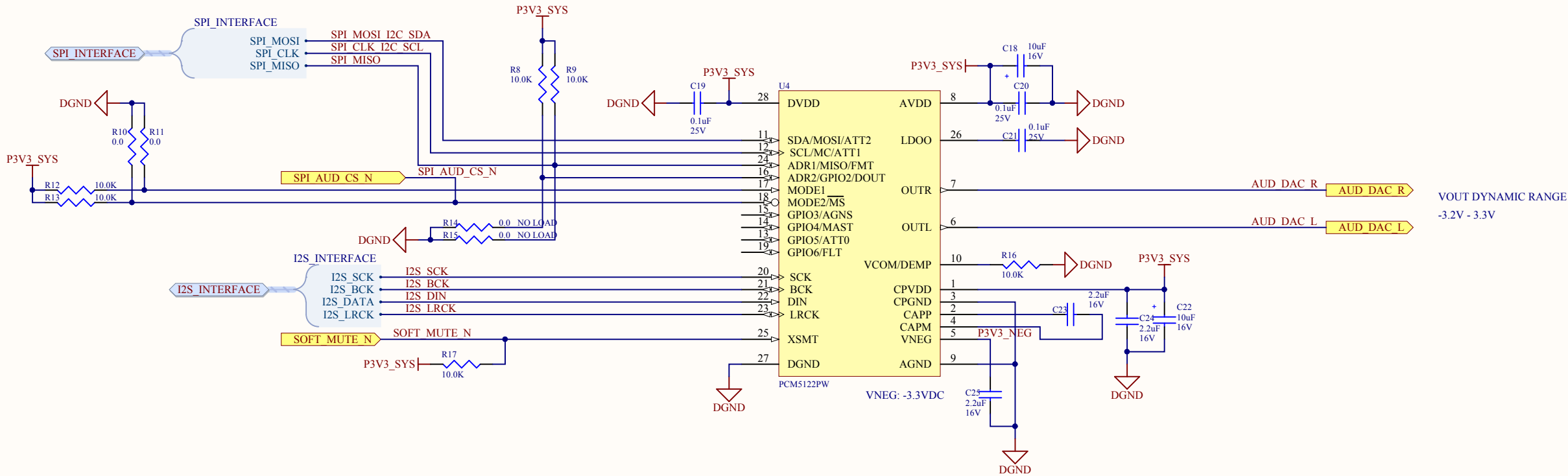








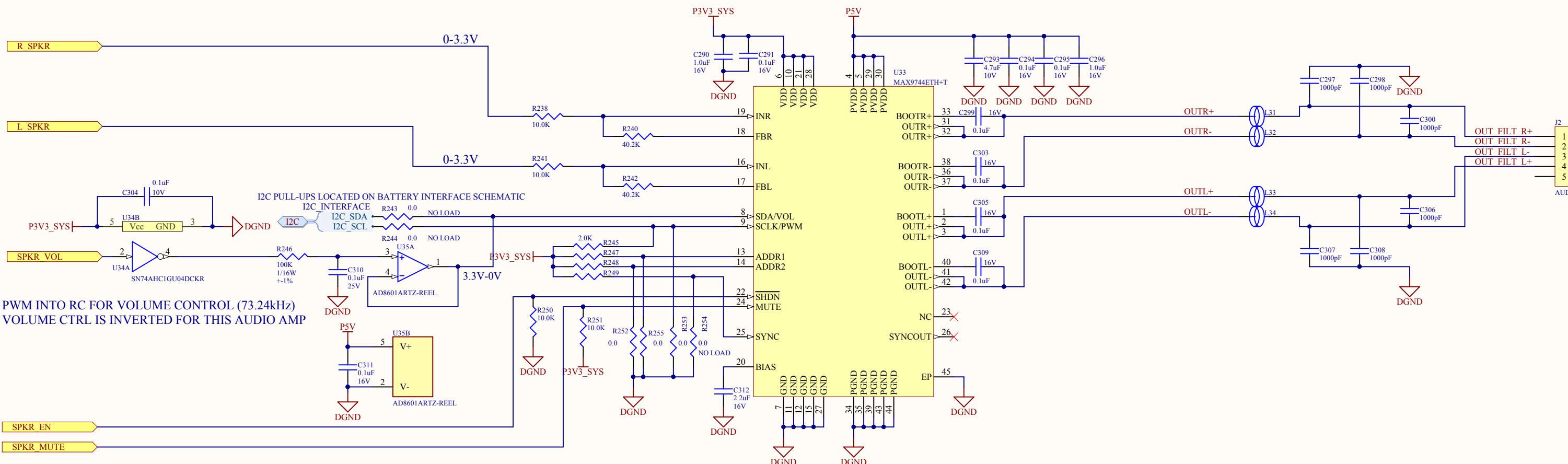


CHIP MODE

MODE2	MODE1	MODE
X	1	SPI MODE
1	0	I2C MODE

I2C ADDRESS

ADR2	ADR1	ADDRESS (HEX)
0	0	0x98
0	1	0x9A
1	0	0x9C
1	1	0x9E



PWM INTO RC FOR VOLUME CONTROL (73.24kHz)
VOLUME CTRL IS INVERTED FOR THIS AUDIO AMP

ANALOG/DIGITAL CONTROL

REF DES	DIGITAL CONTROL	ANALOG CONTROL
R255	SEE ADDRESS TABLE	LOAD
R252	SEE ADDRESS TABLE	LOAD
R253	NO LOAD	SEE OUTPUT TABLE
R254	SEE FREQ TABLE	SEE FREQ TABLE
R243	LOAD	NO LOAD
R244	LOAD	NO LOAD
R231	NO LOAD	LOAD
U35	NO LOAD	LOAD
C311	NO LOAD	LOAD

ADDRESS TABLE (IN DIGITAL MODE)

R252	R255	ADDRESS
LOAD	LOAD	DIGITAL MODE DISABLED
LOAD	NO LOAD	1001001_
NO LOAD	LOAD	1001010_
NO LOAD	NO LOAD	1001011_

OUTPUT TYPE TABLE (IN ANALOG MODE)

R253	FUNCTION
LOAD	FILTERLESS PWM MODE
NO LOAD	STANDARD PWM MODE

FREQ TABLE (IN EITHER MODE)

R249	R254	FREQsw
LOAD	LOAD	300kHz (FFM)
LOAD	NO LOAD	360kHz +/- 7.5kHz (SSM)
NO LOAD	NO LOAD	360kHz (FFM)

BATTERY POWER ENTRY

BATTERY POWER CONNECTOR

BATTERY POWER CONNECTOR

BATTERY REGEN CIRCUIT

I2C ISOLATION CIRCUITS FOR 60601 SAFETY PROTECTION

POWER 3.3V AND POWER SWITCH ISOLATION CIRCUITS FOR 60601 SAFETY PROTECTION

BATTERY DATA CONNECTORS

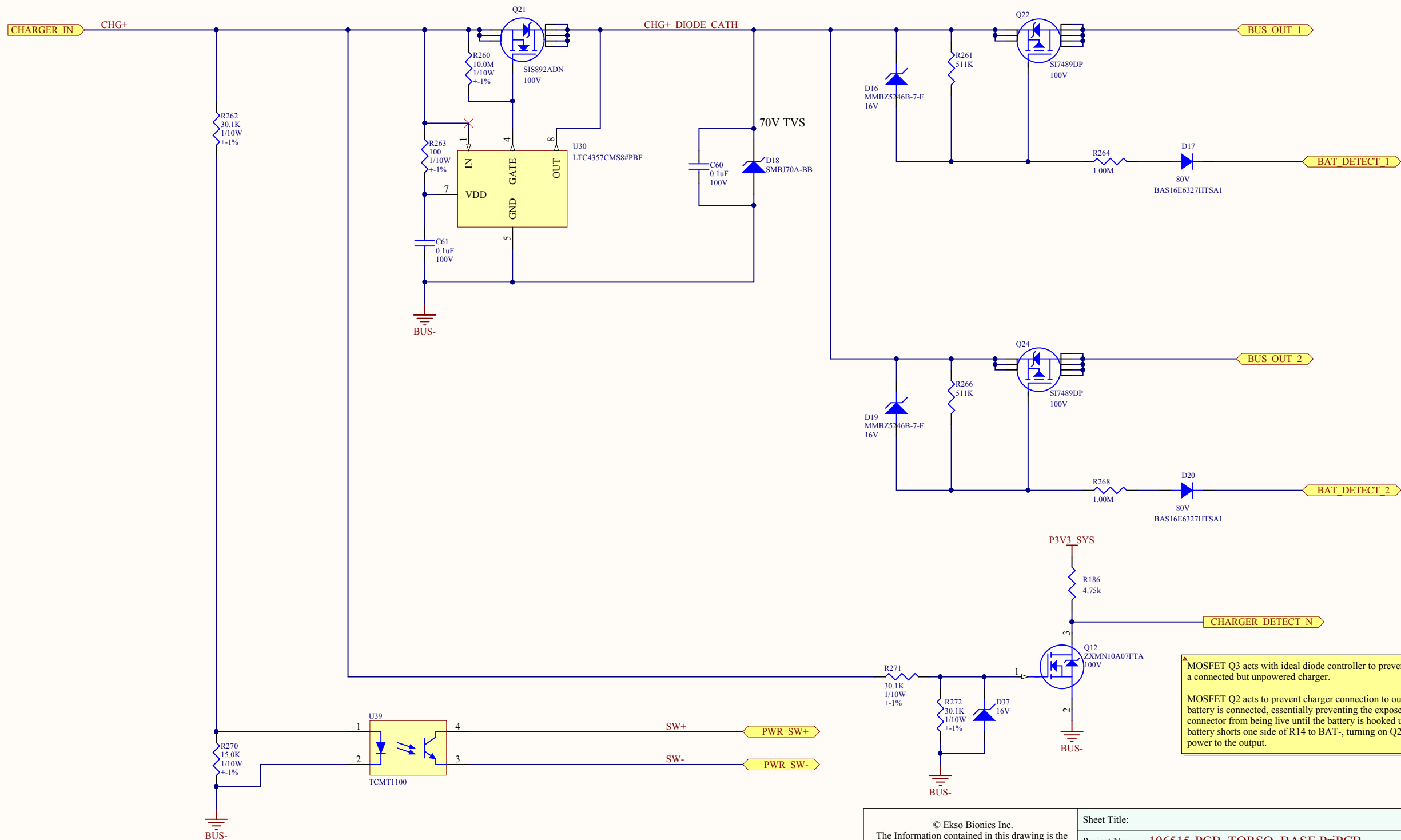
Explanation of Circuit Operation

When left battery is missing, the diode D40 blocks the current leakage on pin 1. The Q40 is off and the pin 3 is connected to GND through R234, R235 (zero leakage). Pin 4 has current leakage 11.7uA max (connected to 54V through R242, R240). Q43 and Q38 are off which means no leakage on pin 9. Also U61 is off which set pins 7 & 10 at high impedance state (zero leakage).

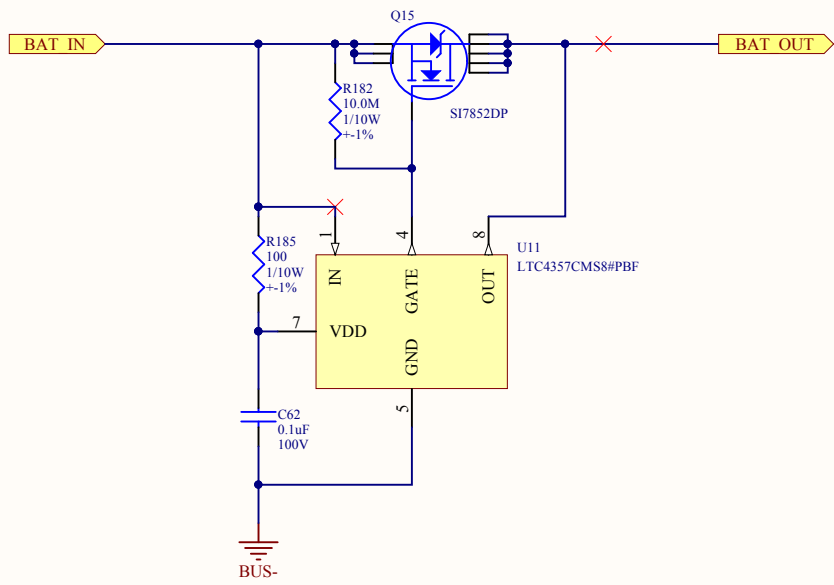
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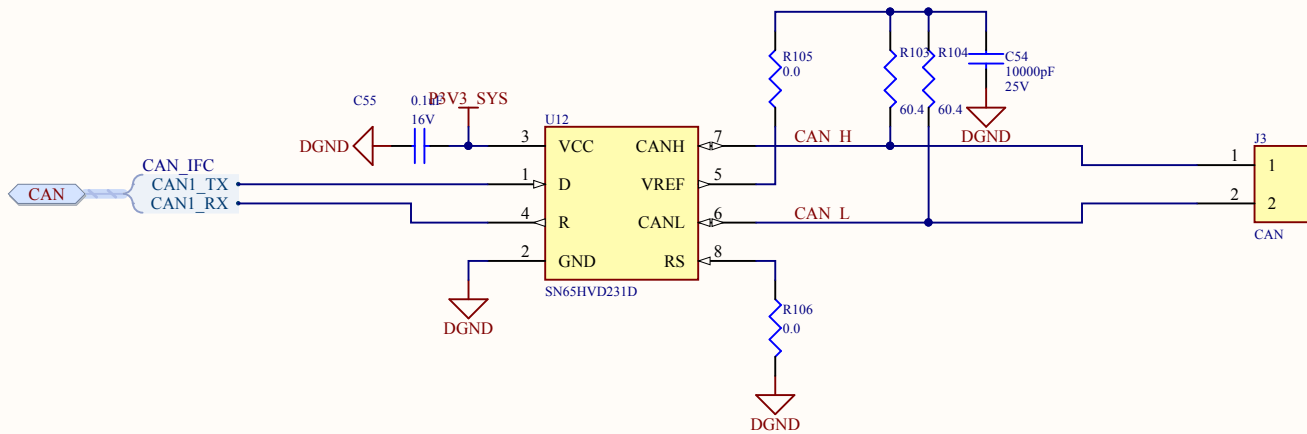
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Project Name: 106515-PCB_TORSO_BASE.PrjPCB			
Size: C	Fab: 106515	Rev: 1	
Date: 1/18/2017	Time: 1:45:03 PM	Sheet 6 of 21	
Engineer: EVANGELOS CHRISTODOULOU			





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	Project Name: 106515-PCB_TORSO_BASE.PrjPCB			
	Size: B	Fab: 106515	Rev: 1	
	Date: 1/18/2017	Time: 1:45:03 PM	Sheet 7 of 21	
	Engineer: DANIEL BROWN			





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	Project Name: 106515-PCB_TORSO_BASE.PrjPCB		
	Size: A	Fab: 106515	Rev: 1
	Date: 1/18/2017	Time: 1:45:04 PM	Sheet 9 of 21
	Engineer: DANIEL BROWN		



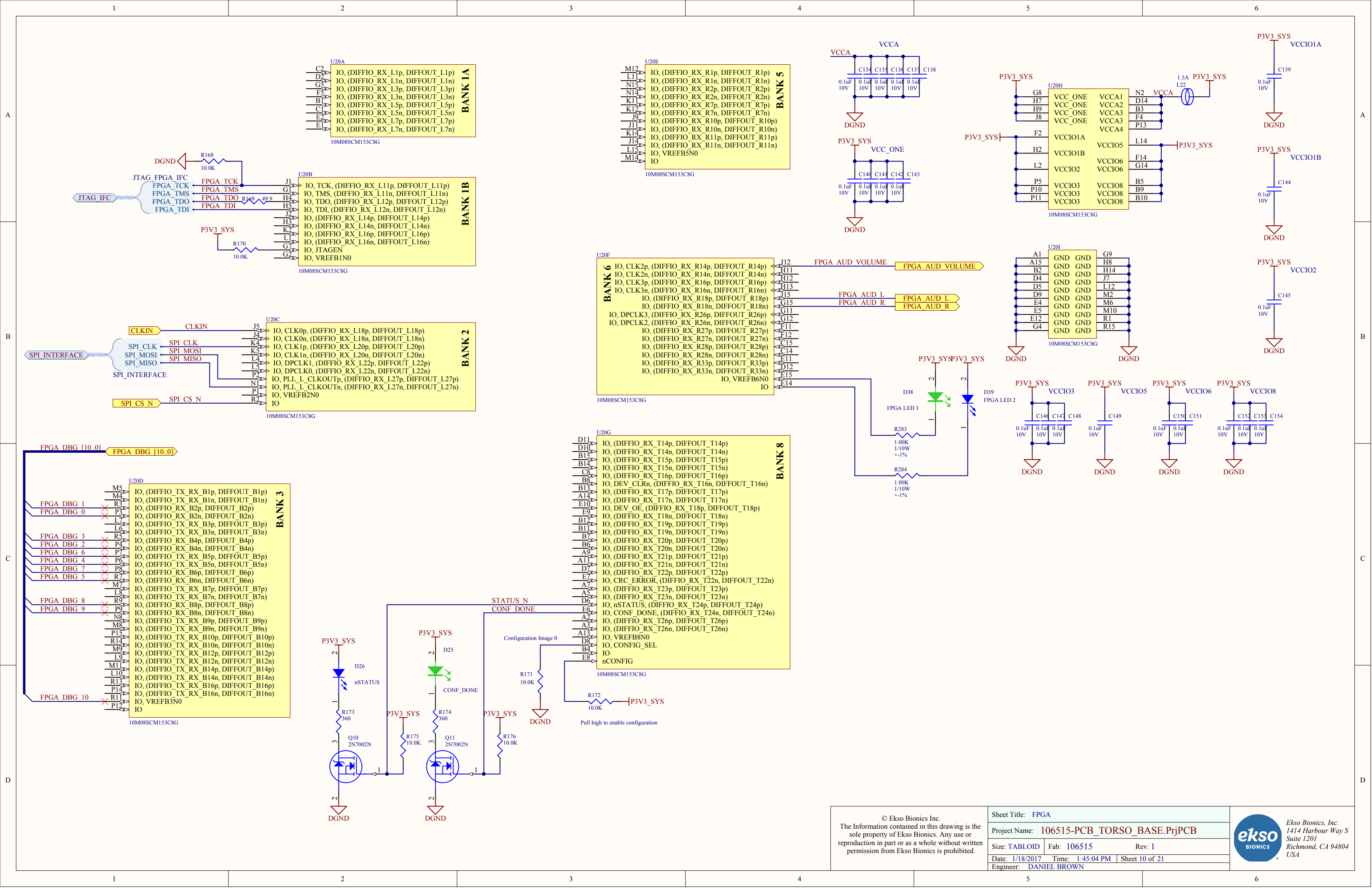
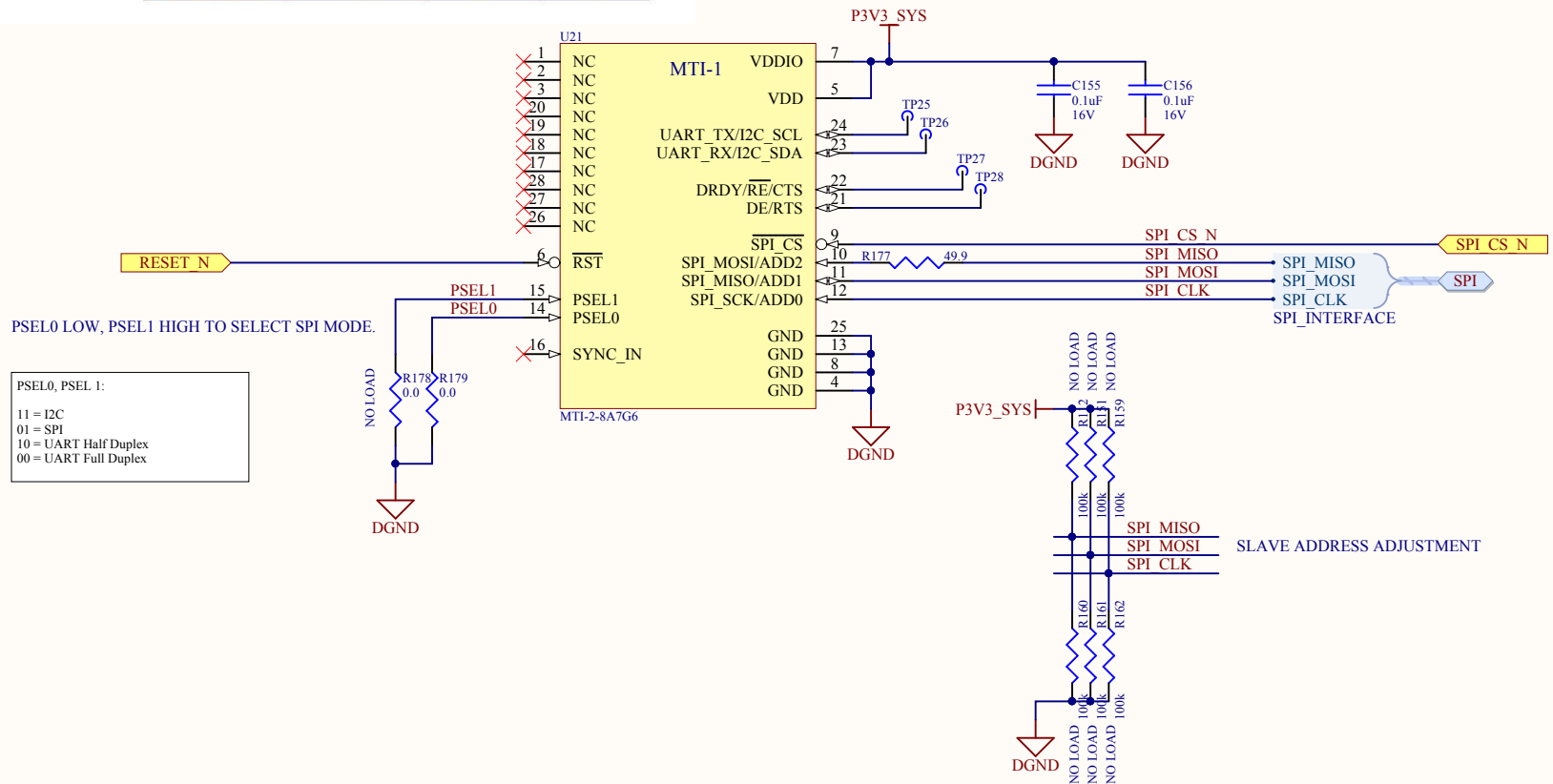


Table 2. List of I²C addresses

I ² C address	ADD0	ADD1	ADD2
0x1D	0	0	0
0x1E	1	0	0
0x28	0	1	0
0x29	1	1	0
0x68	0	0	1
0x69	1	0	1
0x6A	0	1	1
0x6B (<i>default</i>)	1	1	1

XSENS IMU



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Sheet Title: IMU

Project Name: 106515-PCB_TORSO_BASE.PrjPCB

Size: **A**

Fab: 106515

Rev: 1

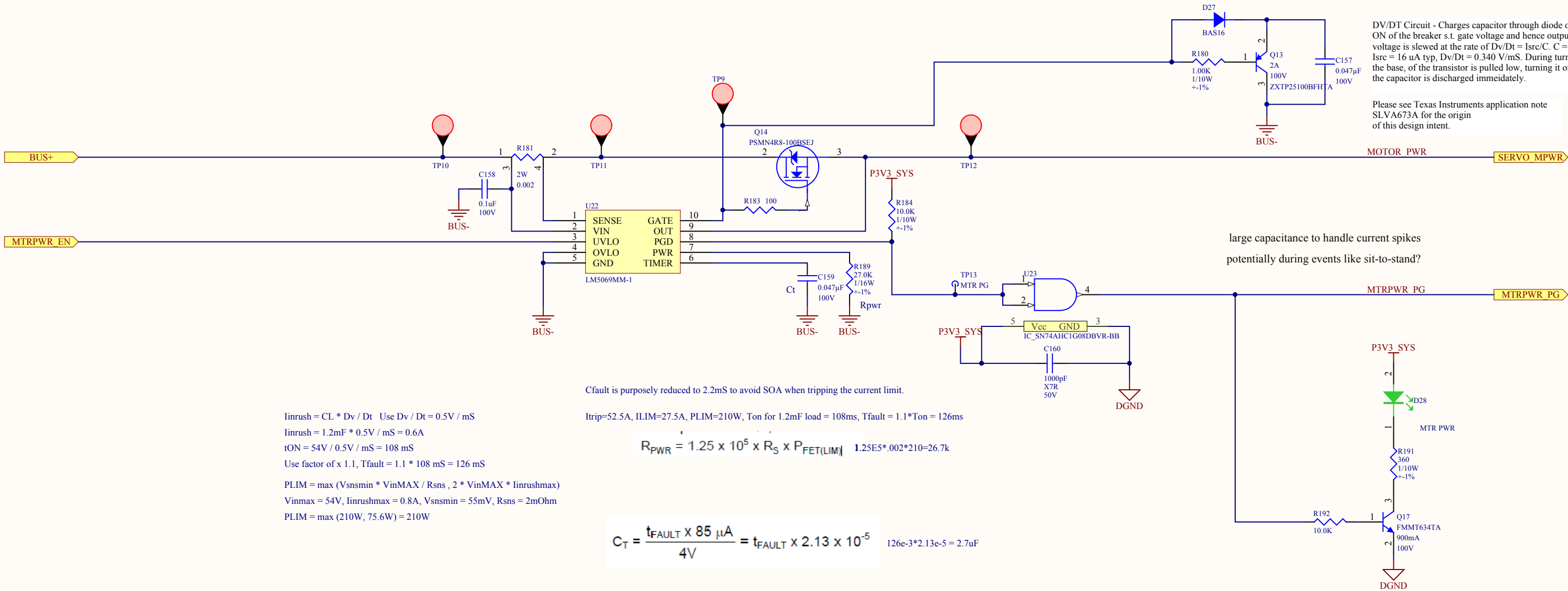
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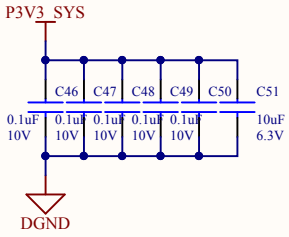
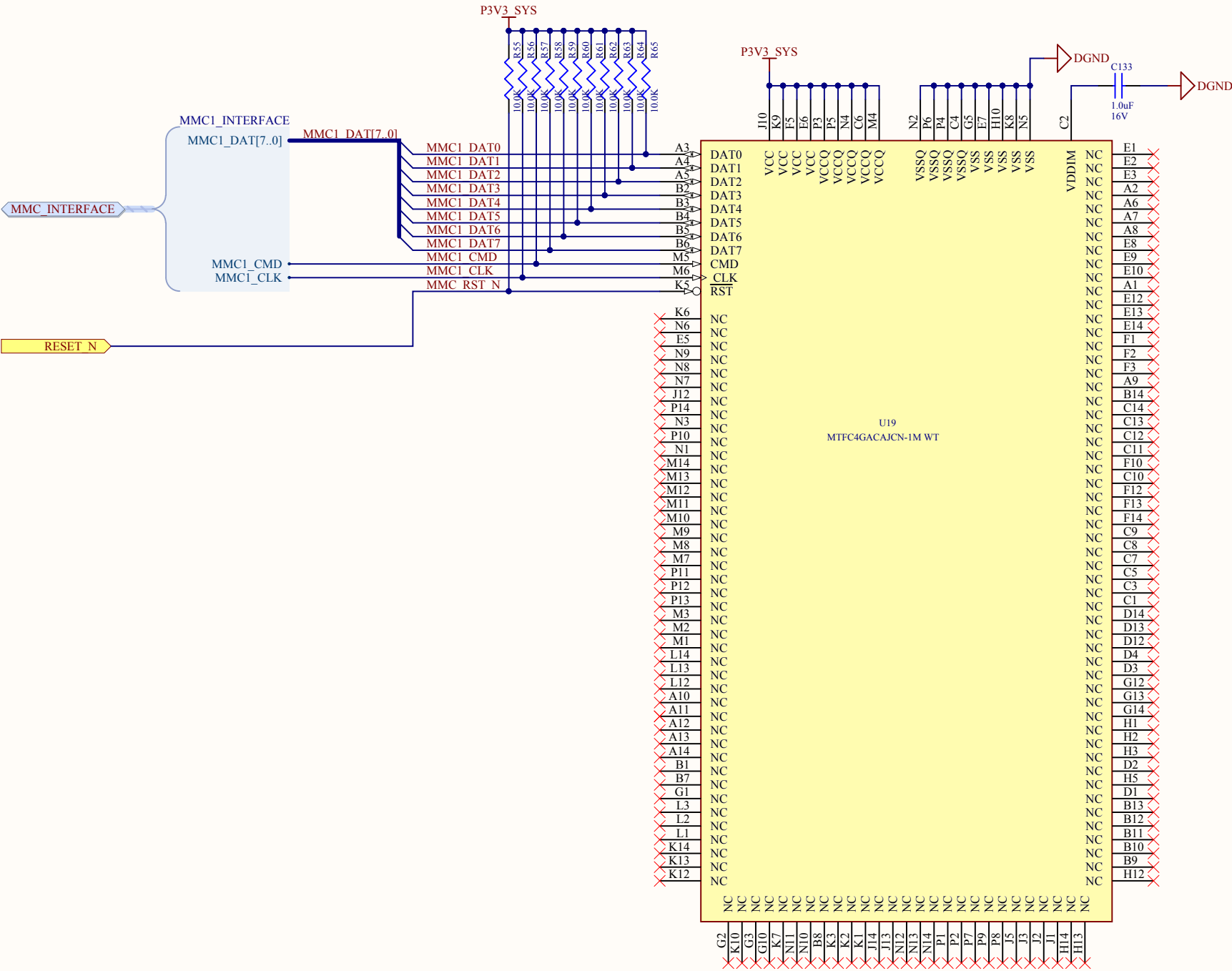
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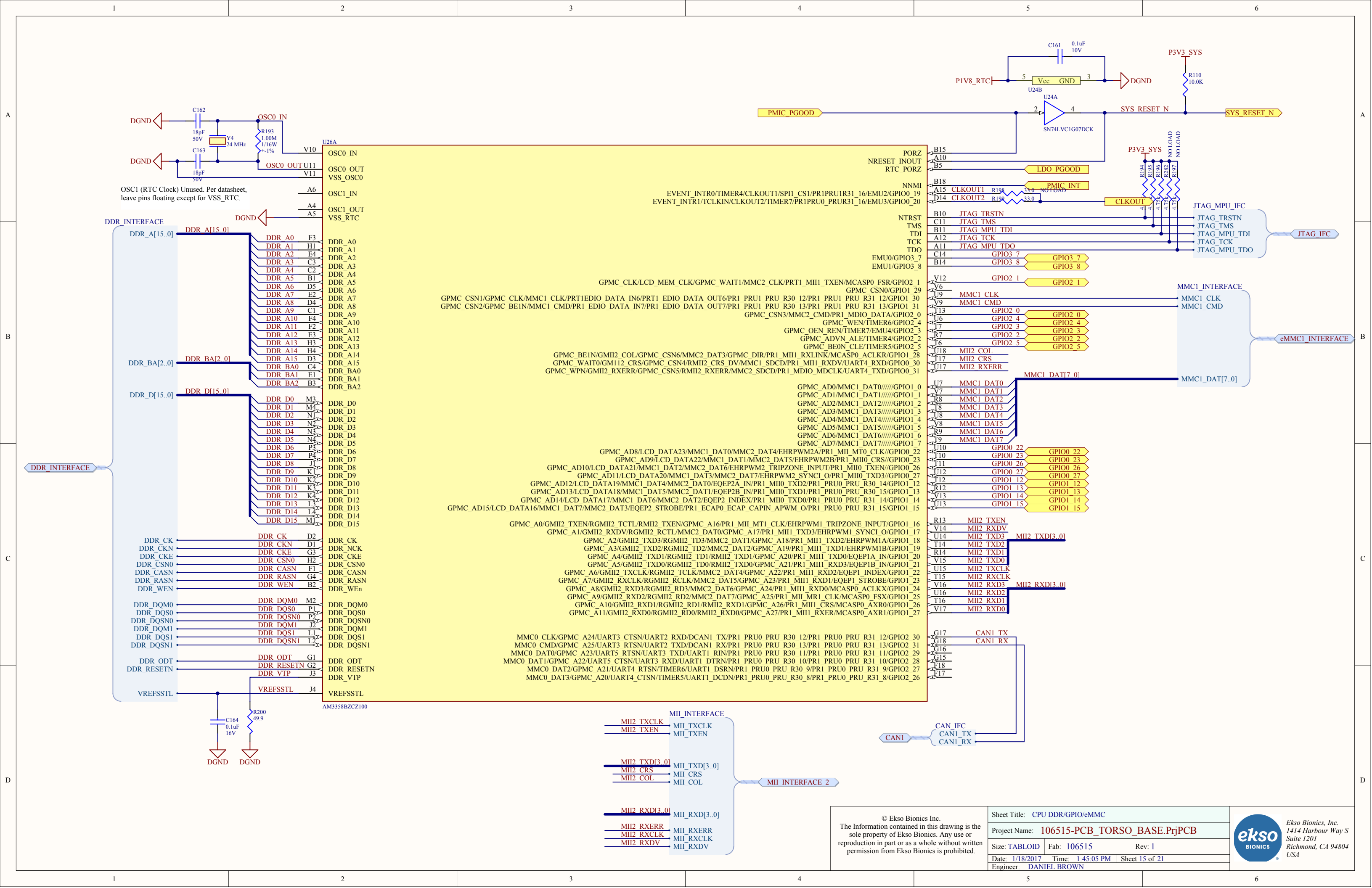
Engineer: DANIEL BROWN

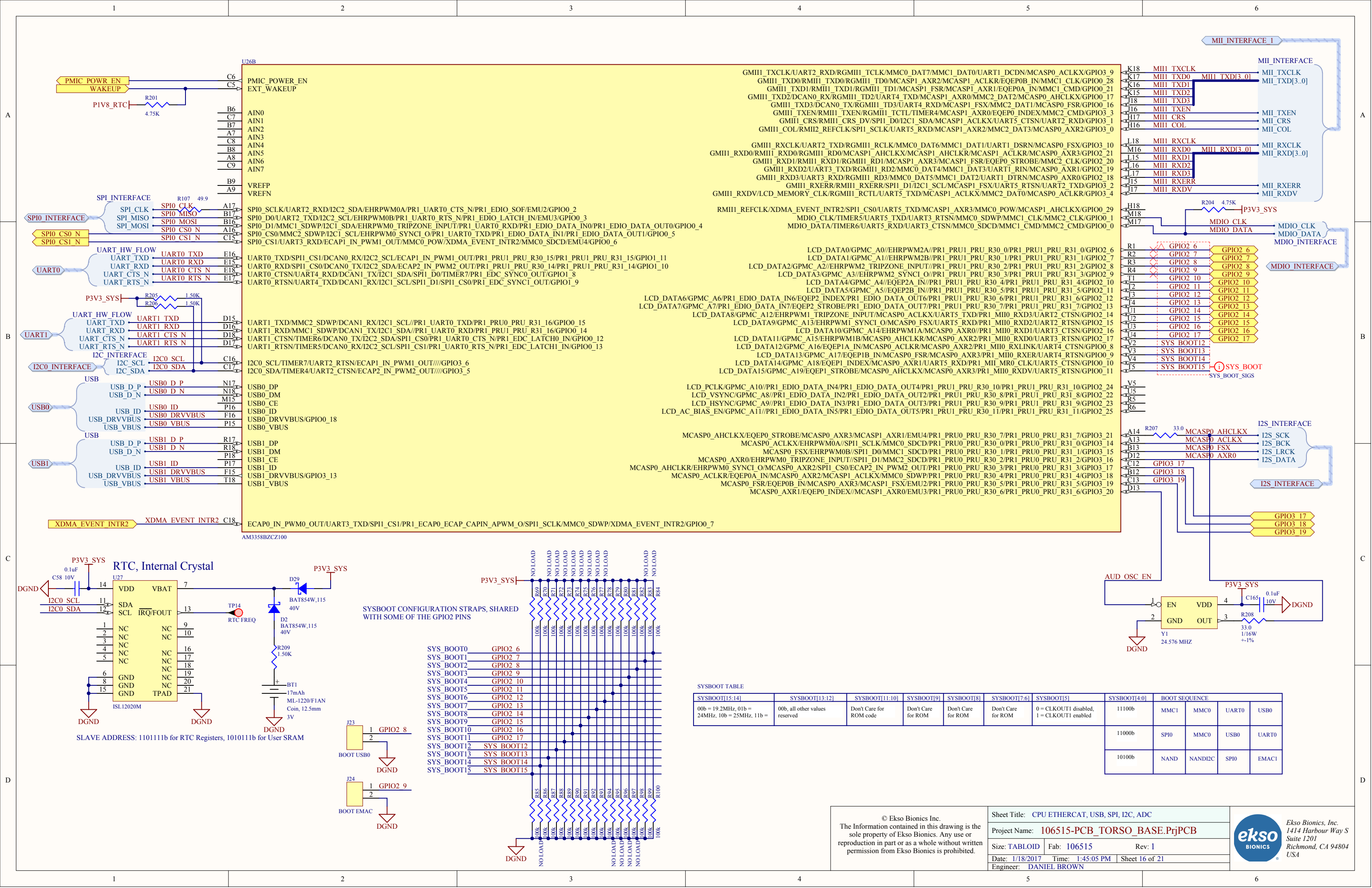


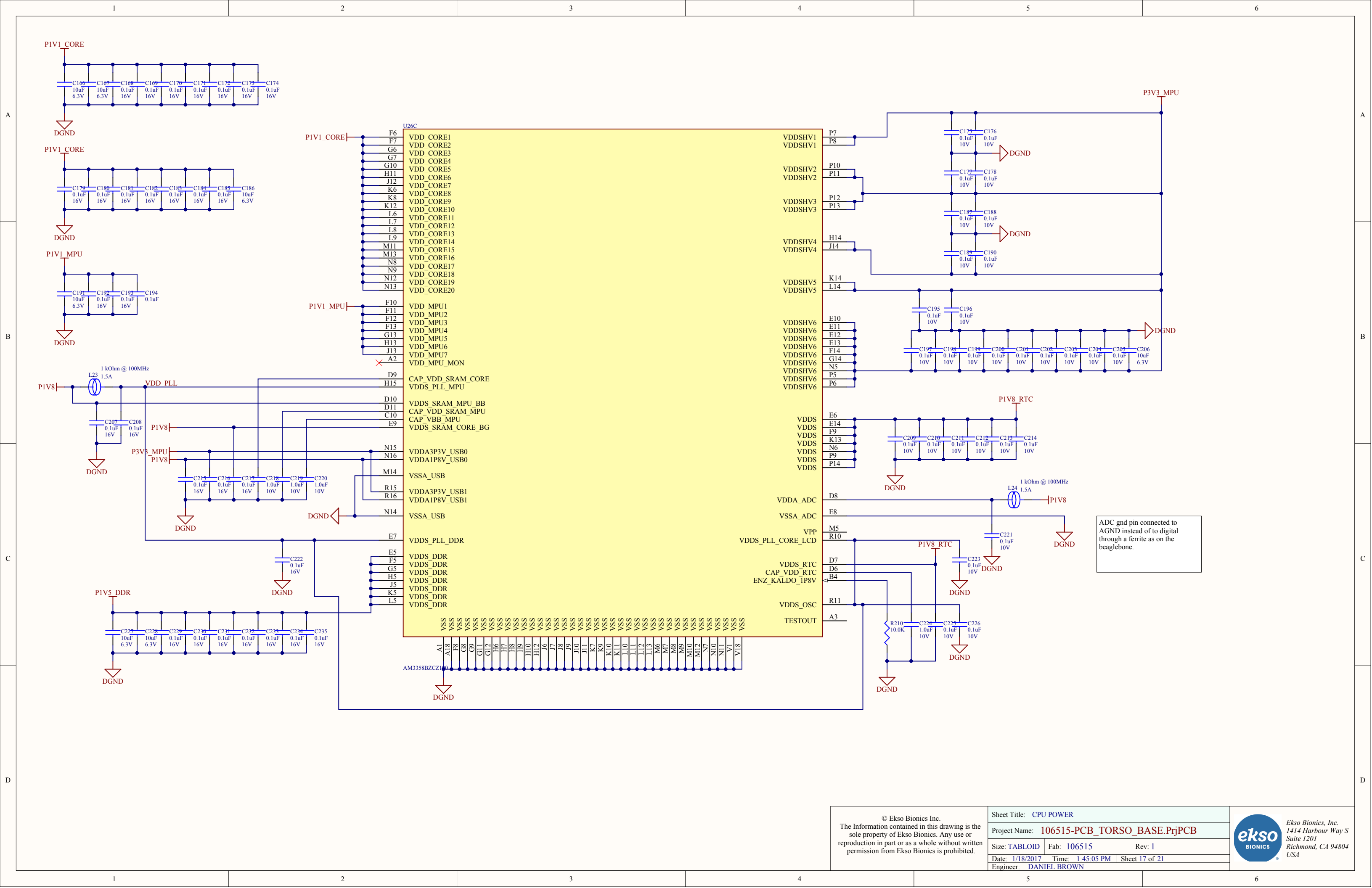
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Richmond, CA 94804
USA*

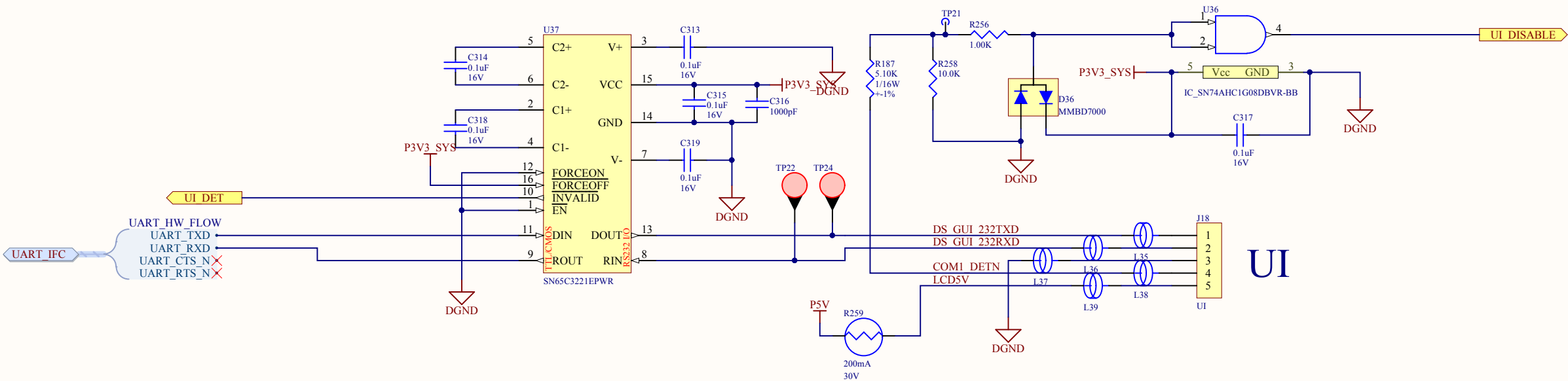


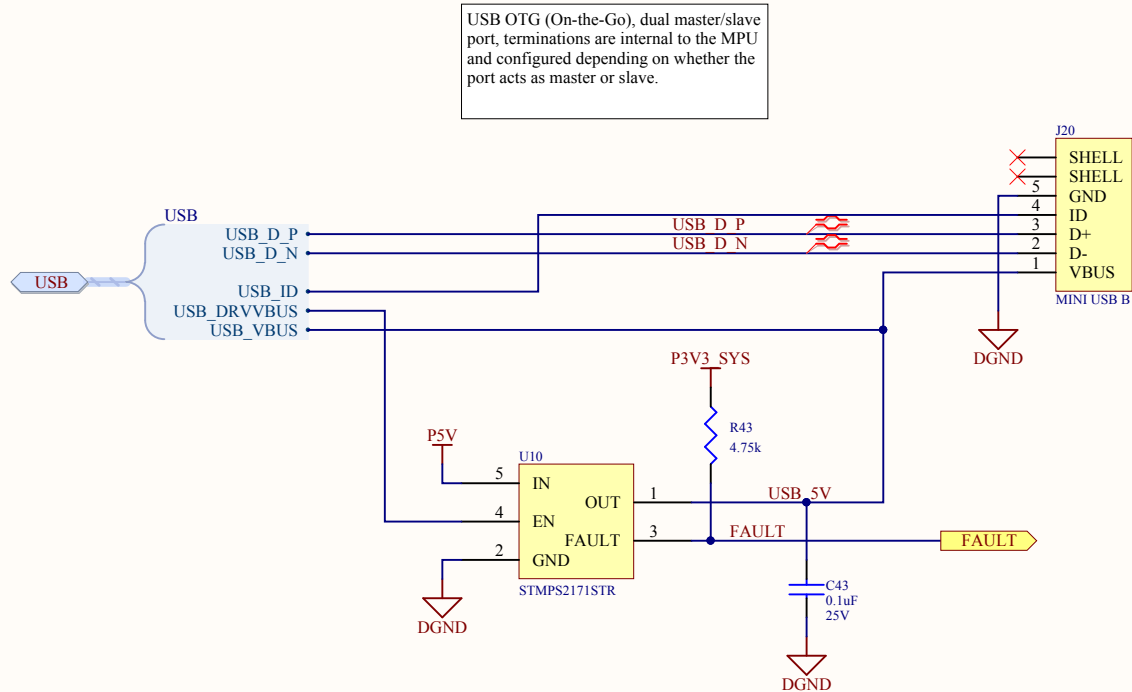












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Sheet Title: USB Connection

Project Name: 106515-PCB_TORSO_BASE.PrjPCB

Size: A

Fab: 106515

Rev: 1

Date: 1/18/2017

Time: 1:45:07 PM

Sheet 21 of 21

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