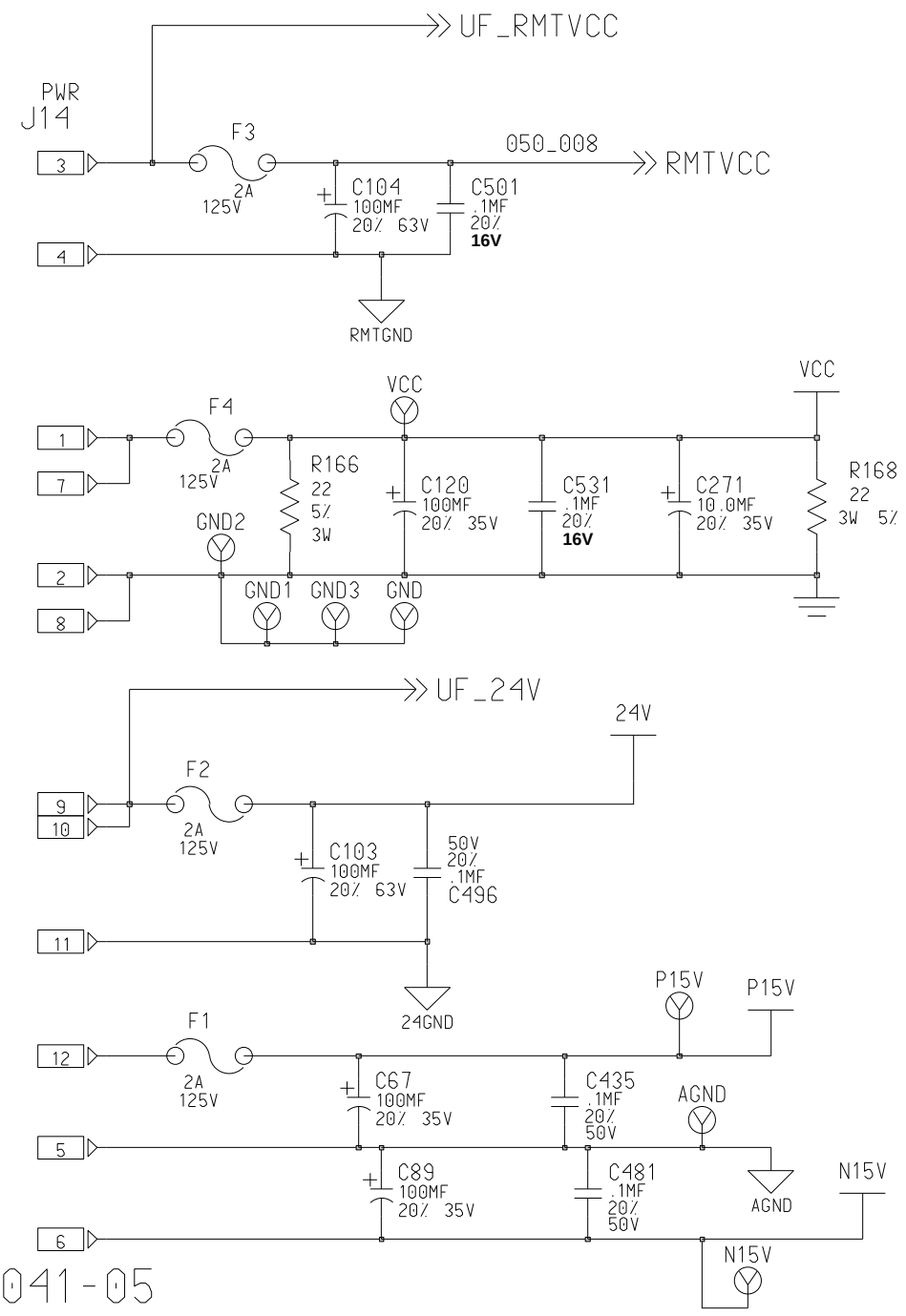
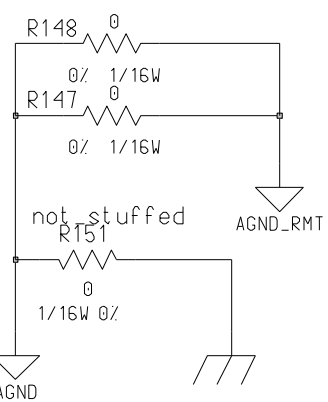
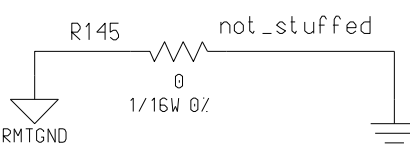


POWER DISTRIBUTION

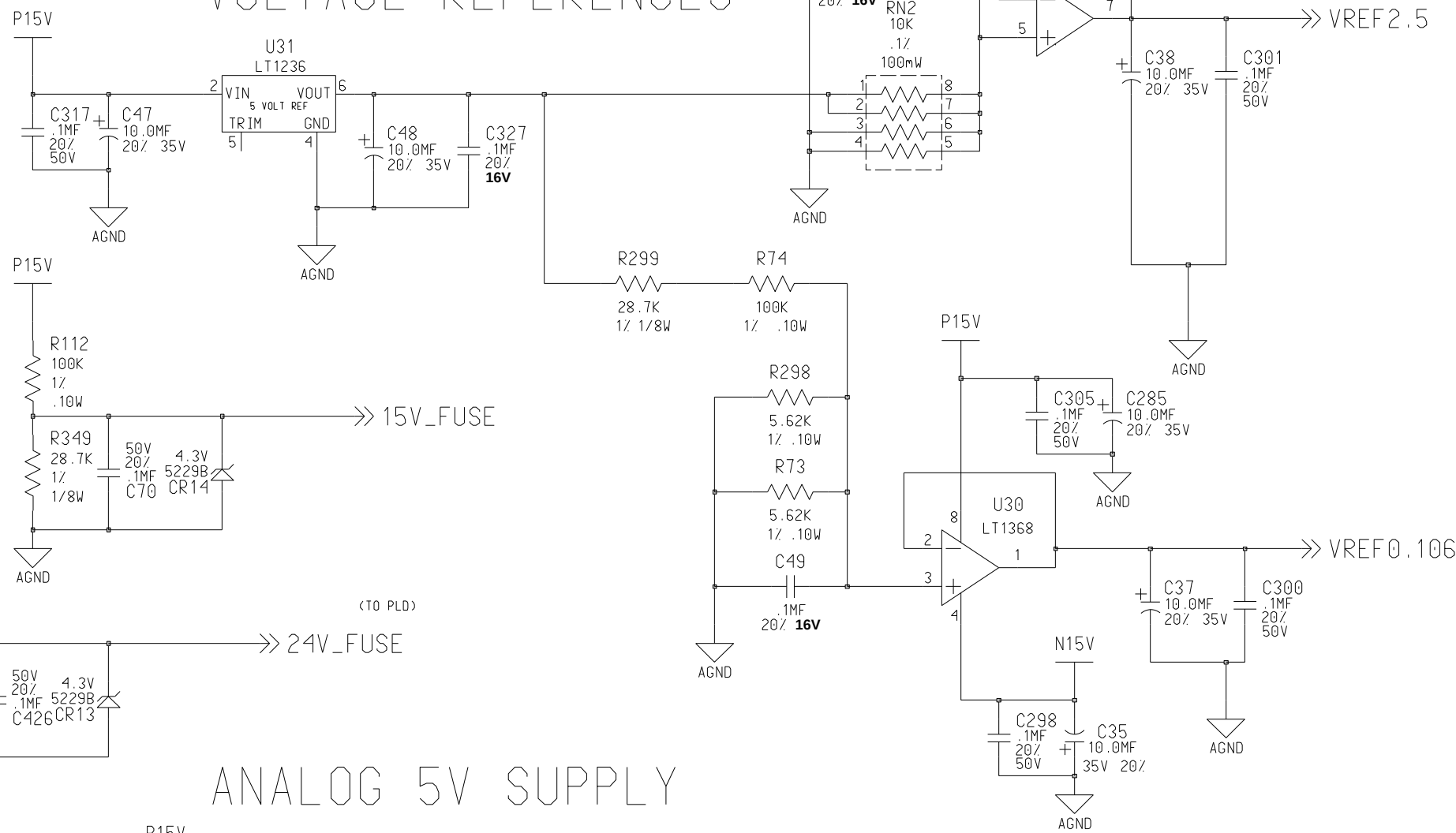


041-05

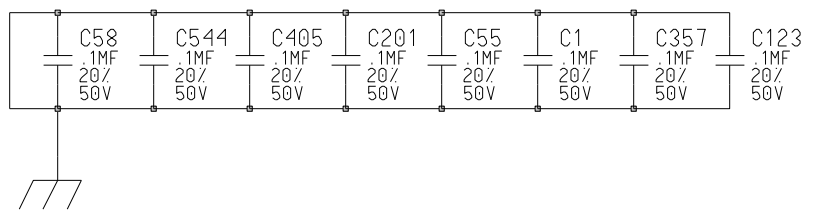
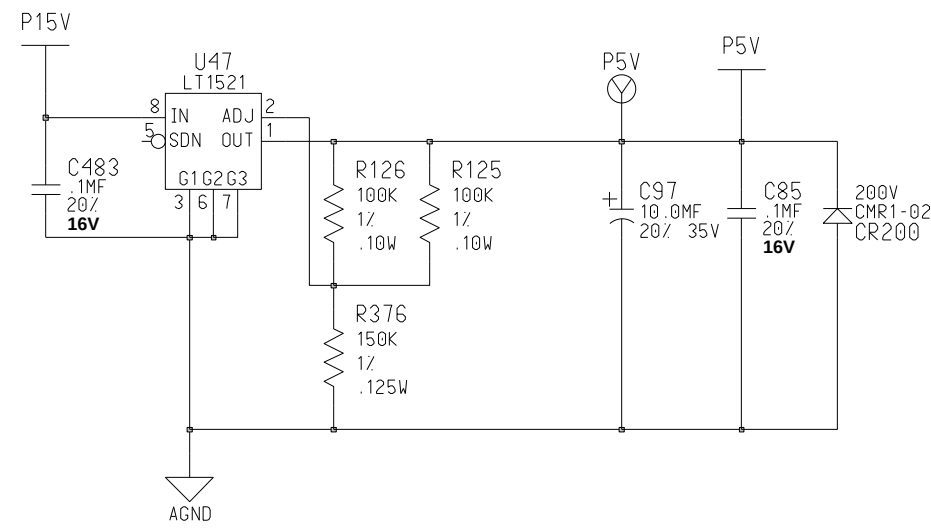
Place Near Power Connector



VOLTAGE REFERENCES

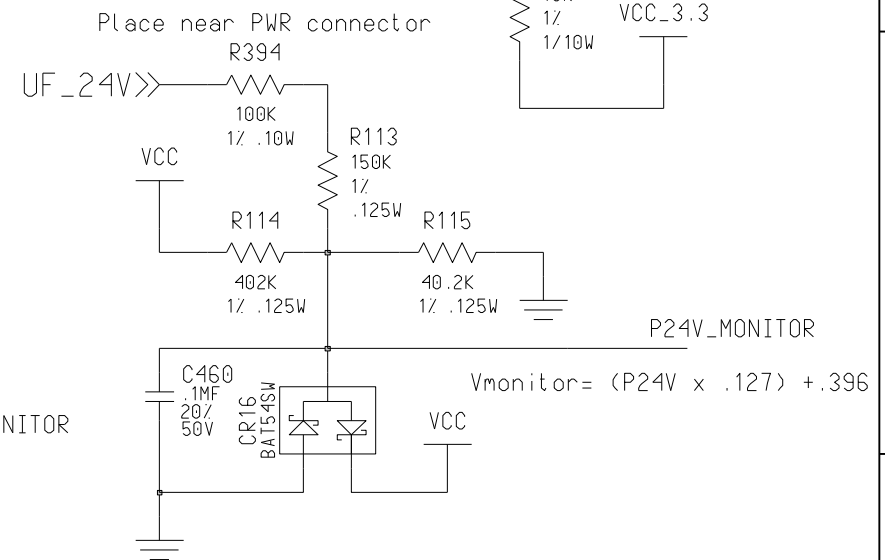
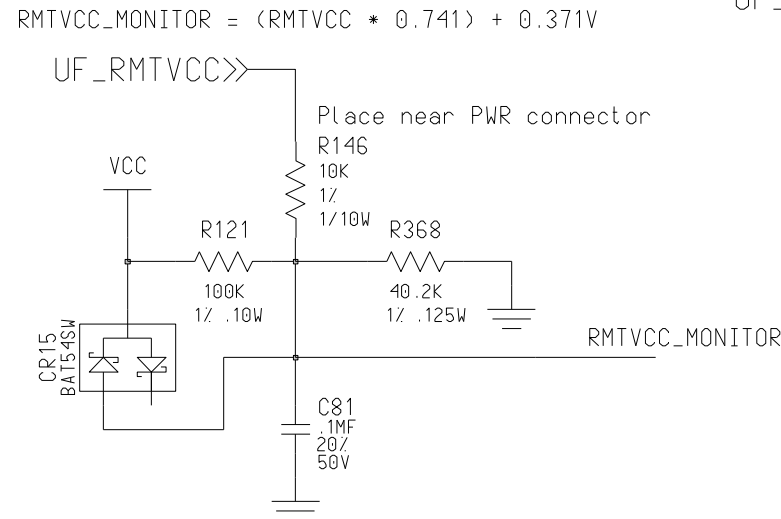
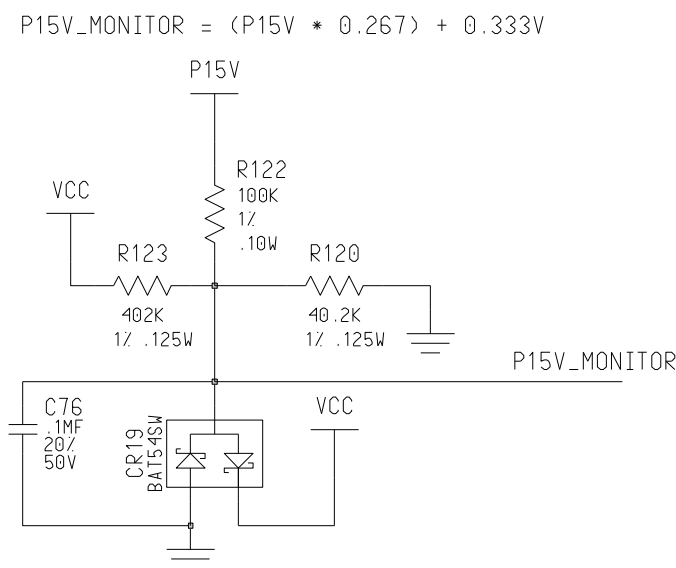
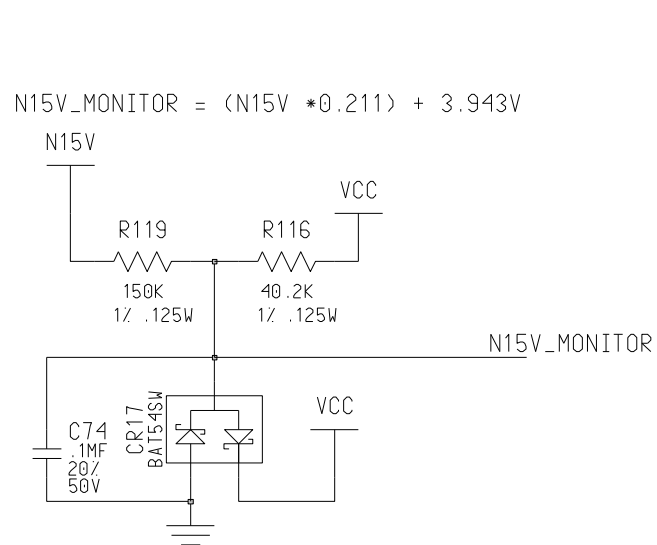
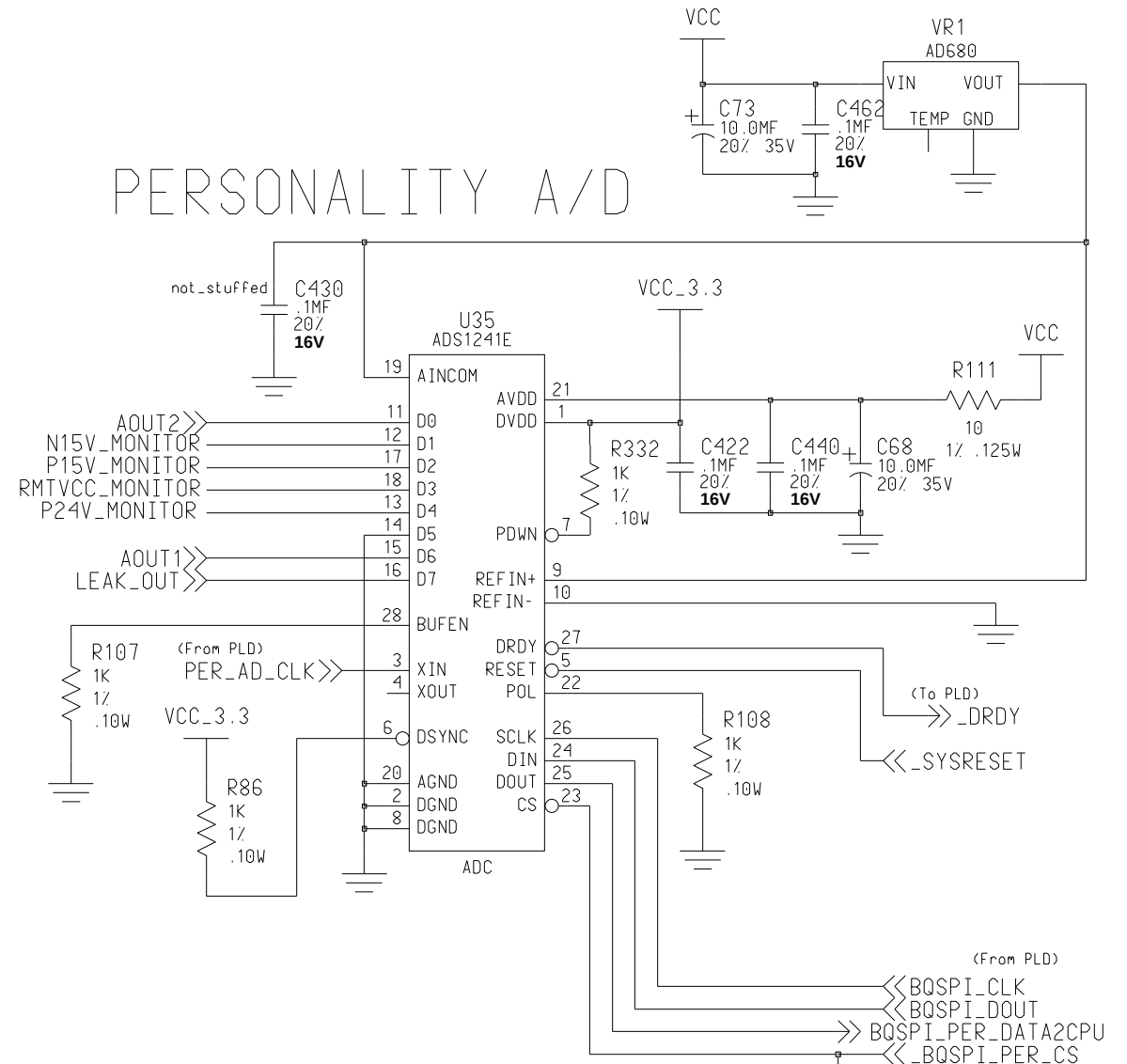
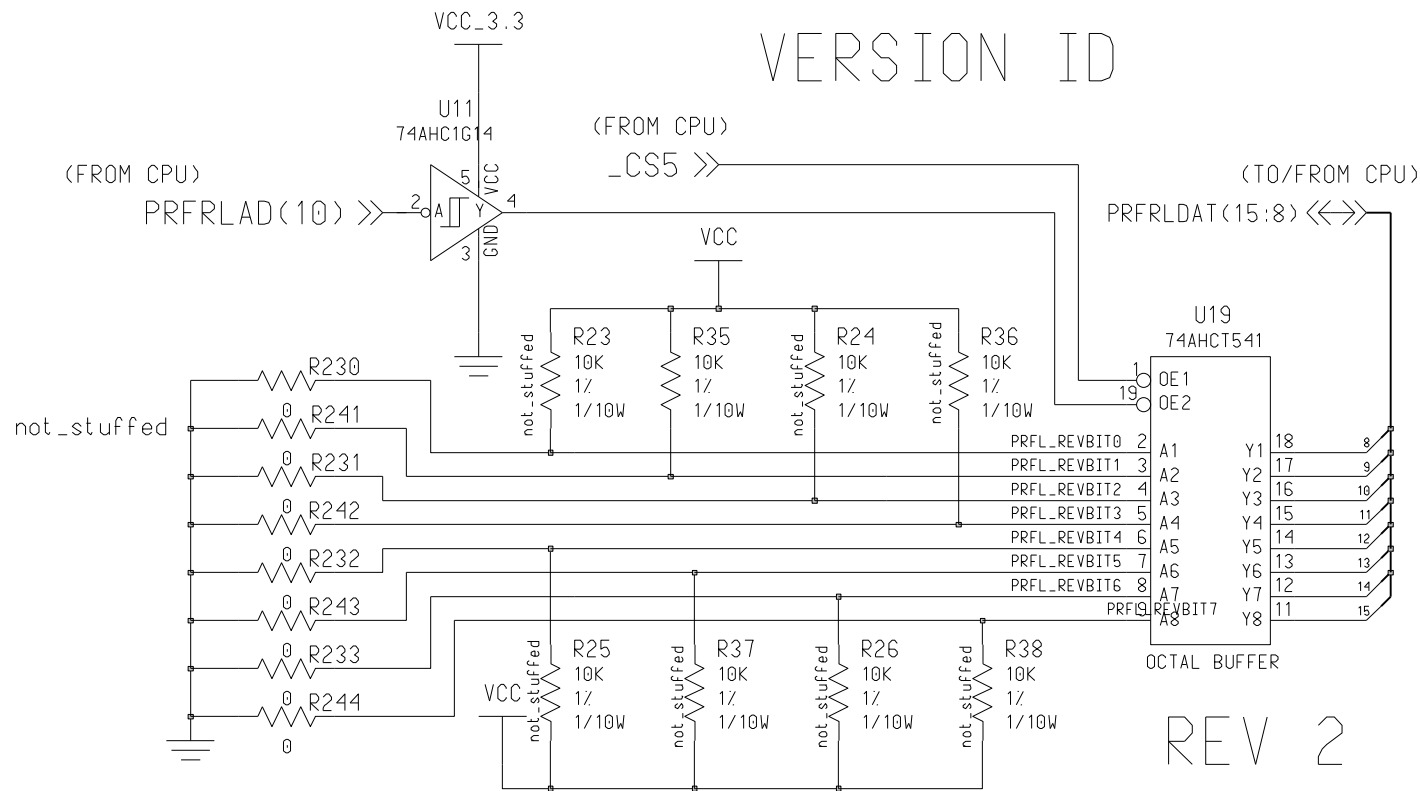


ANALOG 5V SUPPLY



NOTES:
1. UNLESS OTHERWISE SPECIFIED RESISTOR VALUES ARE EXPRESSED IN OHMS.

		DESIGN J. Deary	WATERS 34 MAPLE ST. MILFORD, MA 01757 U.S.A.		
		DRAWN J. Deary			
LAST UPDATE 3/5/2007 10:35	USER lavertyd	CHECKED	TITLE SCHEM, PCB 2998 CLASSIC PERS.		
PATHNAME \$ACTIVE/210000292_Feef_2998_Classic_Pers_Brd		ENGINEER			
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		APPD	MENTOR DESIGN ARCHITECT		Sheet 1 of 22



POWER SUPPLY MONITORS

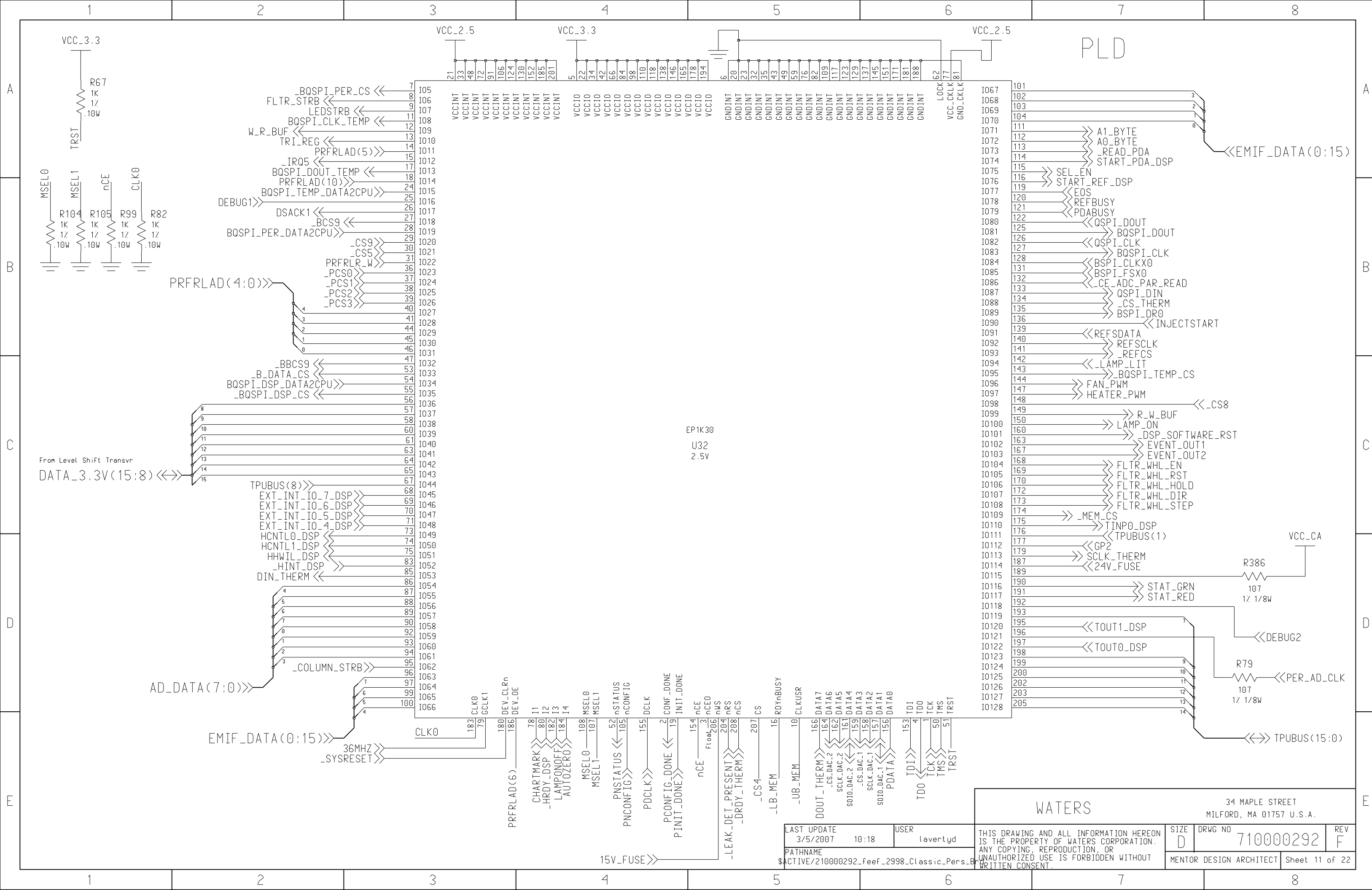
WATERS

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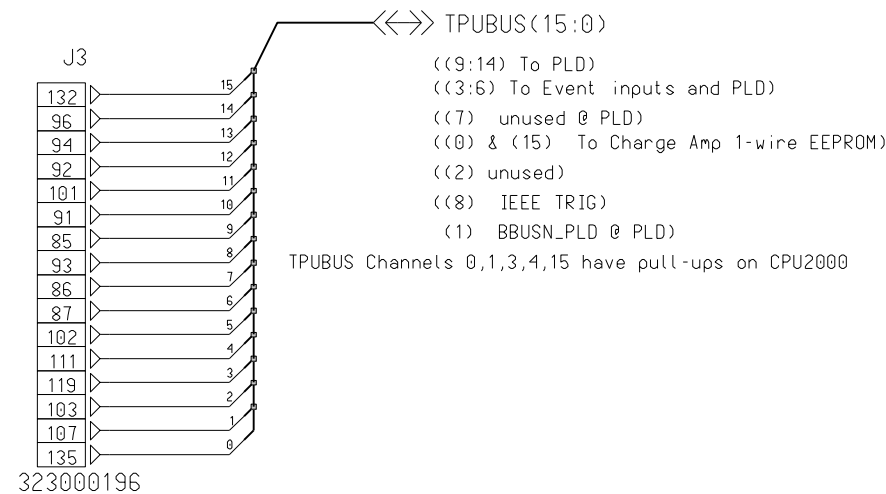
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SIZE	D	DRWG NO	710000292	REV	F
MENTOR DESIGN ARCHITECT			Sheet 10 of 22		

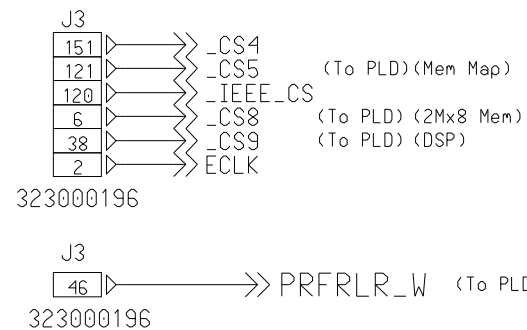


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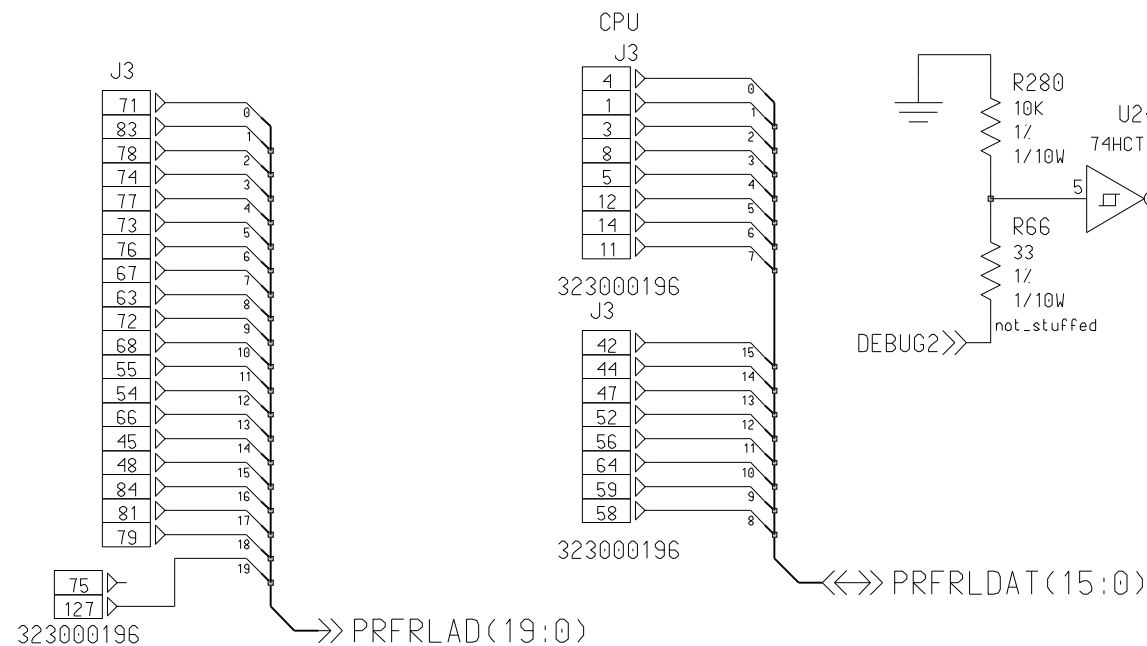
TPUBUS INTERFACE



CHIP SELECT & R/W INTERFACE

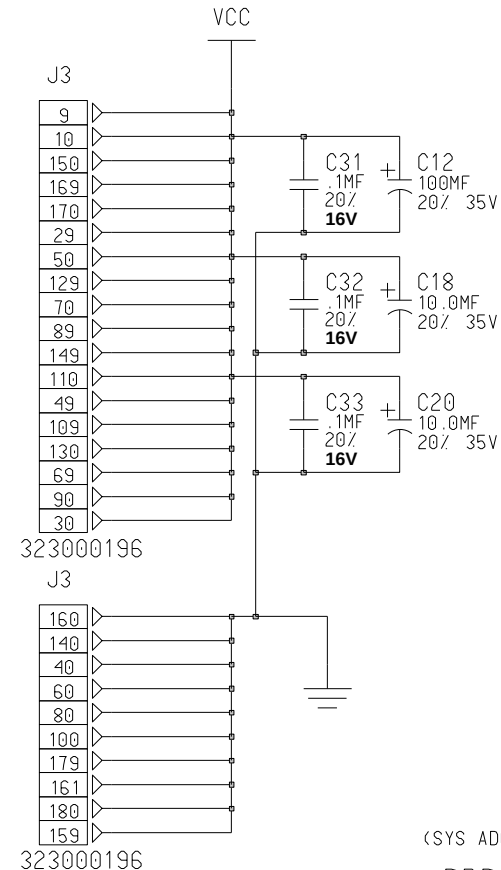


DATA & ADDRESS INTERFACE

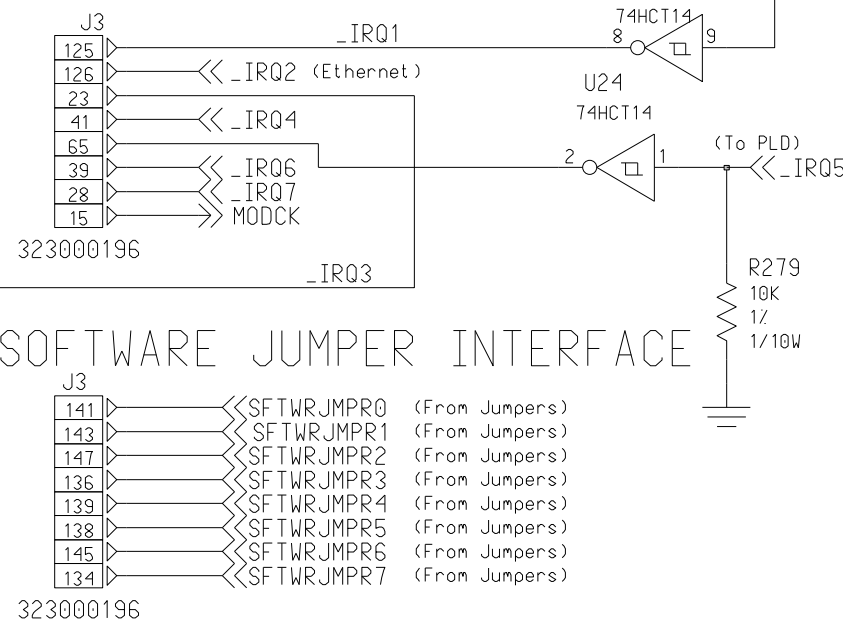


Address 20 and 19 are swapped on CPU2000!!

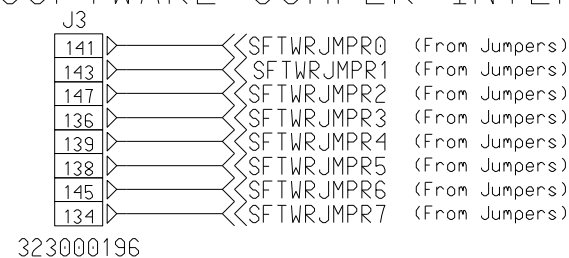
POWER INTERFACE



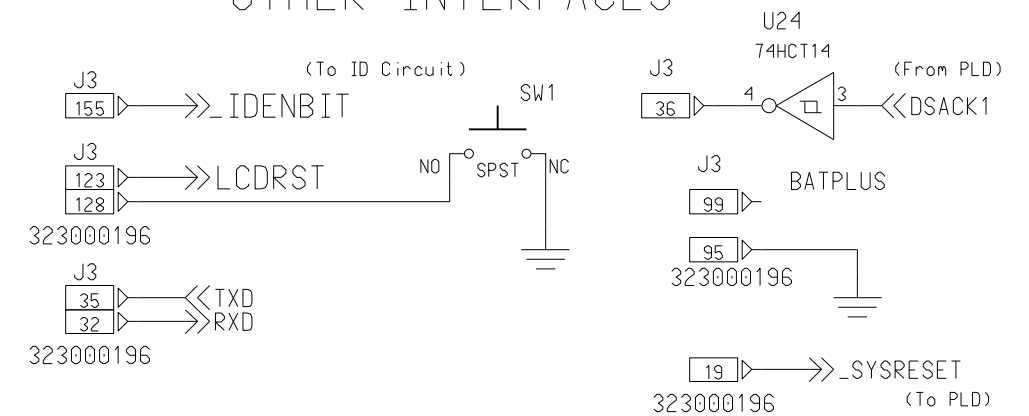
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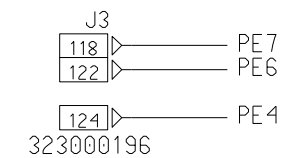
SOFTWARE JUMPER INTERFACE



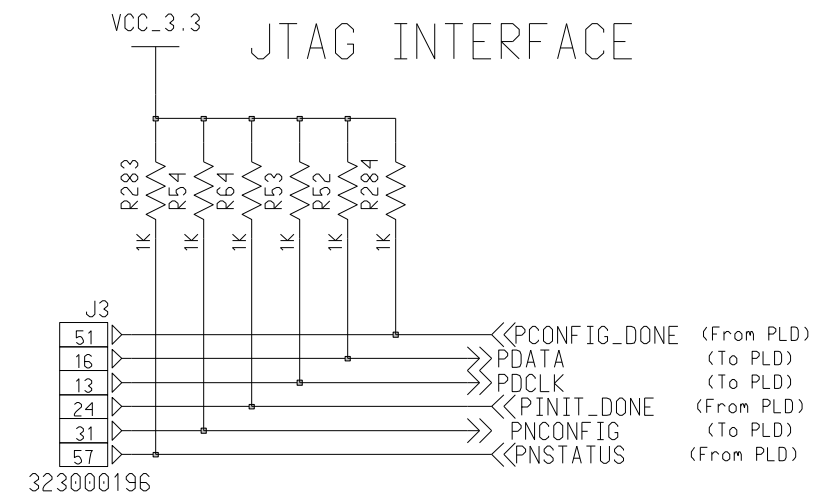
OTHER INTERFACES



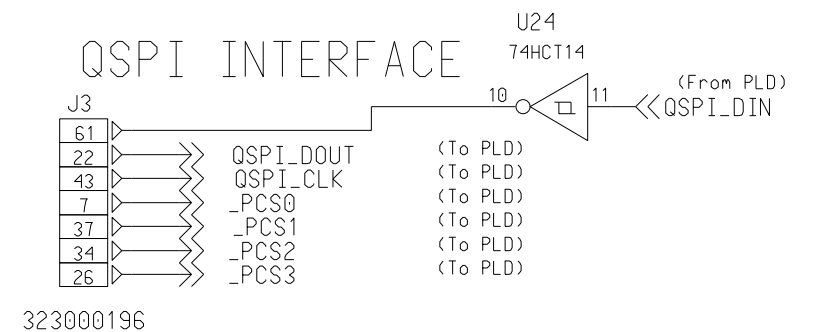
I/O PORTS INTERFACE



JTAG INTERFACE



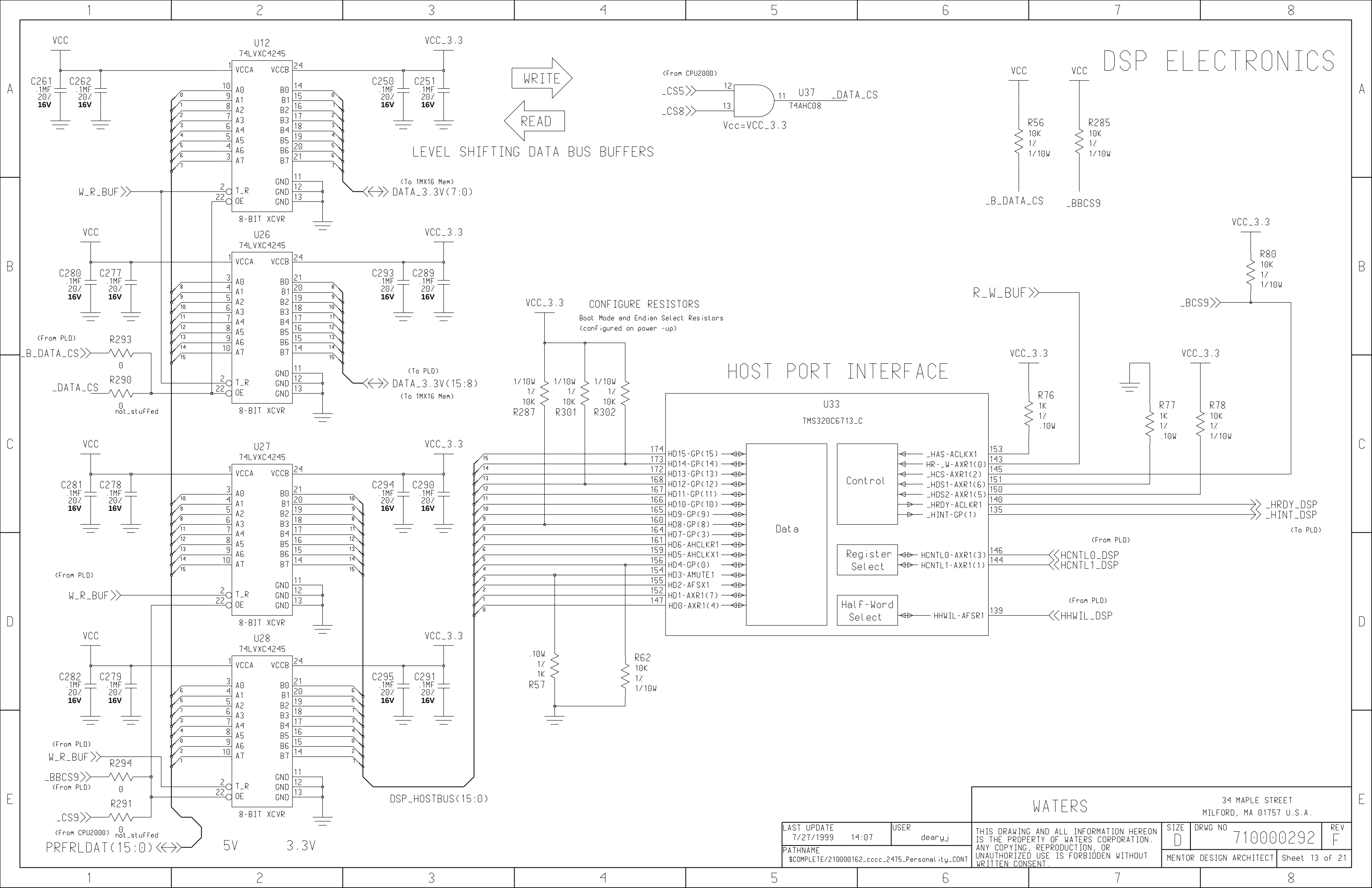
QSPI INTERFACE



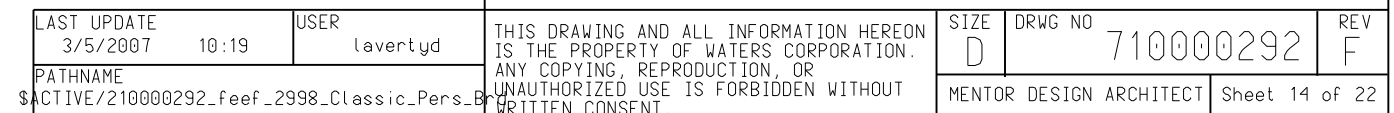
WATERS

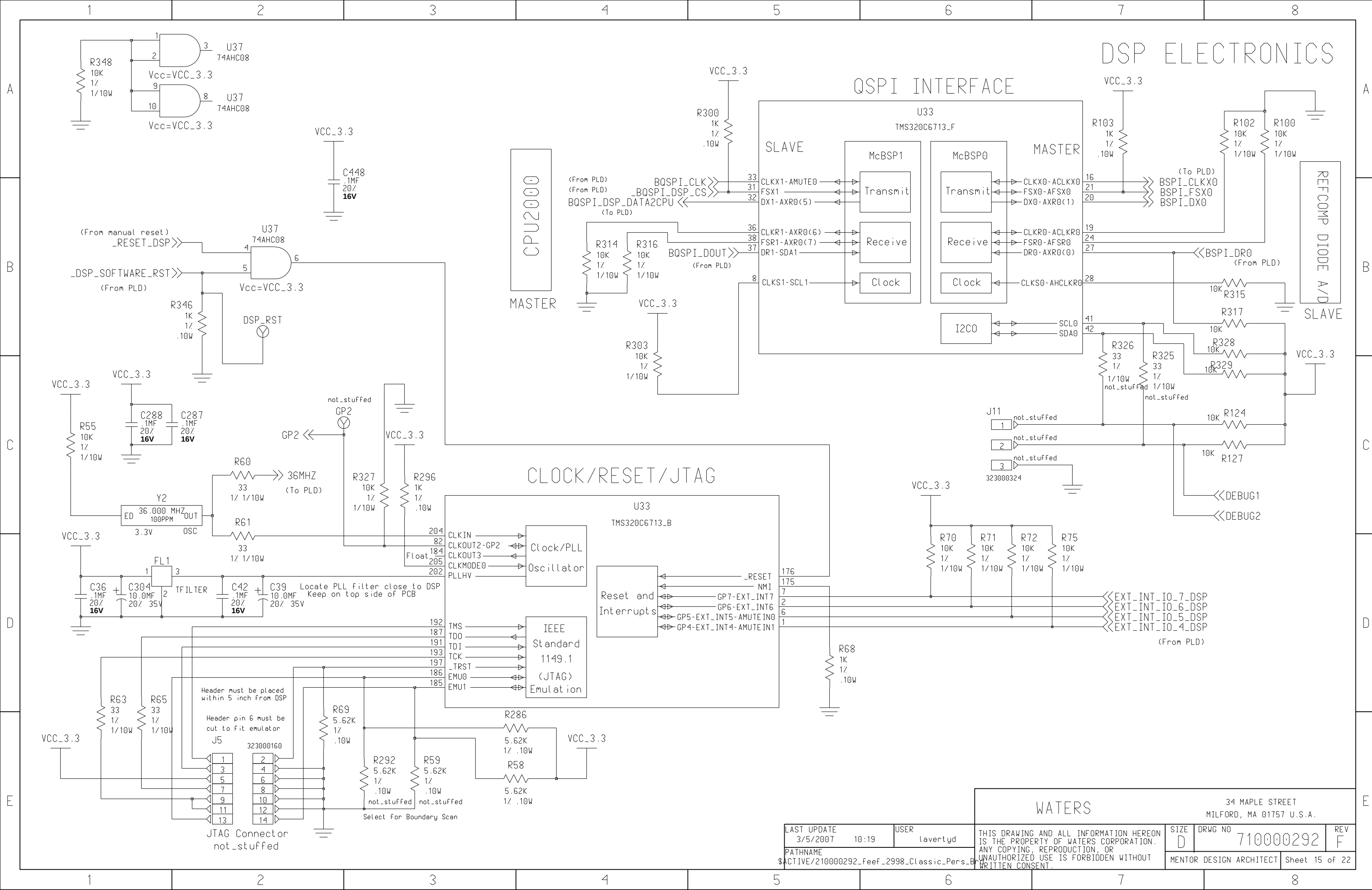
34 MAPLE STREET
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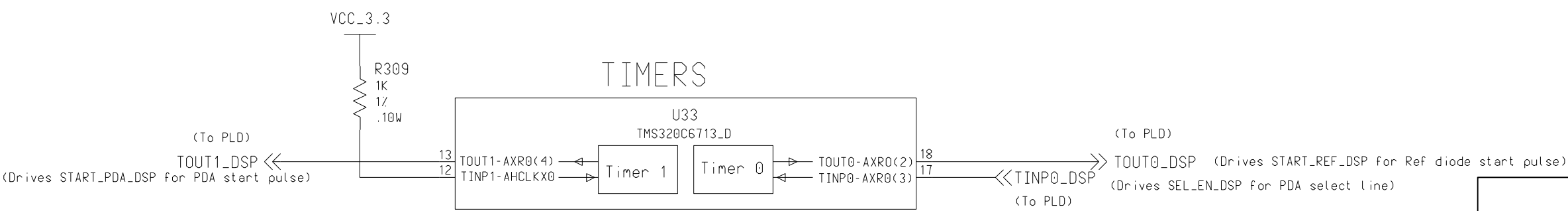
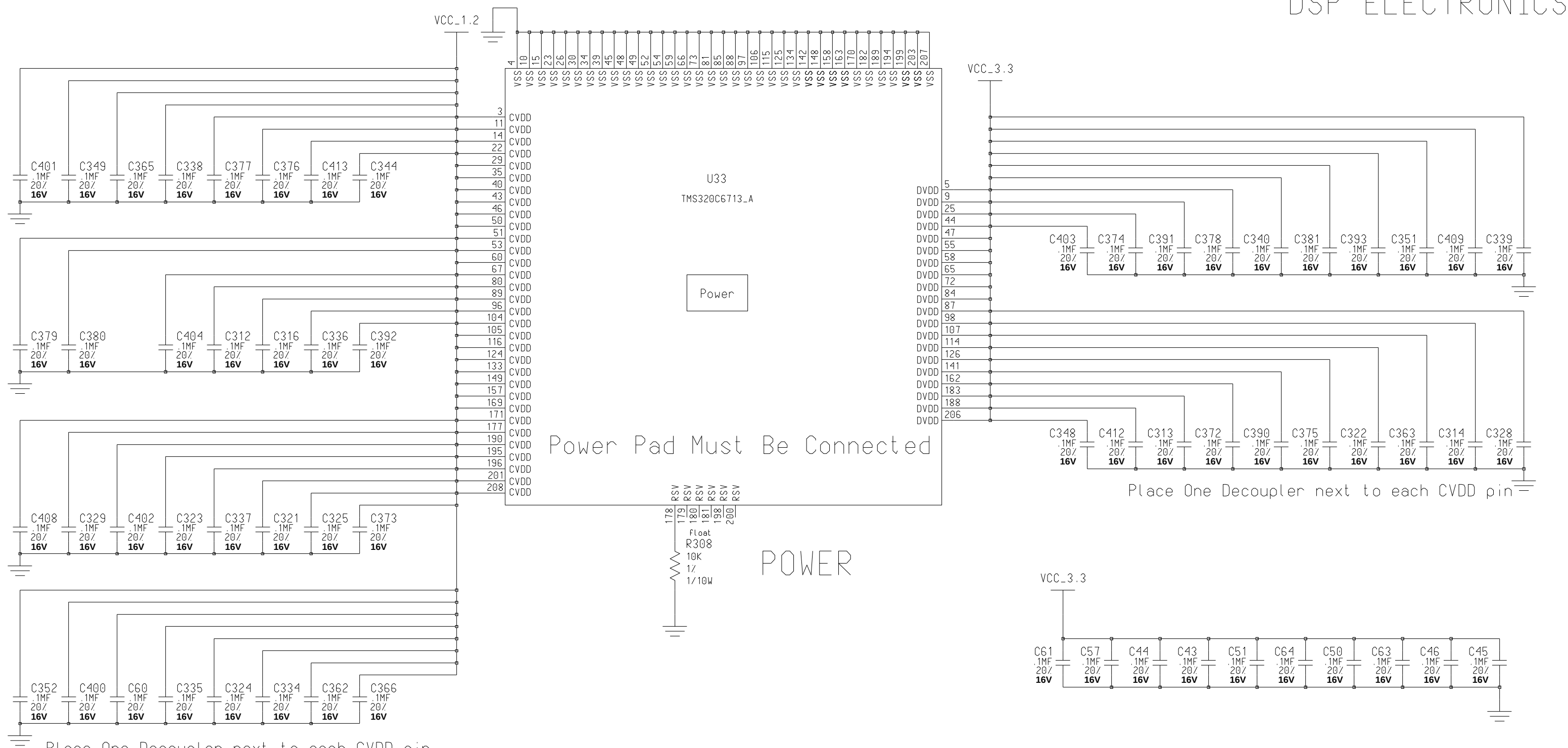
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PATHNAME \$ACTIVE/210000292_feef_2998_Classic_Pers-D			MENTOR DESIGN ARCHITECT	Sheet 12 of 22	



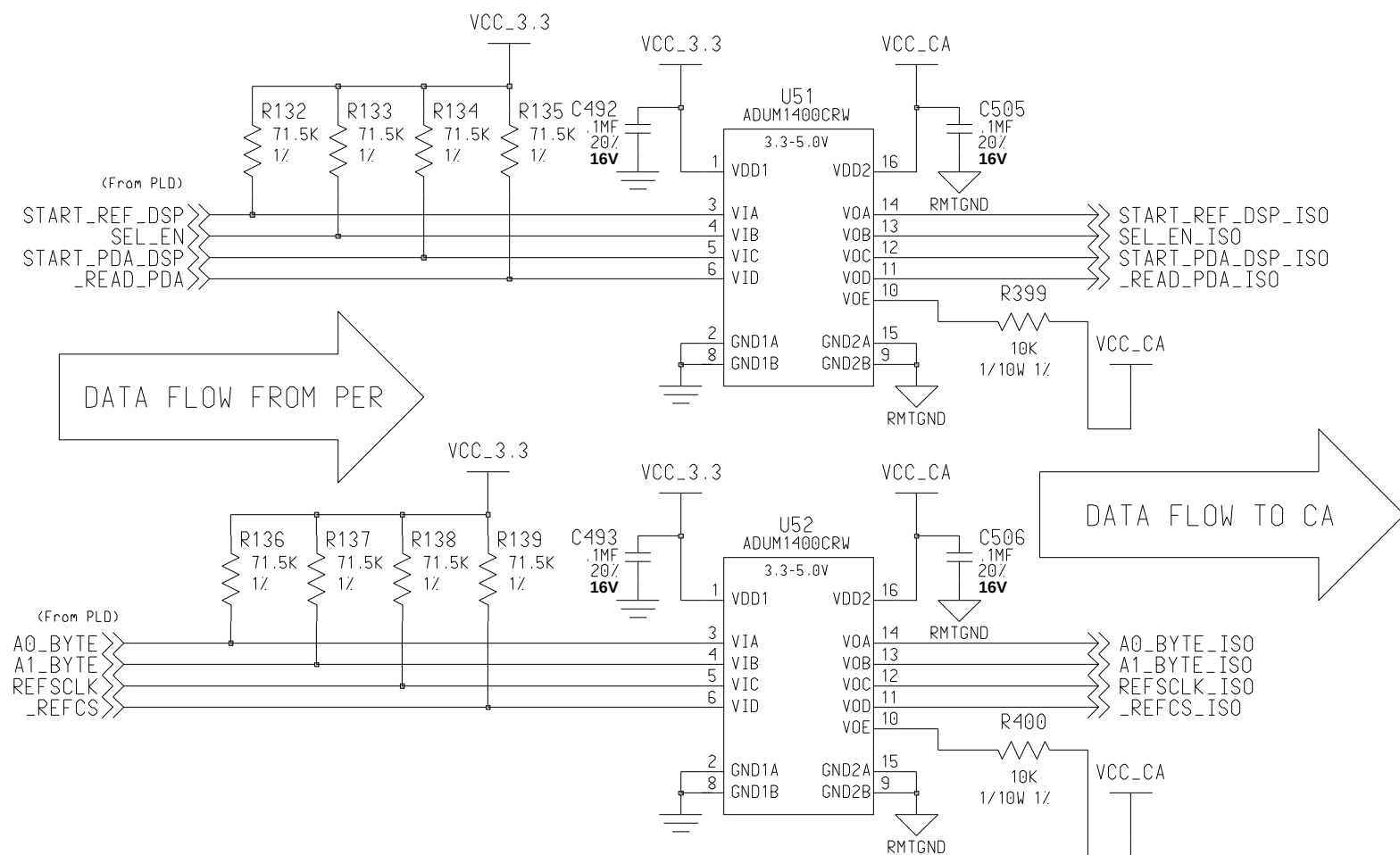
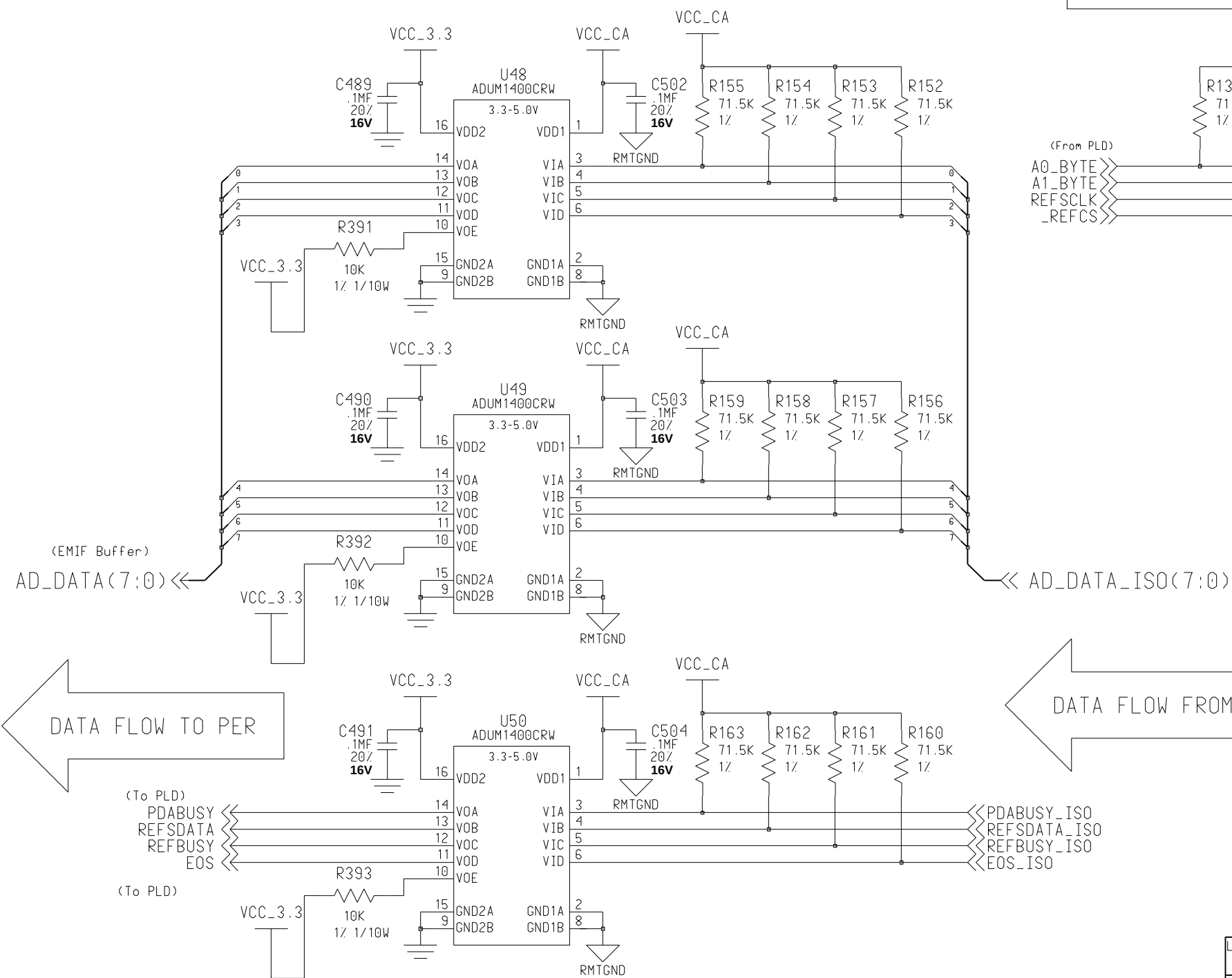
DSP ELECTRONICS





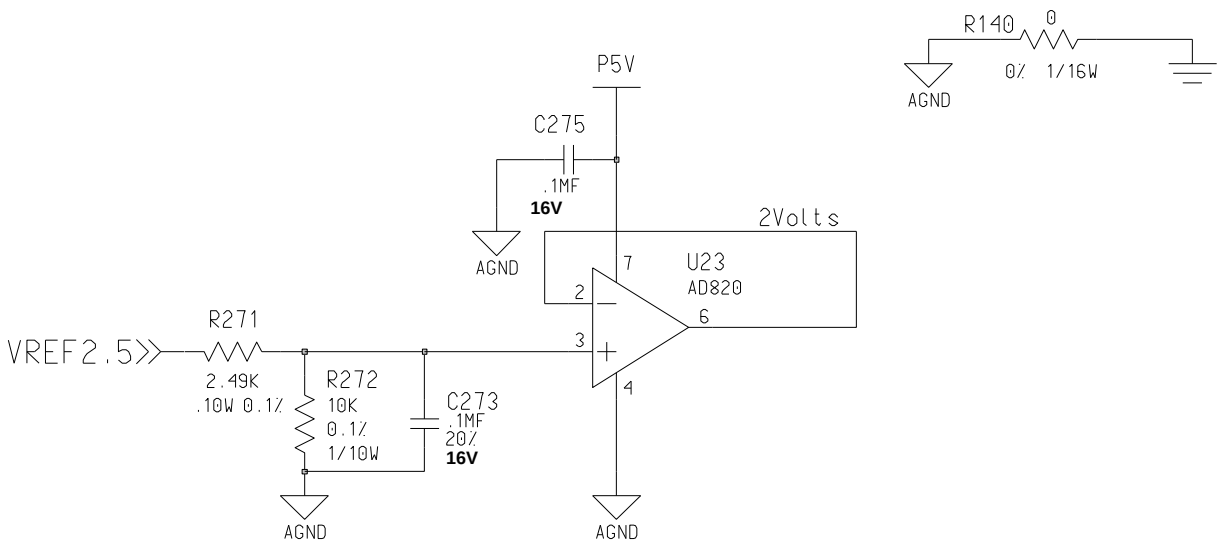
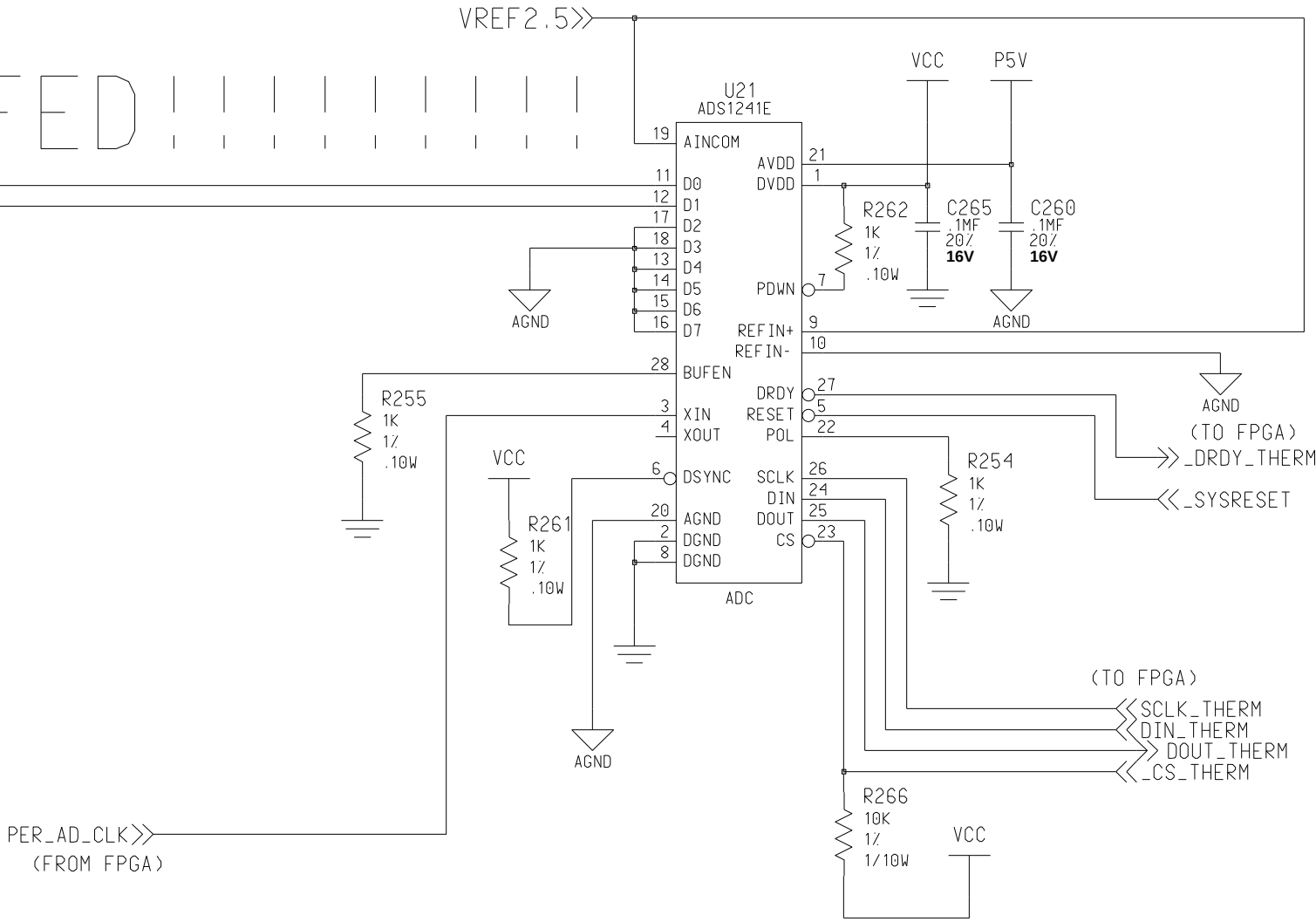
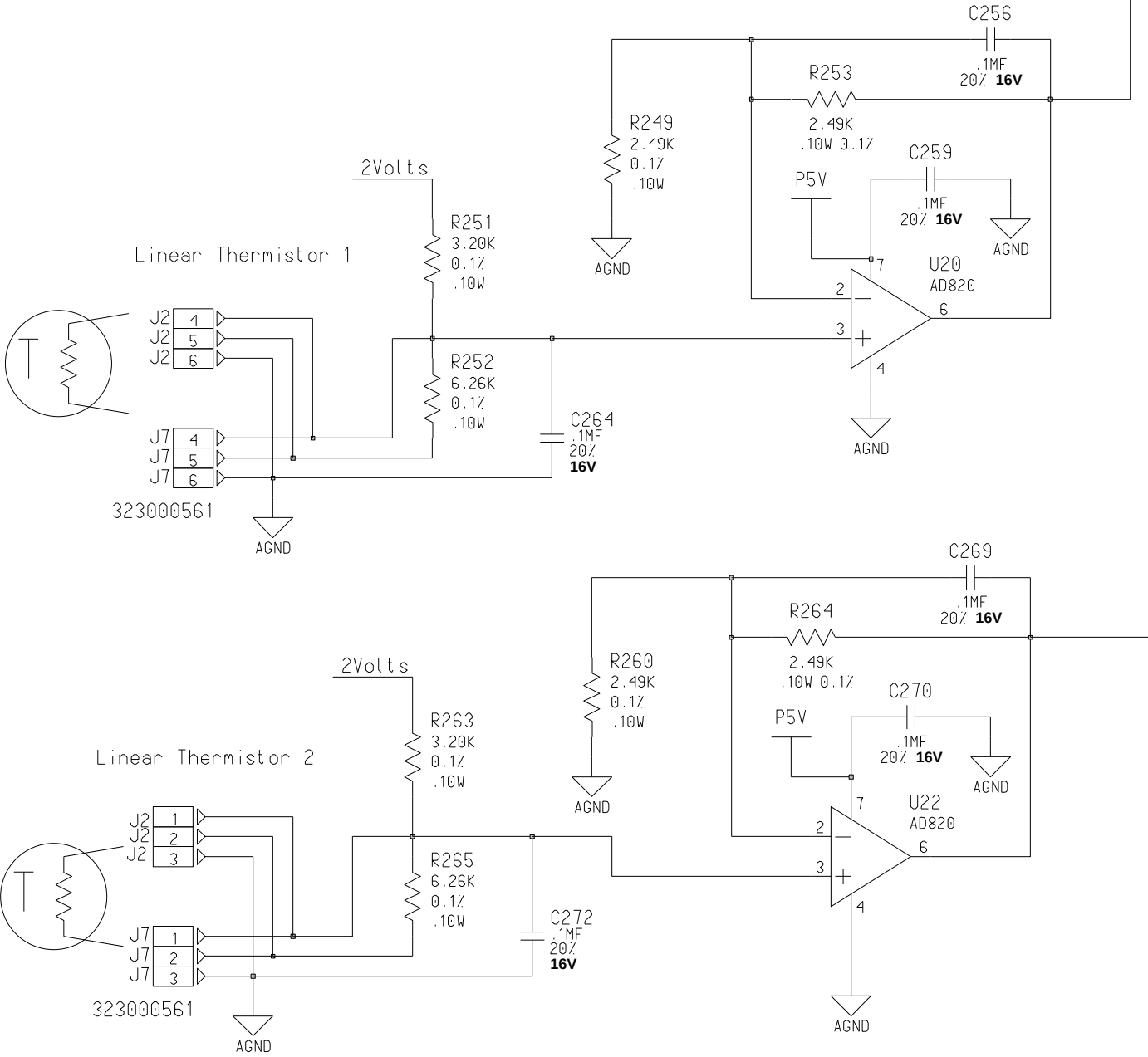


ISOLATED CONTROL SIGNALS FROM CA



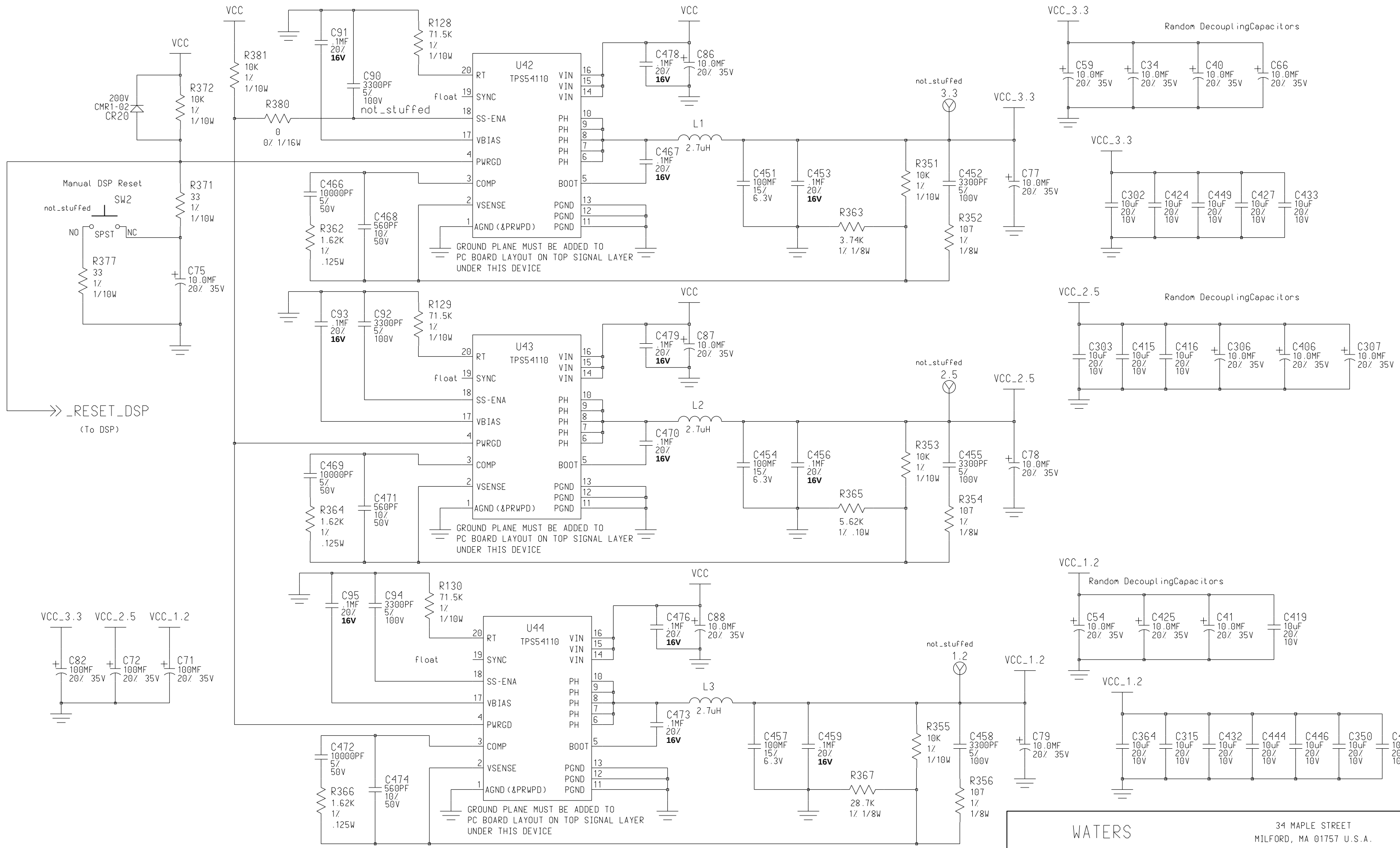
THERMISTOR CIRCUITS

ENTIRE PAGE IS NOT STUFFED!!!!!!!!!!!!



WATERS

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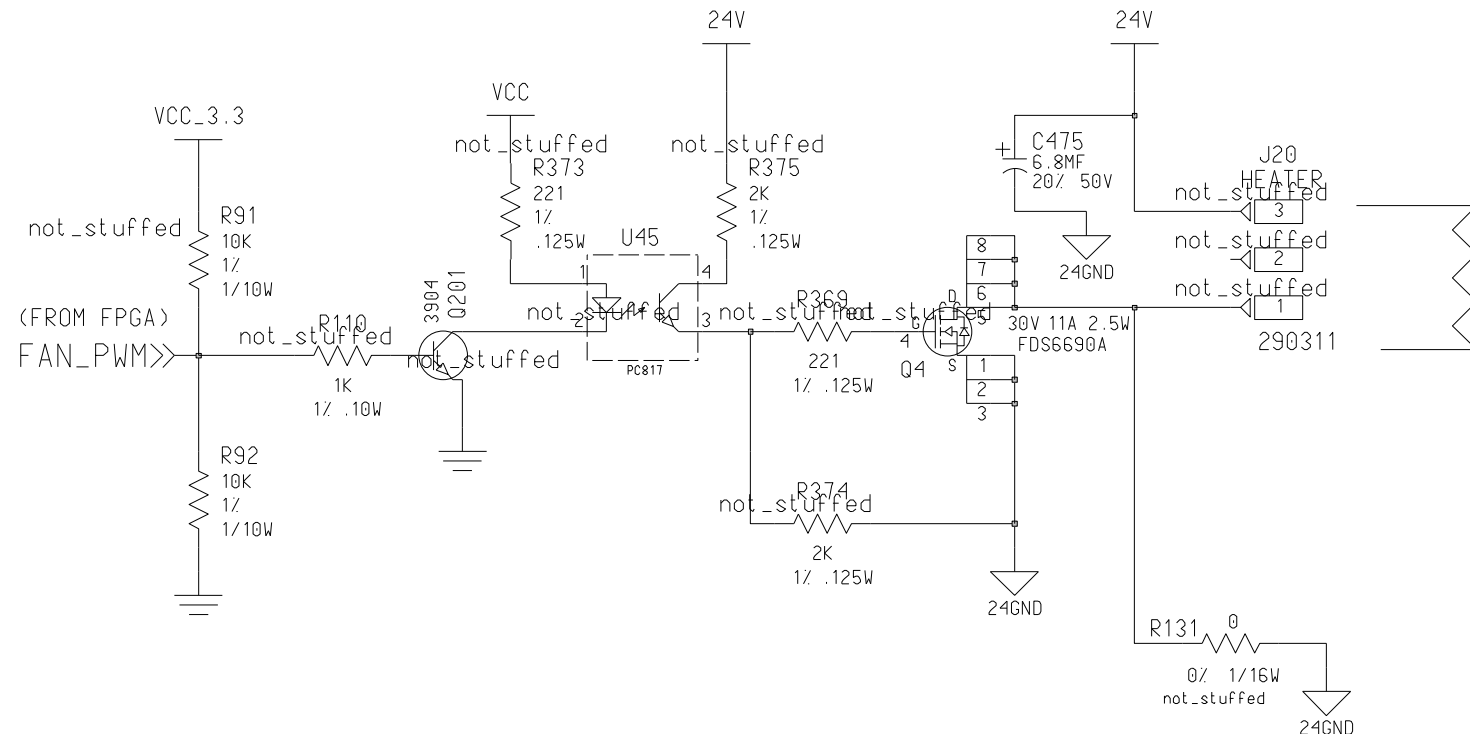
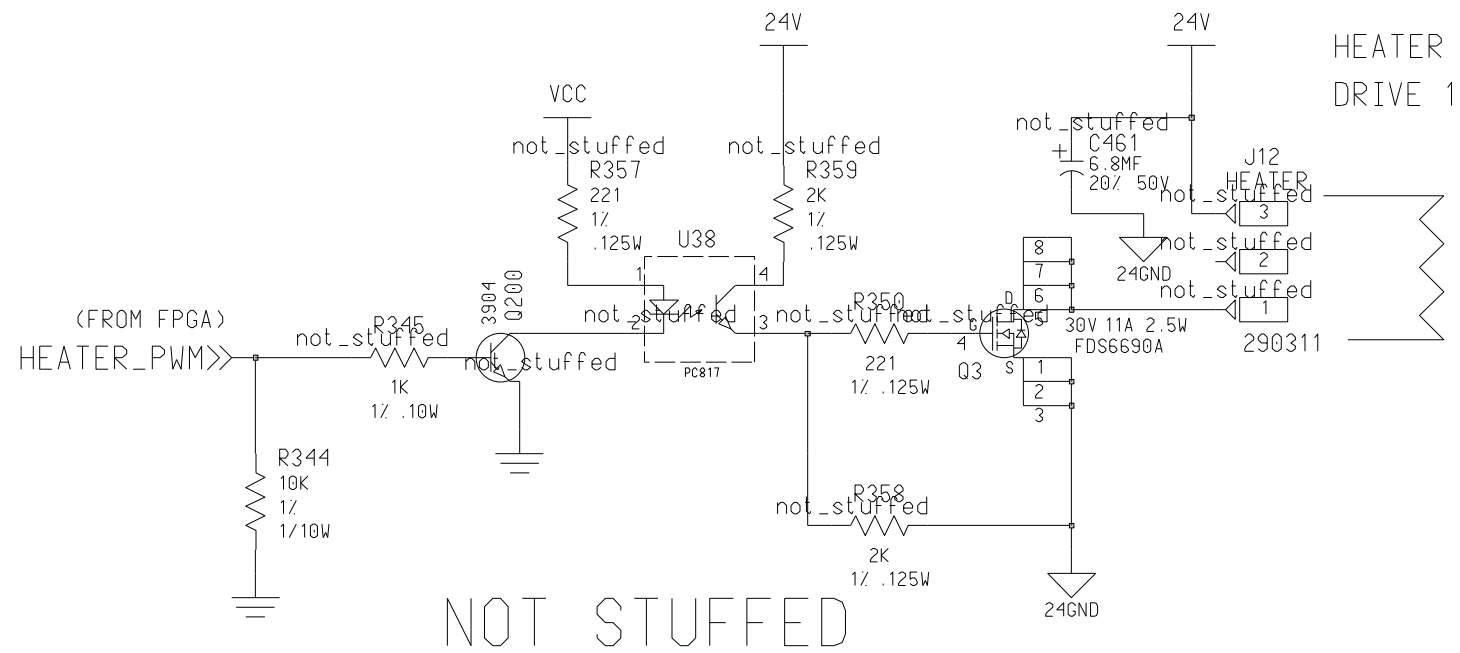


LOW VOLTAGE POWER SUPPLYS

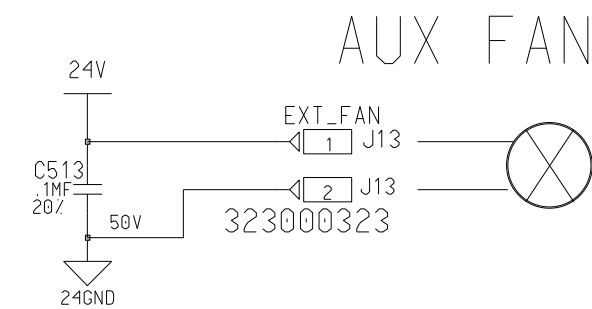
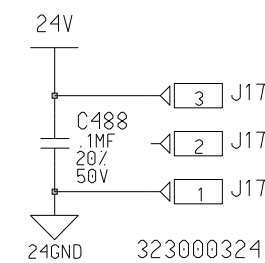
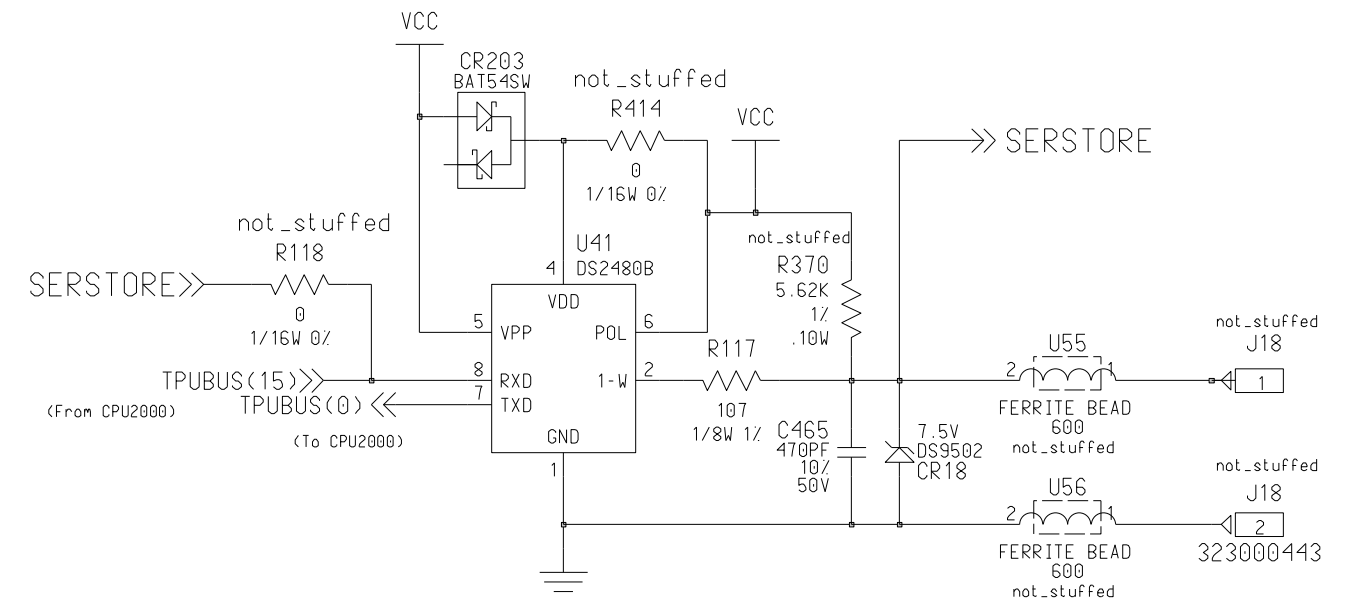
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PATHNAME \$COMPLETE/210000162.cccc_2475_Personality.CONT/				MENTOR DESIGN ARCHITECT		Sheet 2 of 21

WATERS
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24V PWM DRIVES



1-WIRE CA EEPROM & IBUTTONS

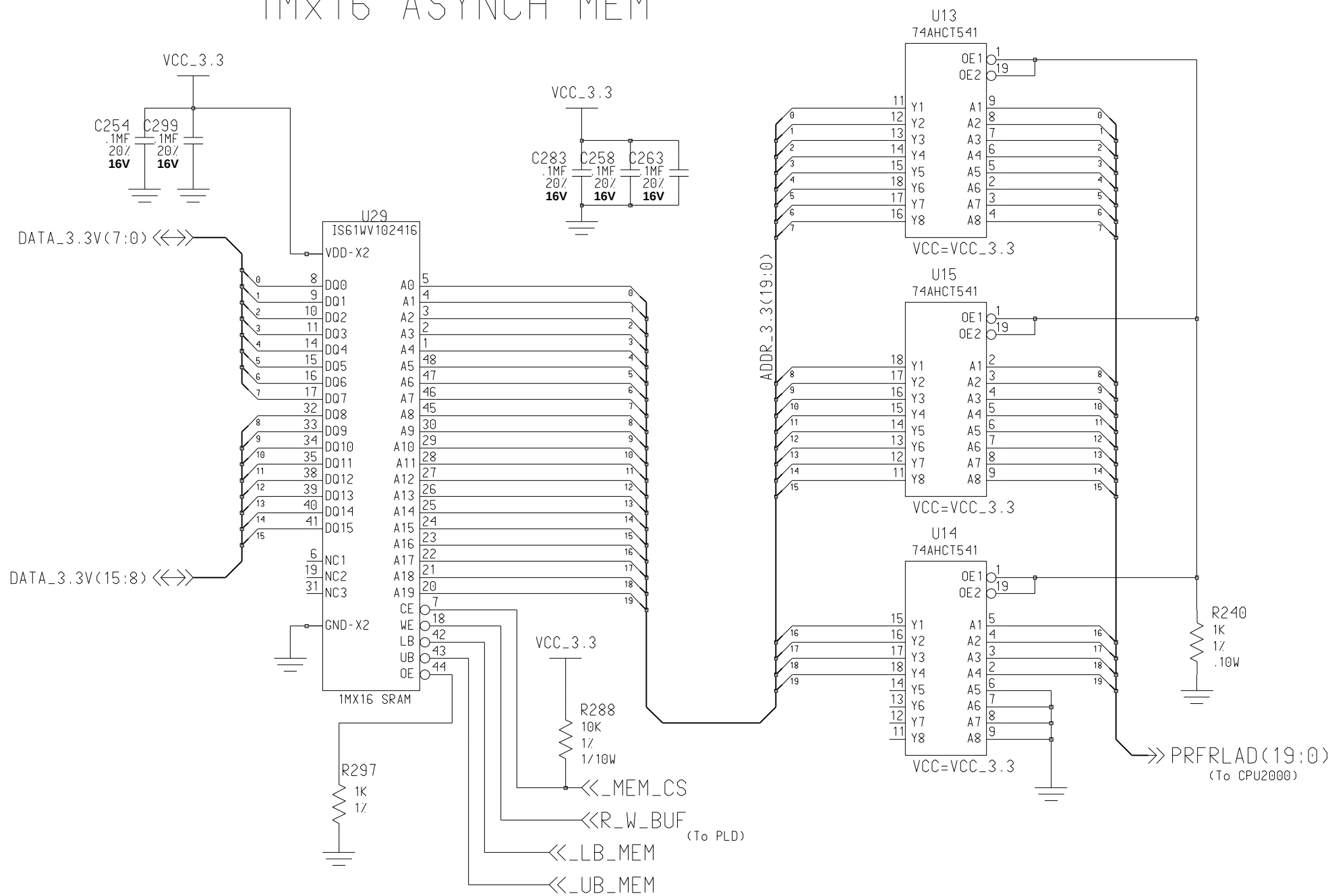


WATERS

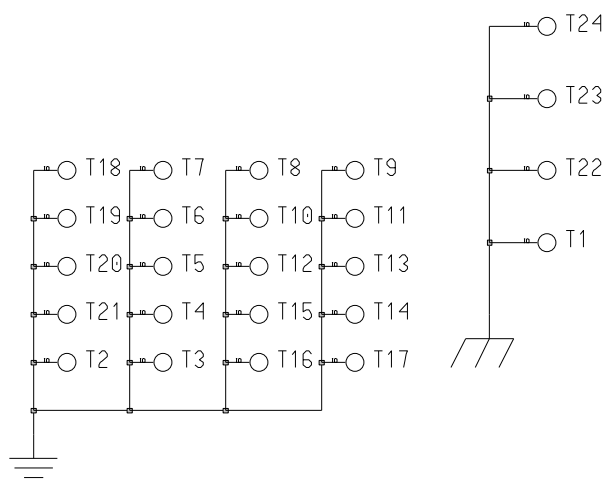
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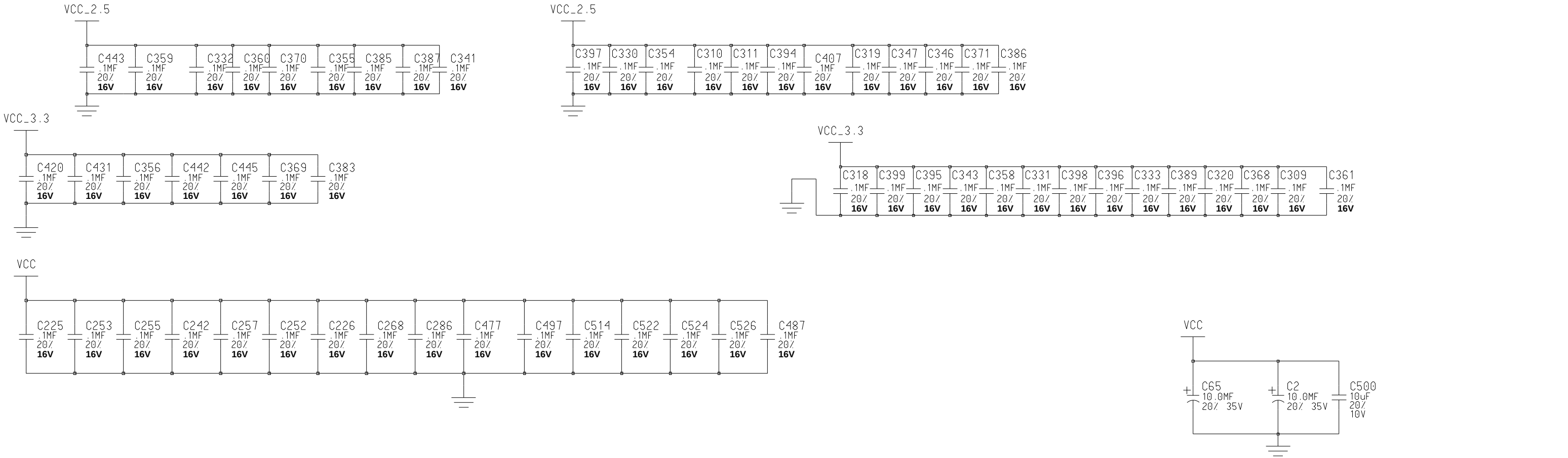
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PATHNAME \$ACTIVE/210000292_feef_2998_Classic_Pers-Br			MENTOR DESIGN ARCHITECT	Sheet 20 of 22	

1Mx16 ASYNCH MEM

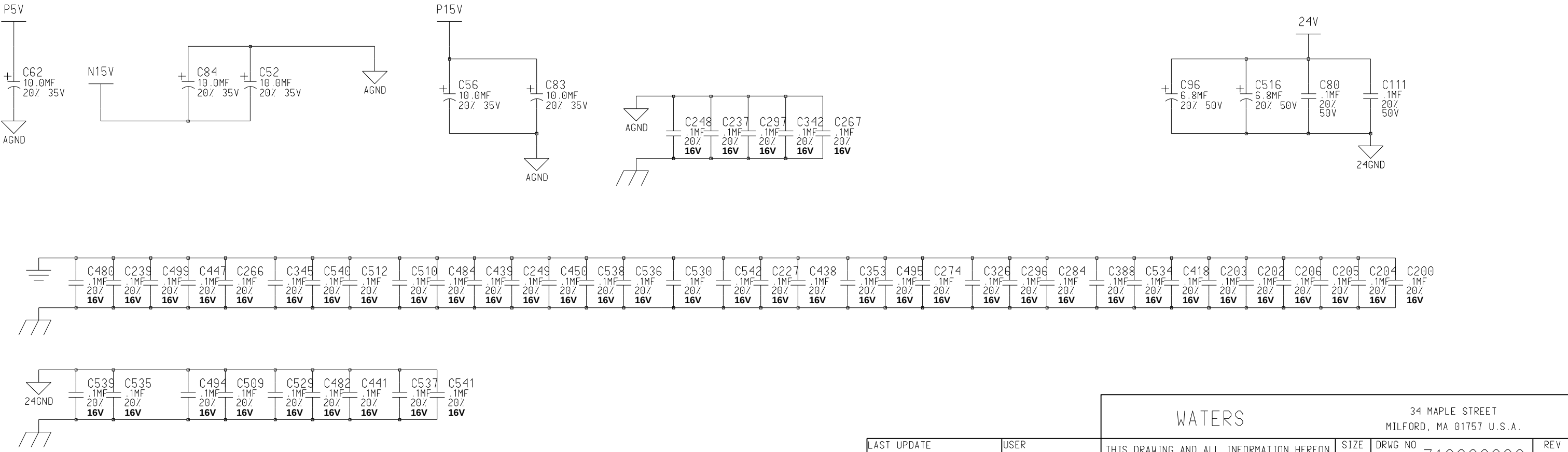


Memory is setup in this hardware config as 500Kx16.



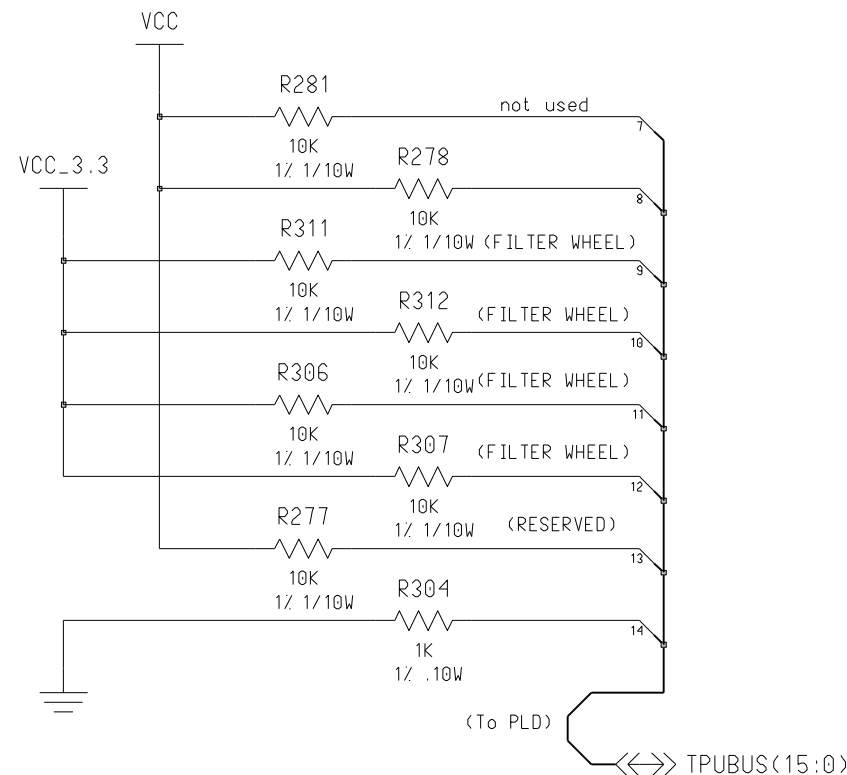


De-Coupling Capacitors

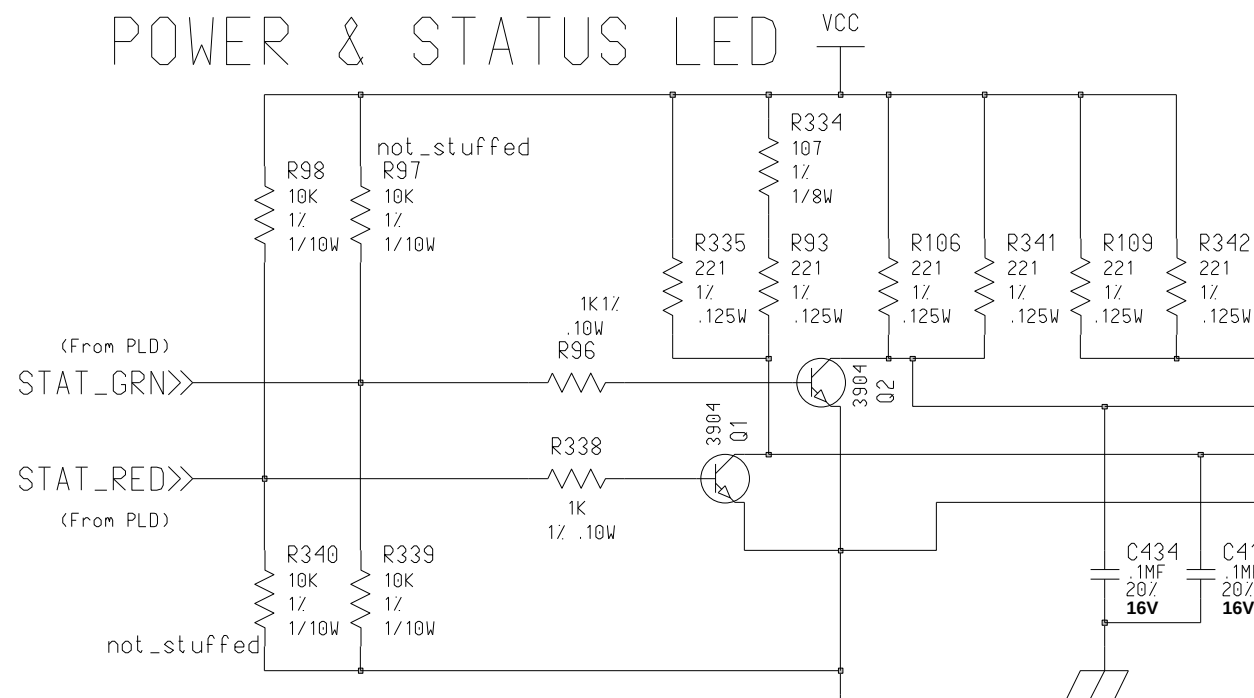


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TPUBUS CHANNELS TO FPGA

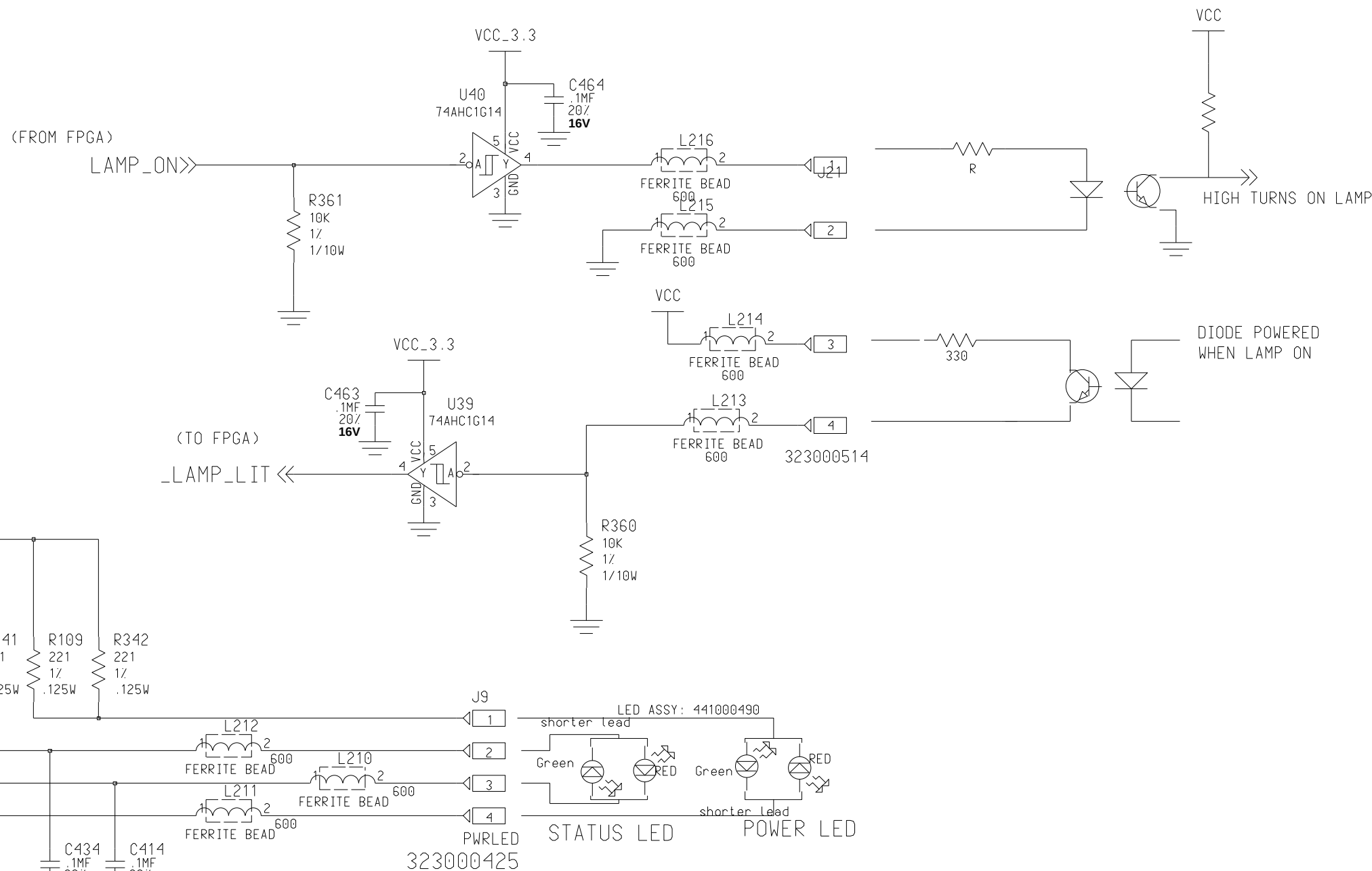


POWER & STATUS LED



COLOR	STAT_RED	STAT_GRN
Off	0	0
Green	0	1
RED	1	0
Not allowed	1	1

HB LAMP POWER SUPPLY



WATERS

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6/11/1999 9:29

USER
goness

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SIZE
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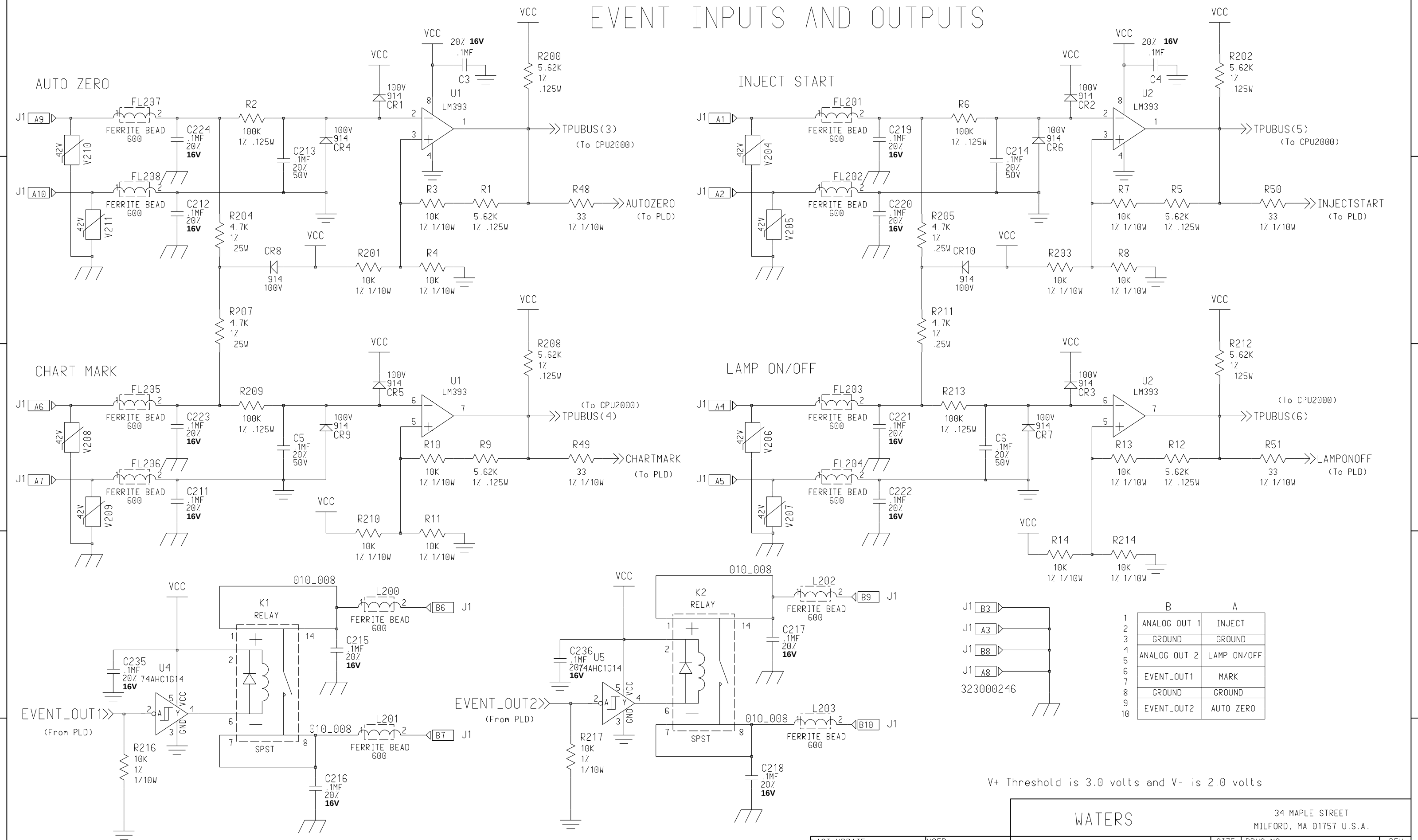
DRWG NO
710000292

REV
F

MENTOR DESIGN ARCHITECT

Sheet 3 of 21

EVENT INPUTS AND OUTPUTS



	B	A
1	ANALOG OUT 1	INJECT
2	GROUND	GROUND
3	ANALOG OUT 2	LAMP ON/OFF
4	EVENT_OUT1	MARK
5	GROUND	GROUND
6	EVENT_OUT2	AUTO ZERO
7		
8		
9		
10		

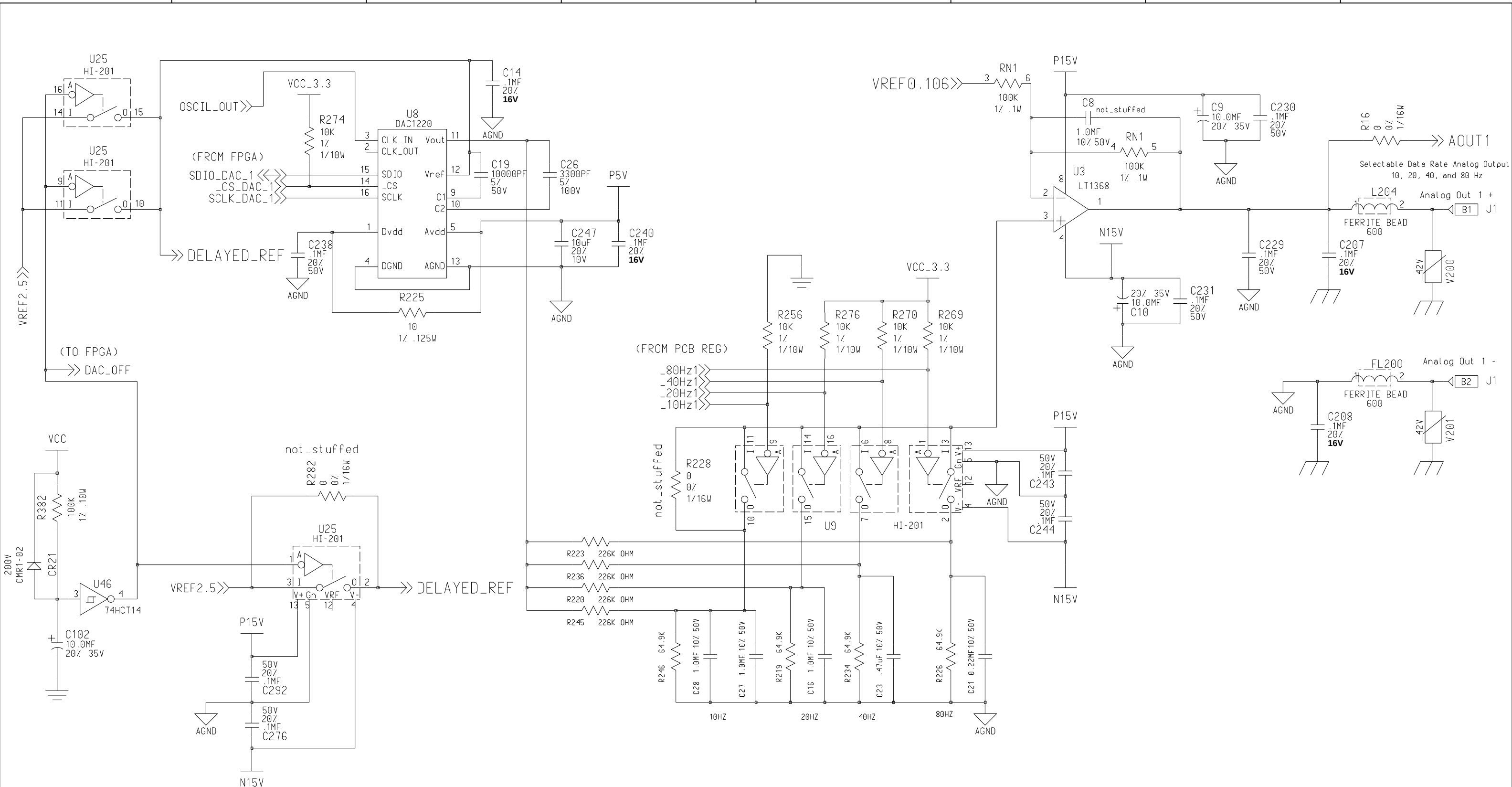
V+ Threshold is 3.0 volts and V- is 2.0 volts

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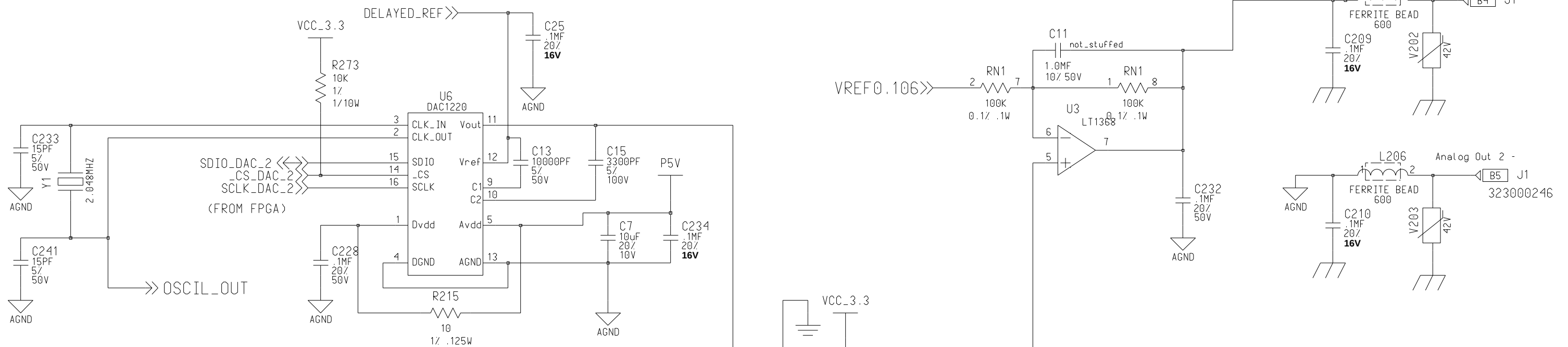
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PATHNAME S:\COMPLETE\210000162-cccc-2475_Personality-CONT			MENTOR DESIGN ARCHITECT Sheet 4 of 21		

323000246

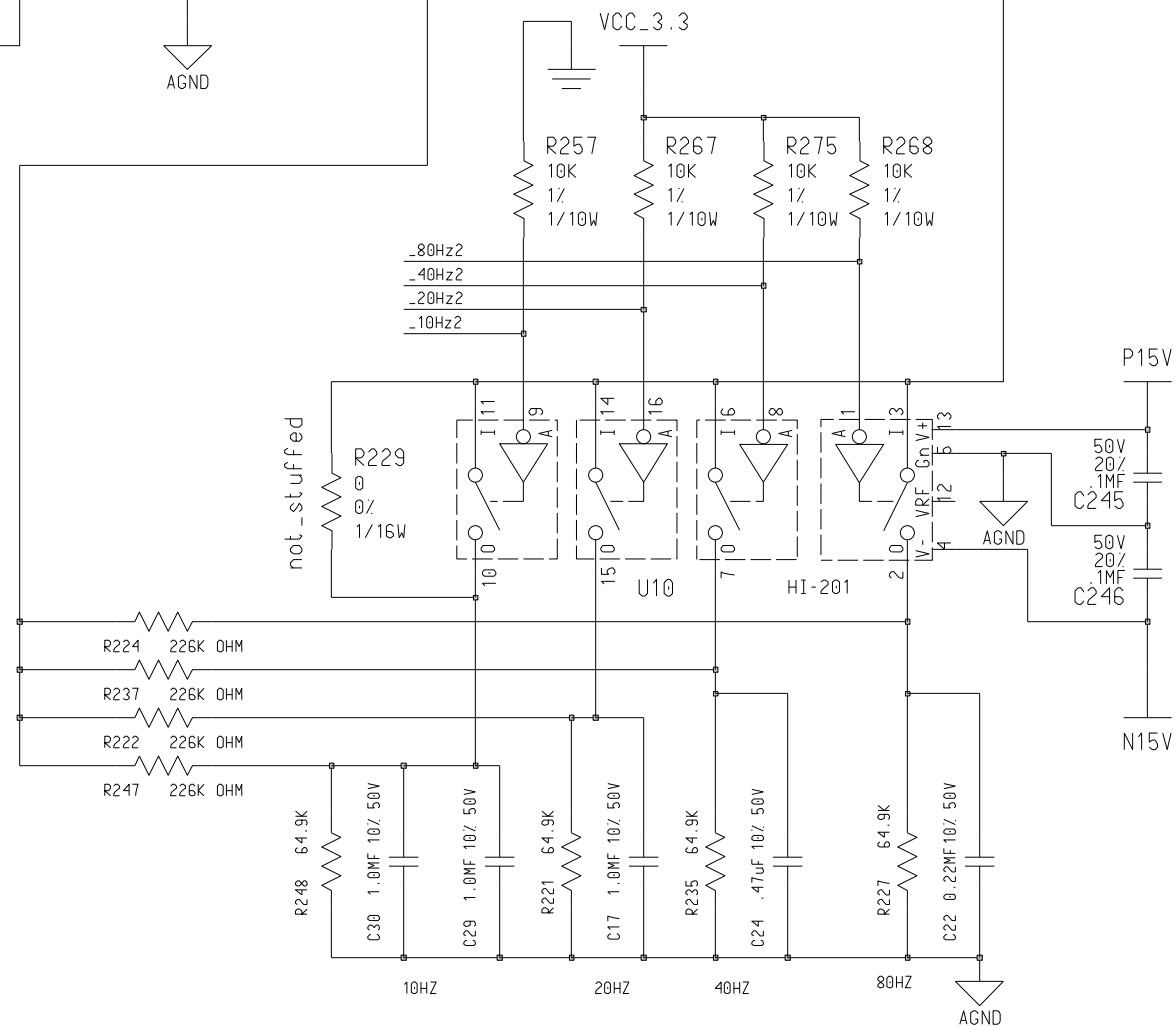
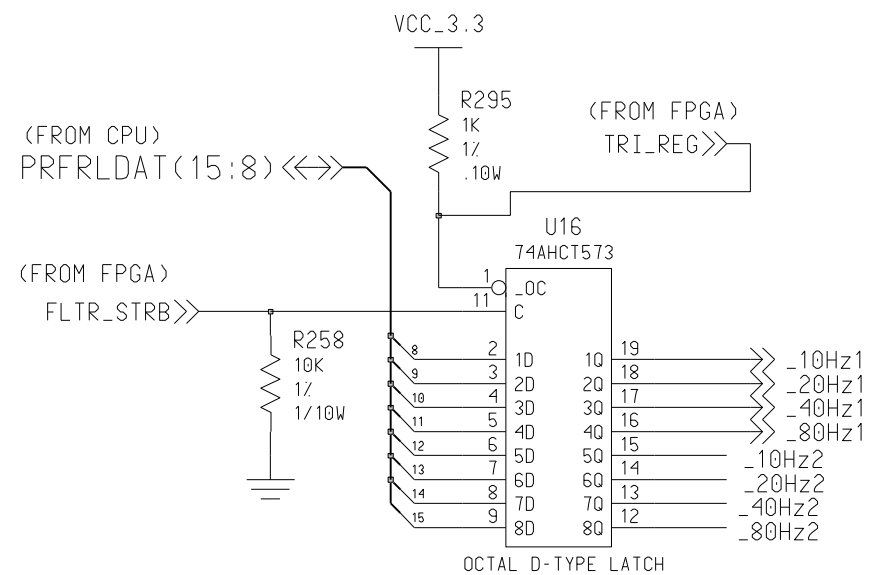


Analog Output CH1 -0.1 to 2.1 Volts

Analog Output CH2 -0.1 to 2.1 Volts



WRITE REGISTER



WATERS

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3/5/2007 10:18

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lavertyd

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D

DRWG NO
710000292

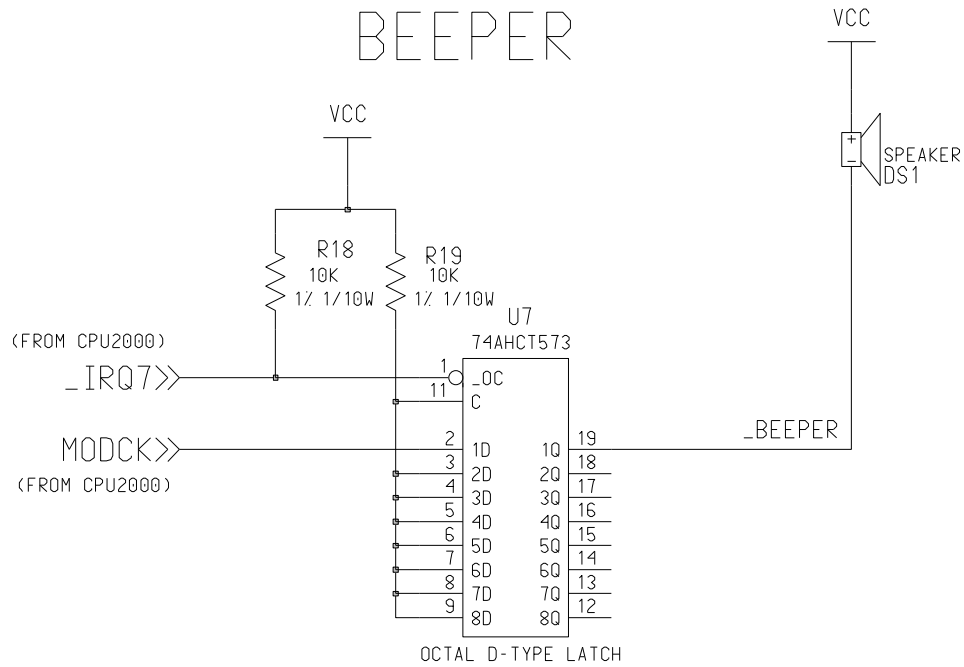
REV
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PATHNAME
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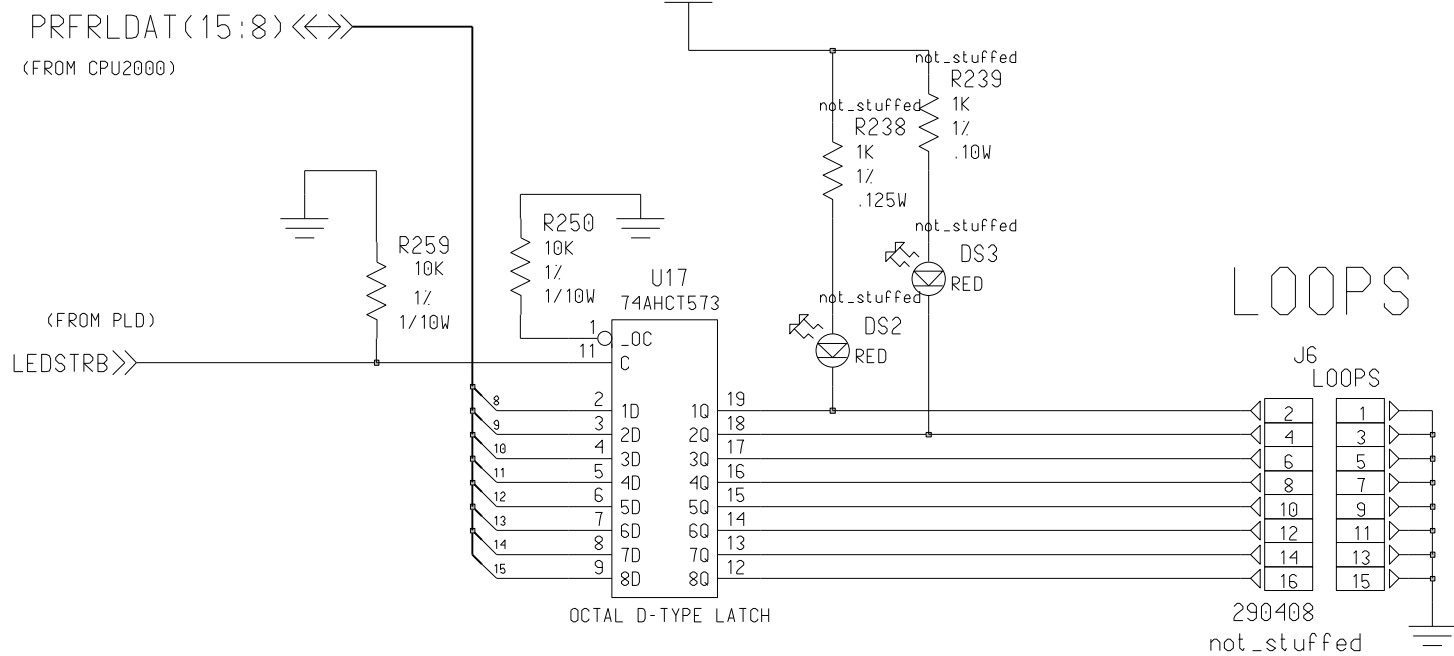
MENTOR DESIGN ARCHITECT

Sheet 6 of 22

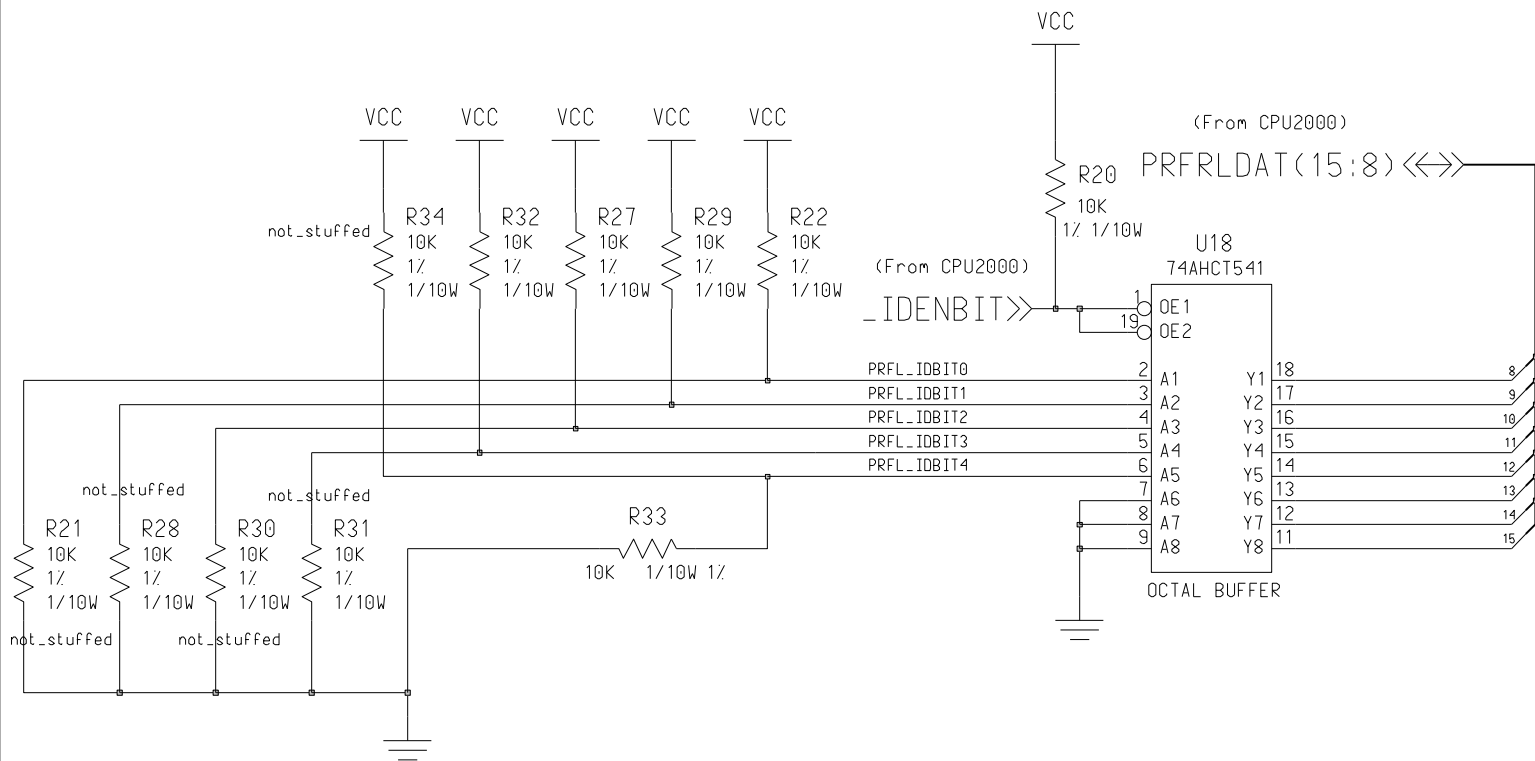
BEEPER



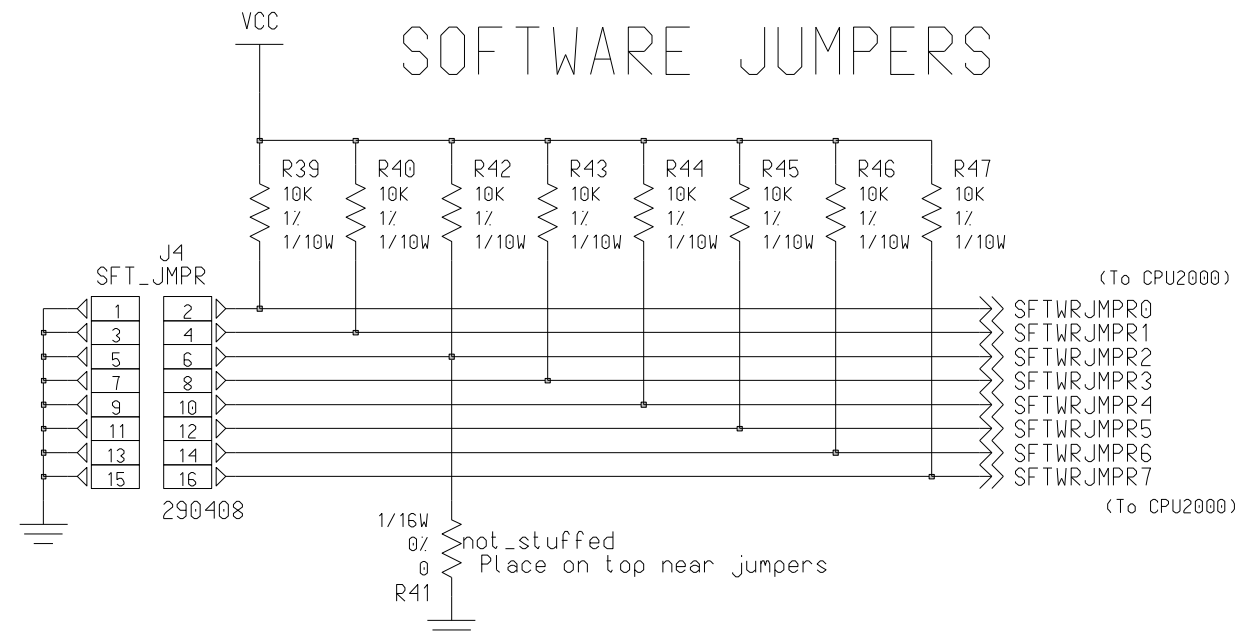
DATA BUS LEDS



PRODUCT ID 0X0F



SOFTWARE JUMPERS

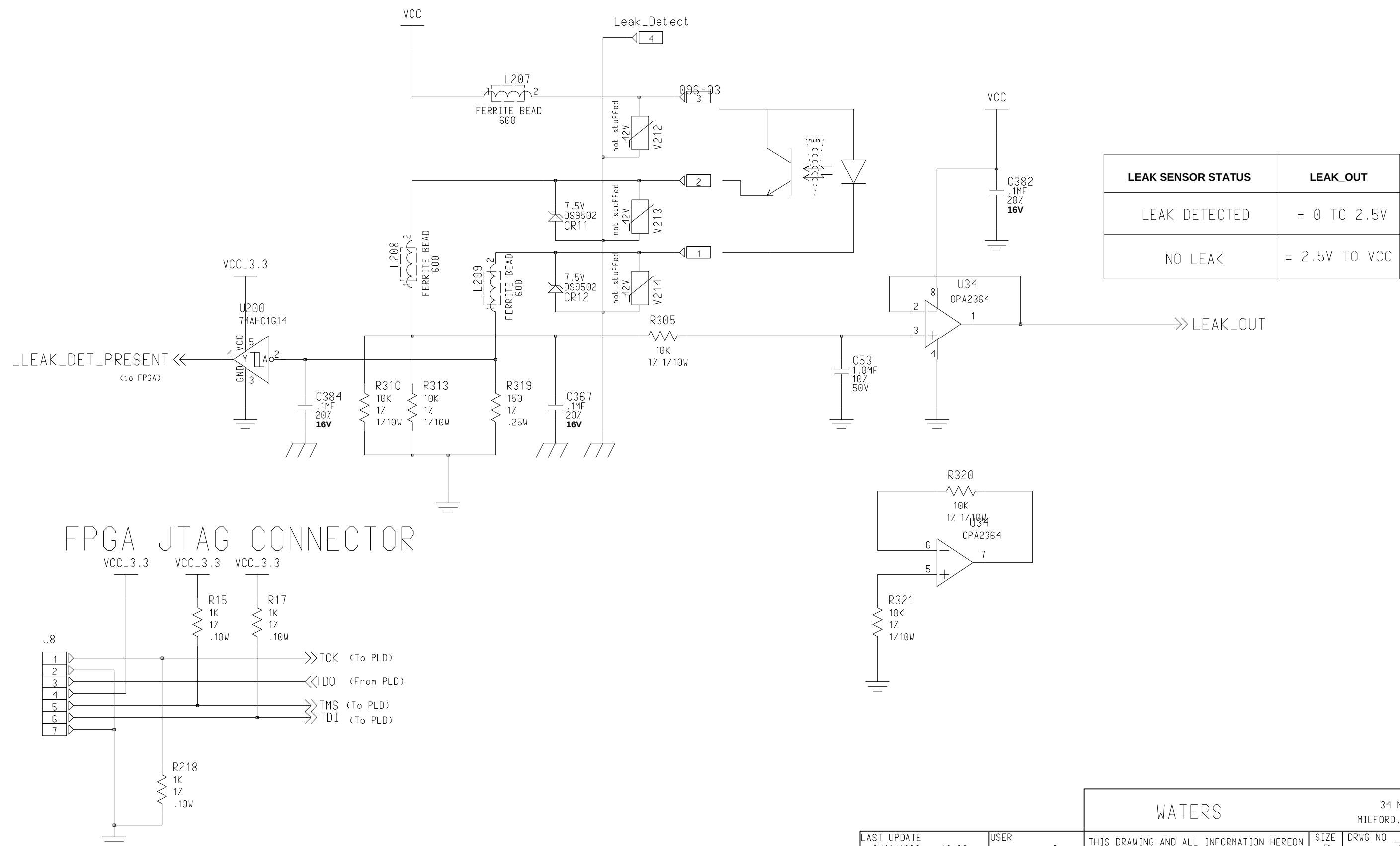


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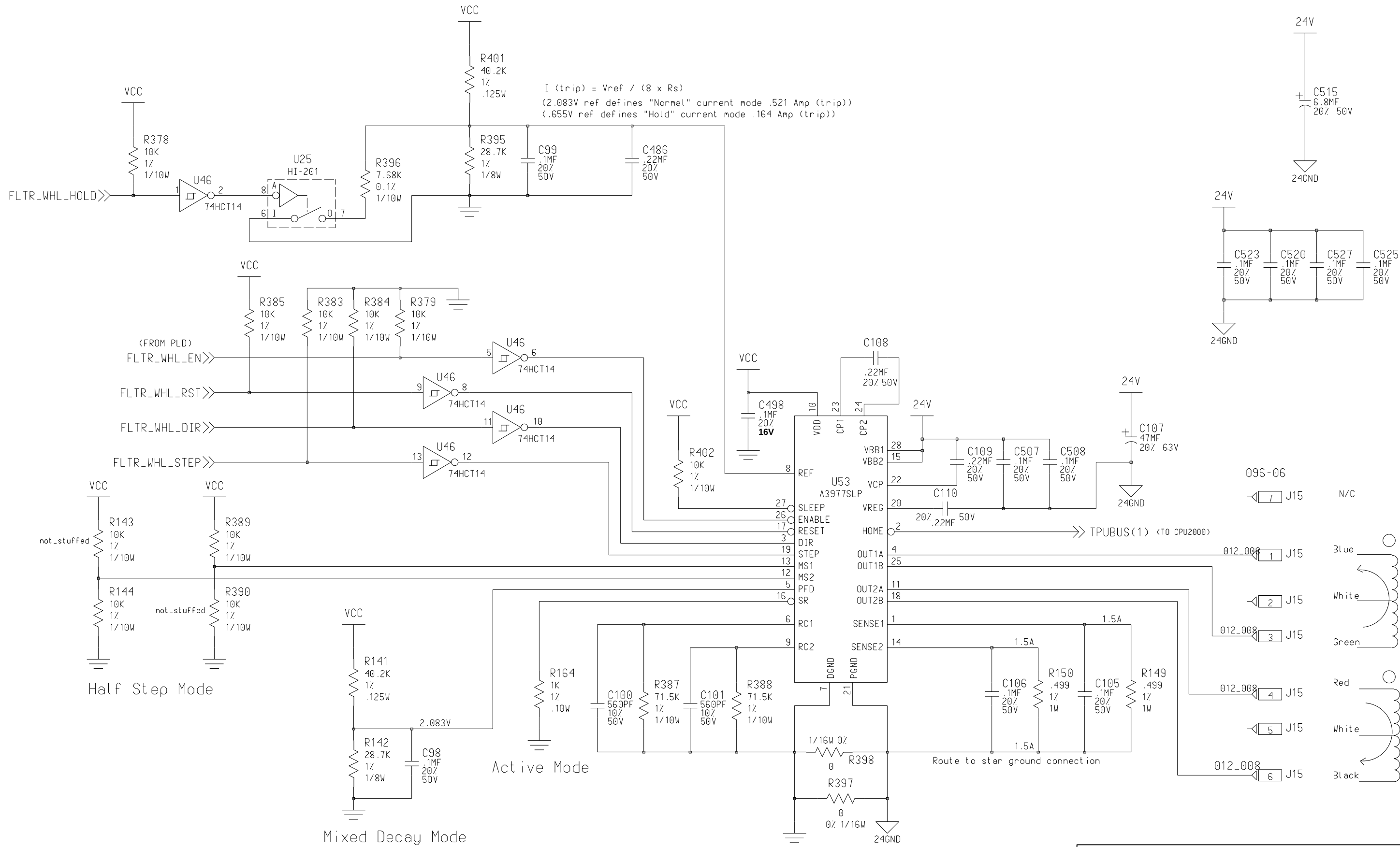
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PATHNAME \$COMPLETE/210000162-cccc-2475_Personality-CONT			MENTOR DESIGN ARCHITECT Sheet 7 of 21		

Leak Detector Circuit



LEAK SENSOR STATUS	LEAK_OUT
LEAK DETECTED	= 0 TO 2.5V
NO LEAK	= 2.5V TO VCC

FILTER WHEEL DRIVER



WATERS

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