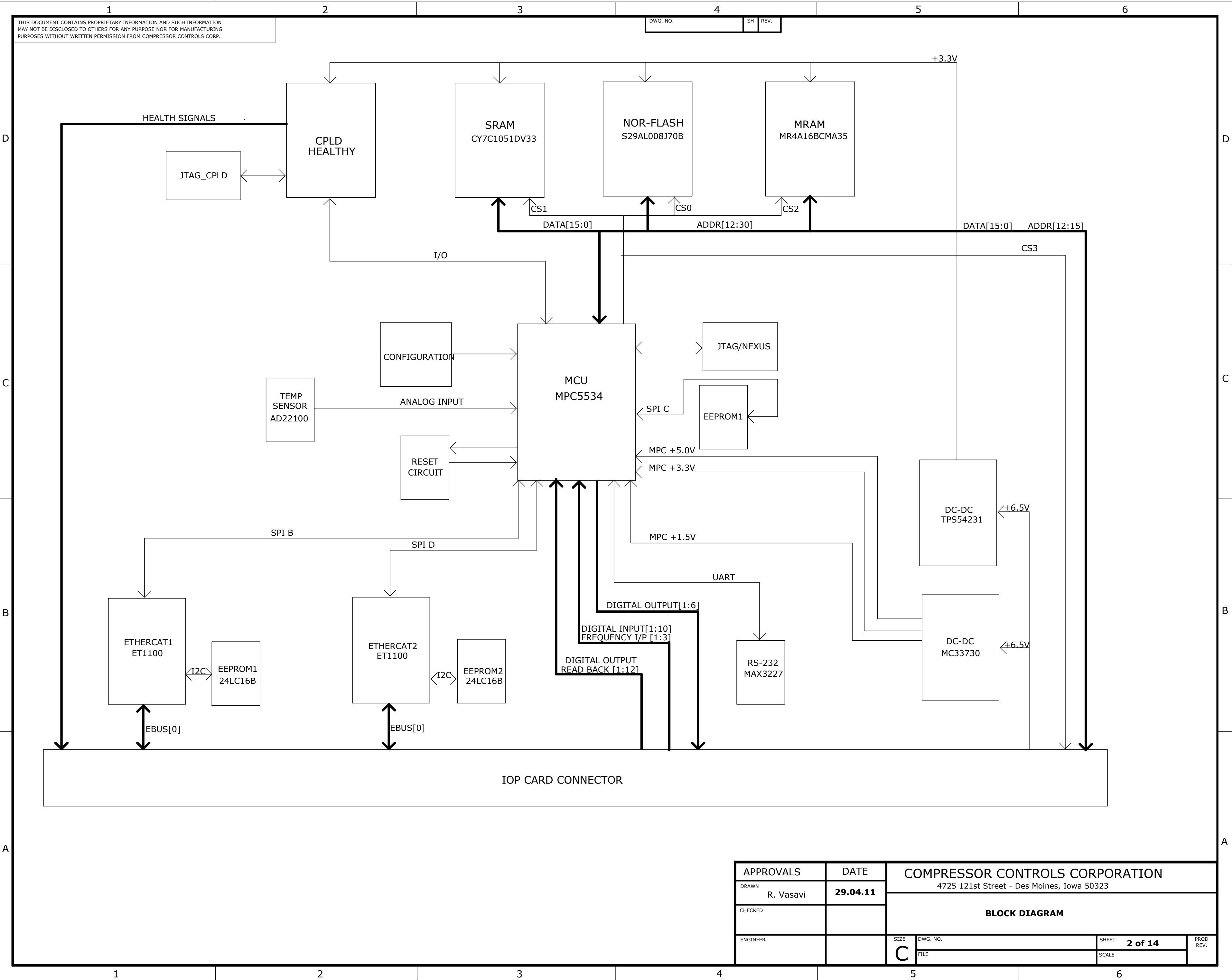
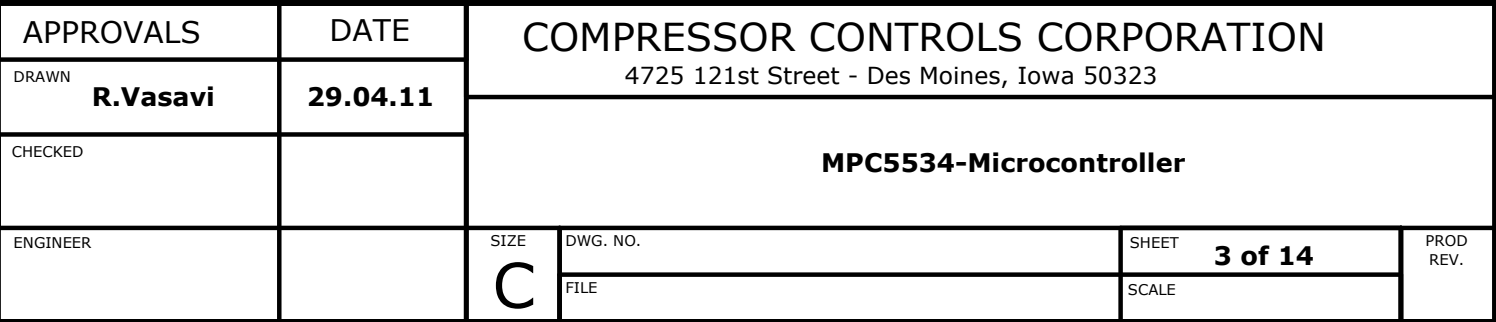


1	2	3	4		5	6																																			
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<div>NEXT GENERATION PLATFORM</div> <div>MPC5534 MICROCONTROLLER BOARD</div>																																									
REVISION HISTORY																																									
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			FILE	SCALE																																					
1	2	3	4		5	6																																			

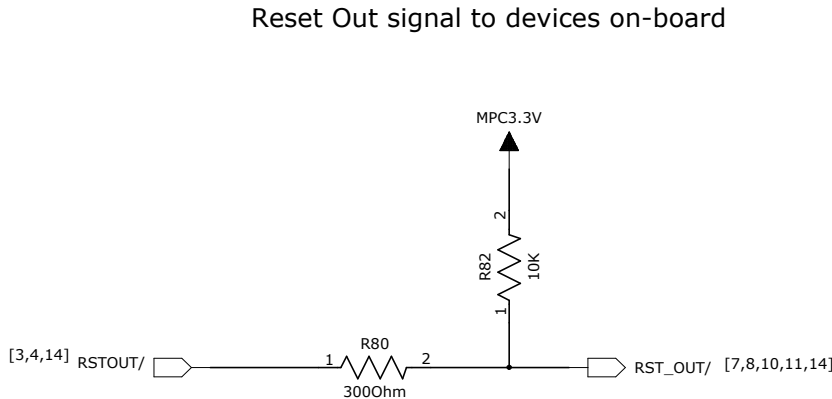
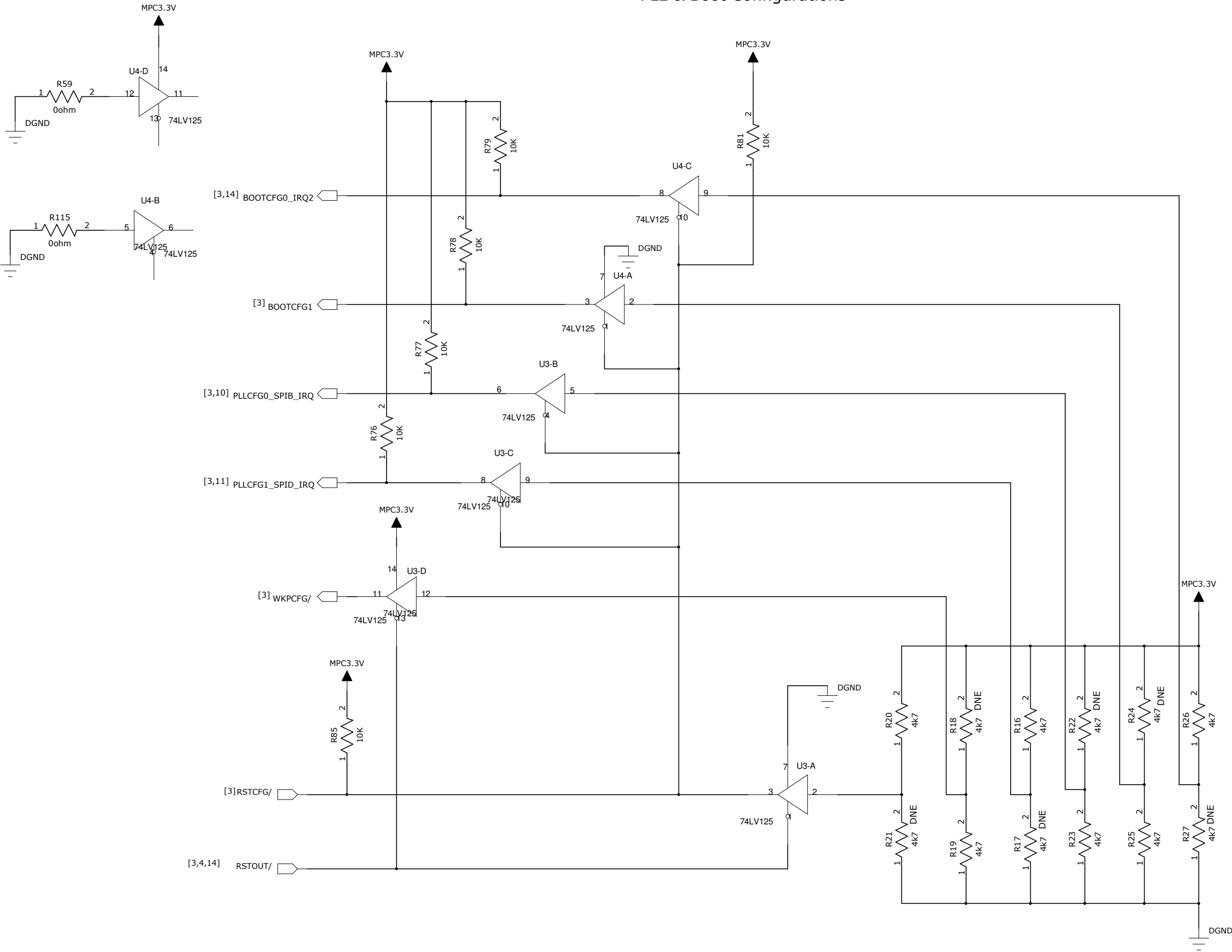




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DWG. NO. SH REV.

PLL & Boot Configurations

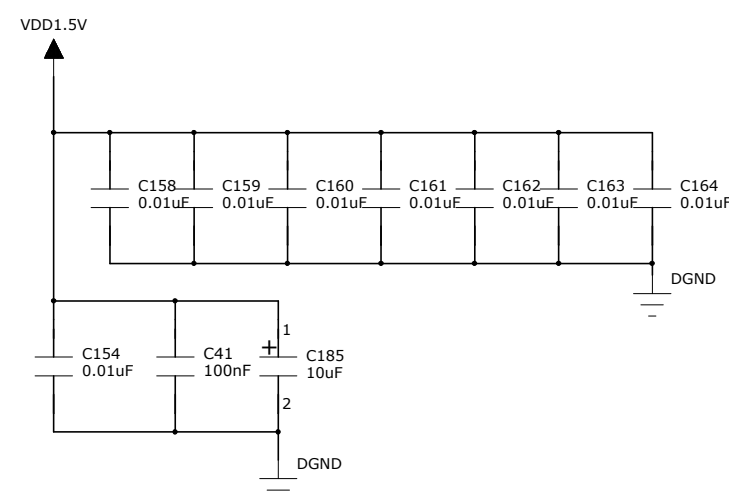
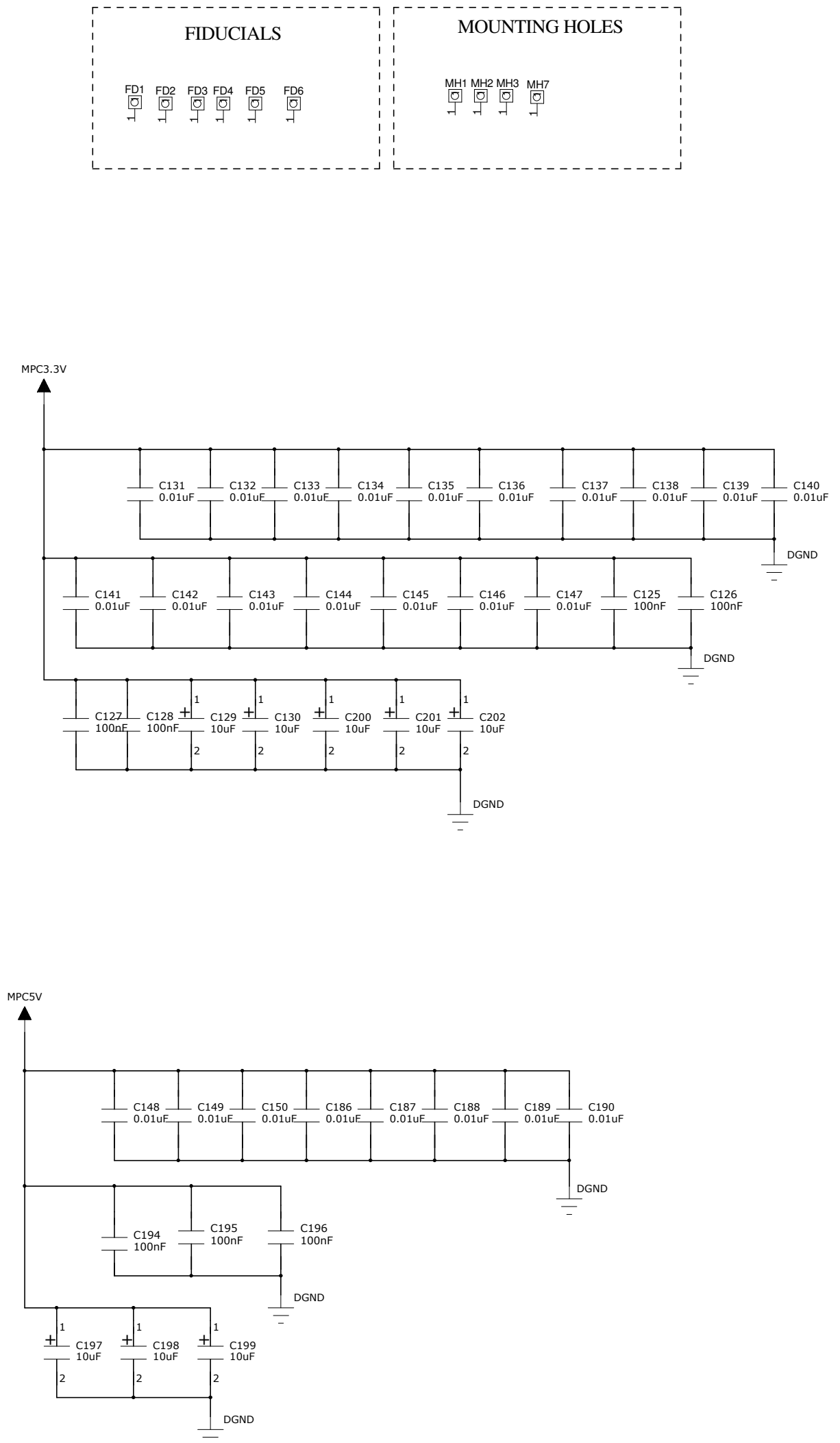


Configuration Table

RSTCFG	PLLCFG[1:0]	BOOTCFG[1:0]	Description
Load R20 DNE R21	Load R16,R23 DNE R17,R22		Clock Mode-Crystal Reference
Load R21 DNE R20	Load R17,R22 DNE R16,R23		Clock Mode-External Oscillator
Load R21 DNE R20		Load R24,R27 DNE R25,R26	Boot from external FLASH - CS0/
Load R20 DNE R21		Load R25,R26 DNE R24, R27	Boot from internal FLASH

Configurations,  
PLLCFG[1:0]= 10, crystal reference is used  
BOOTCFG[1:0]=01, internal boot option is selected  
RSTCFG=1, Boot from internal flash and clock source is crystal  
WKPCFG=0, Weak pull down applied to eTPU and eMIOS pins at reset

APPROVALS	DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>	<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED		<b>MPC5534 Configurations</b>			
ENGINEER		SIZE <b>C</b>	DWG. NO.	SHEET <b>4 of 14</b>	PROD REV.
		FILE		SCALE	



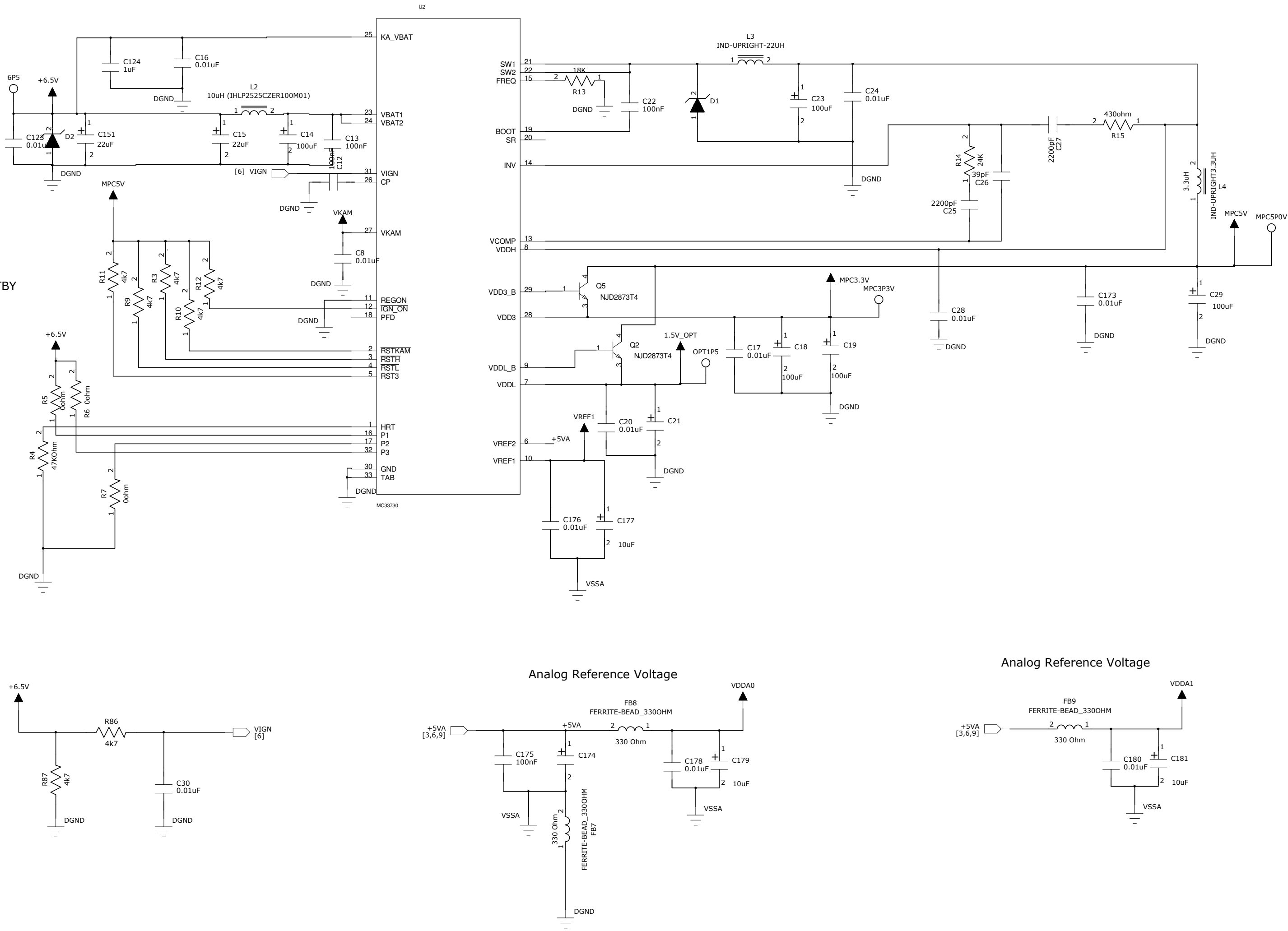
APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>		<b>29.04.11</b>		4725 121st Street - Des Moines, Iowa 50323			
CHECKED				<b>MPC5534-Power</b>			
ENGINEER				SIZE <b>C</b>	DWG. NO.	SHEET <b>5 of 14</b>	PROD REV.
				FILE		SCALE	

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DWG. NO. SH REV.

MC33730 - Switching regulator with LDO output- 3.3V, 1.5V

For J2  
Short 1 & 2 for VSTBY  
Short 2 & 3 for disable VSTBY

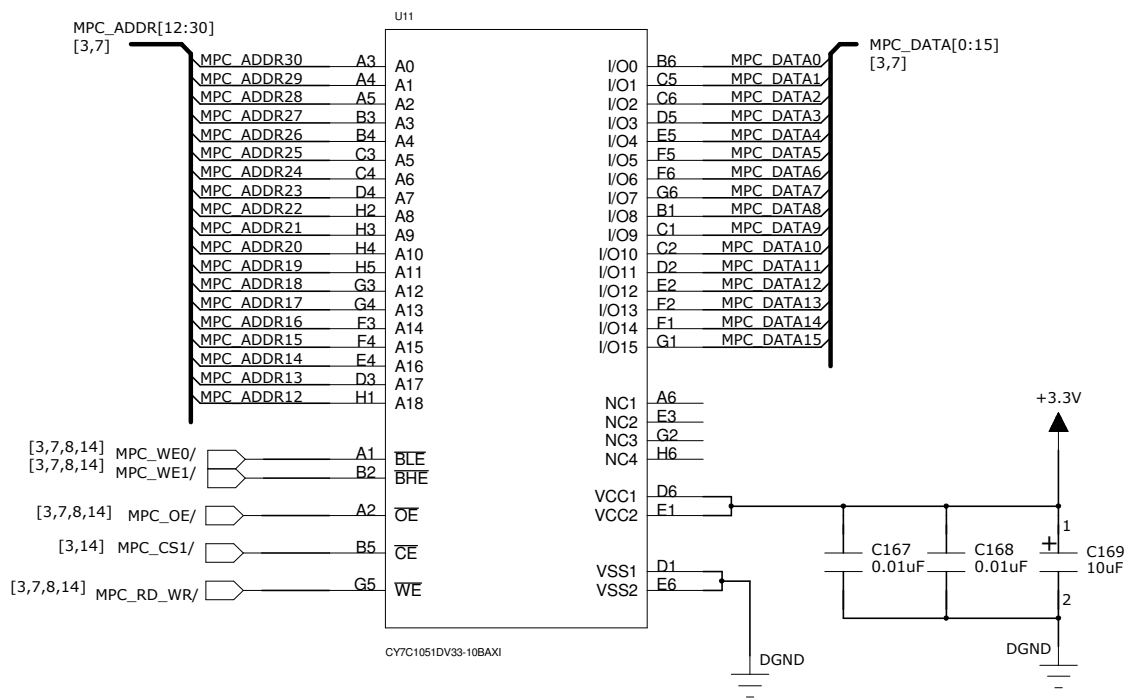


APPROVALS		DATE	COMPRESSOR CONTROLS CORPORATION		
DRAWN		R.Vasavi	29.04.11		
CHECKED					
ENGINEER					
SIZE		C	DWG. NO.		SHEET 6 of 14
			FILE		SCALE
					PROD REV.

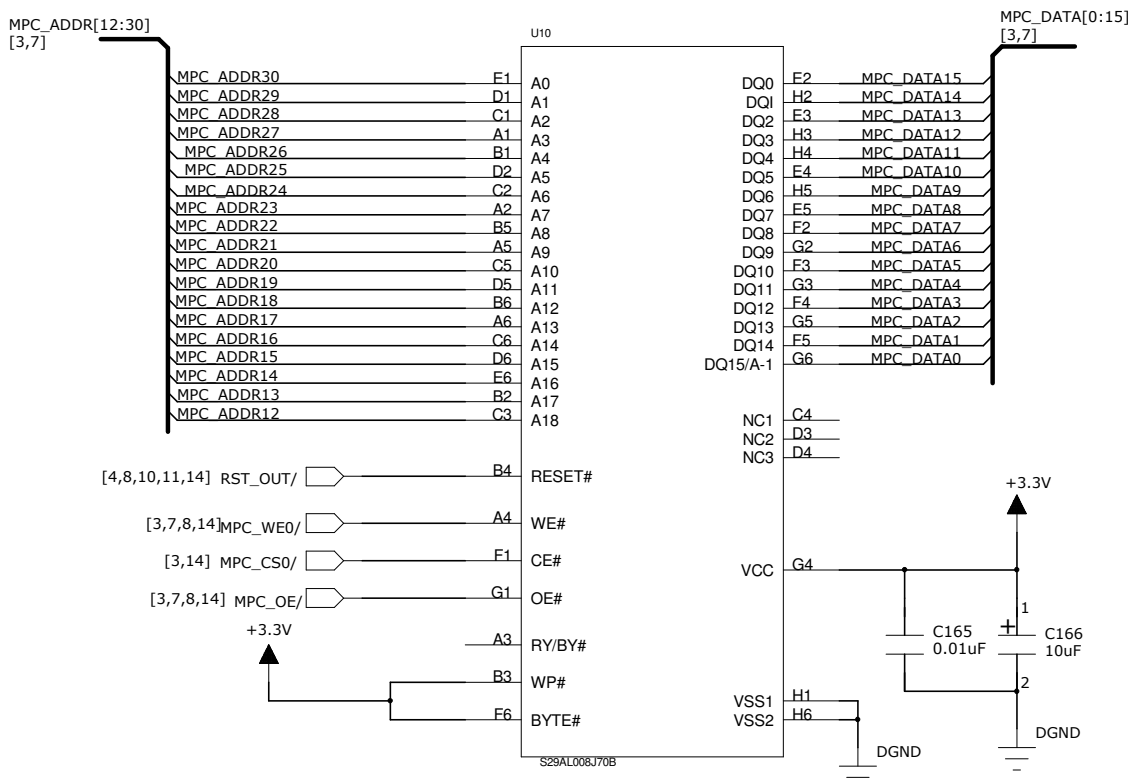
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DWG. NO. SH REV.

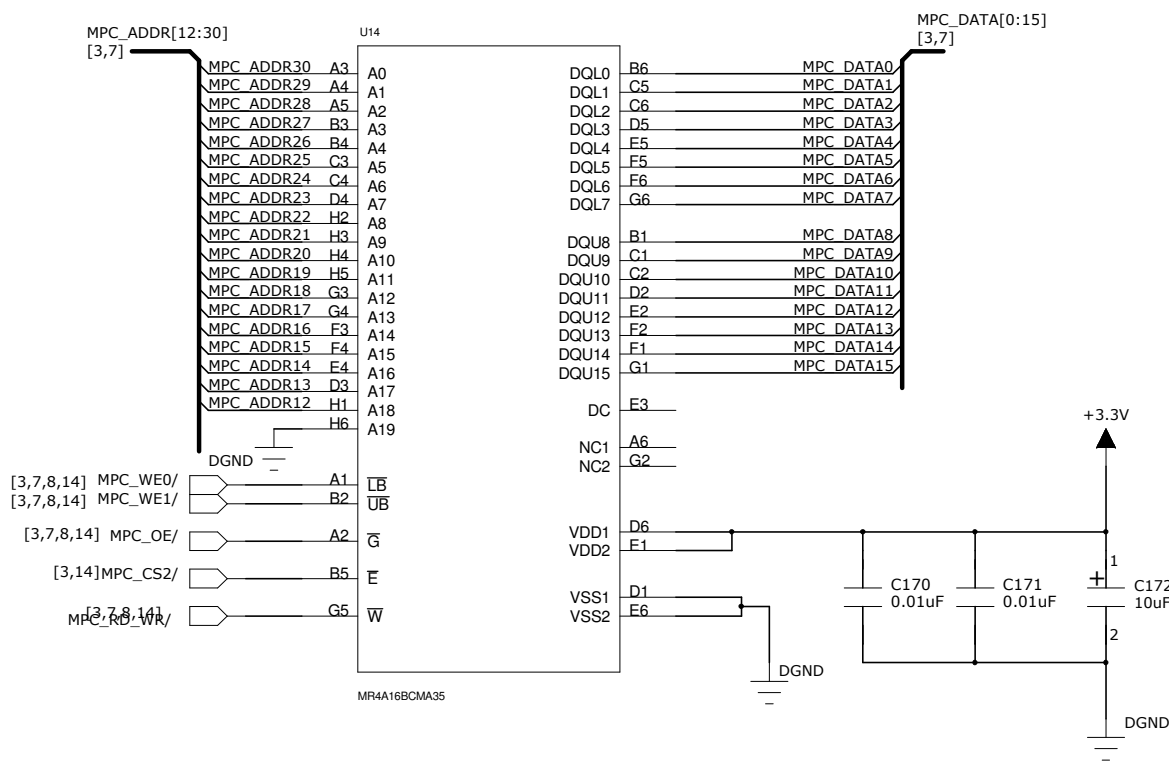
## SRAM



## NOR-FLASH

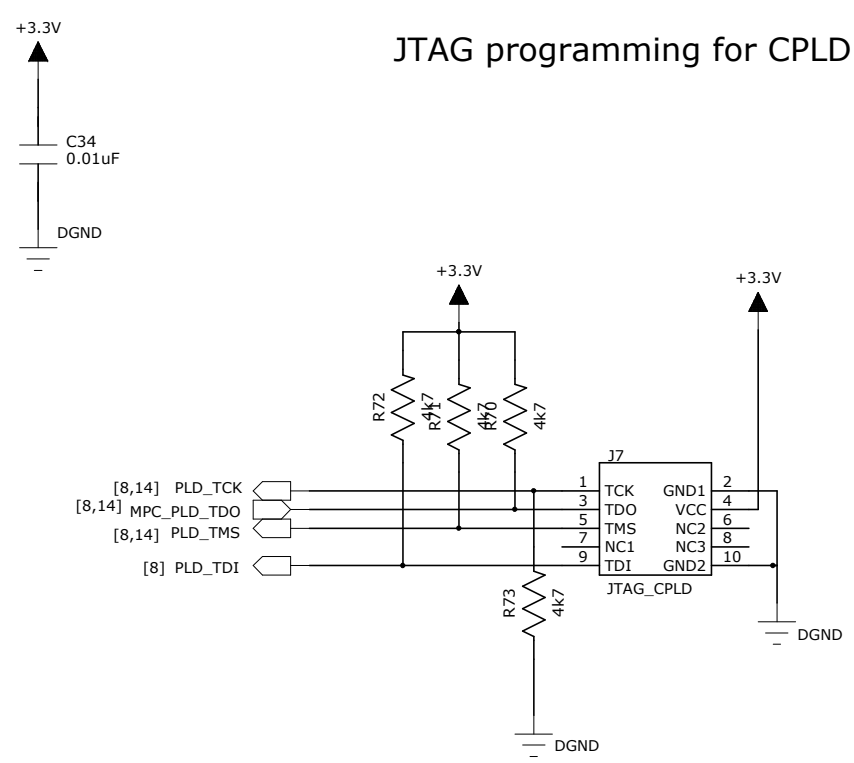


## MRAM



APPROVALS		DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN		<b>R.Vasavi</b>	<b>29.04.11</b>		4725 121st Street - Des Moines, Iowa 50323	
CHECKED					<b>NOR-Flash, SRAM &amp; MRAM</b>	
ENGINEER			SIZE	DWG. NO.	SHEET	PROD
			C	FILE	<b>7 of 14</b>	REV.
					SCALE	

## JTAG programming for CPLD

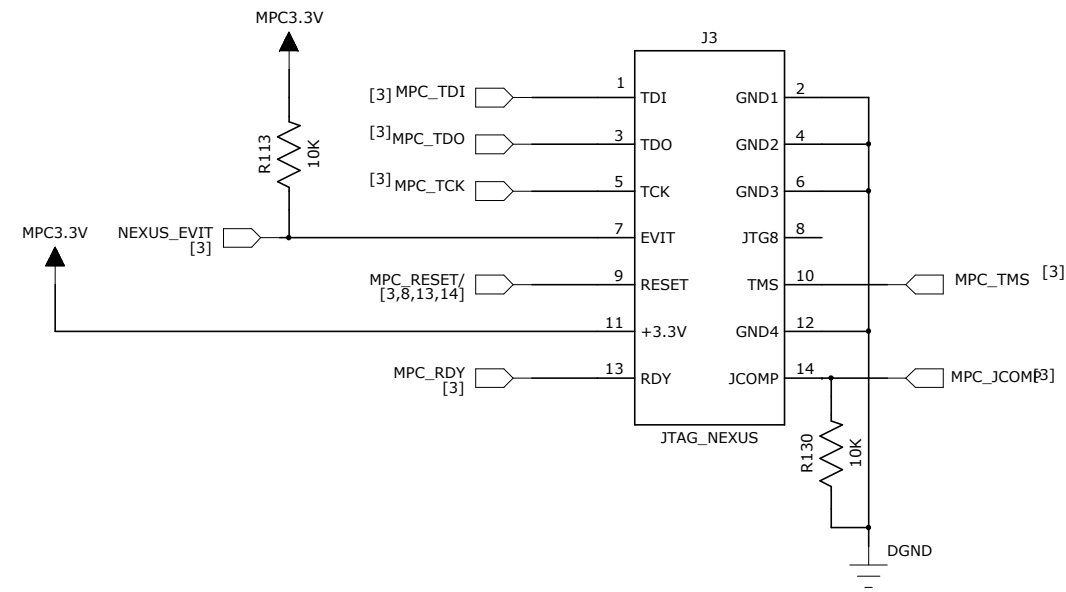


APPROVALS	DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>	<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED		HEALTH CPLD & EBI-BUFFERS			
ENGINEER		SIZE <b>C</b>	DWG. NO. FILE	SHEET <b>8 of 14</b>	PROD REV.

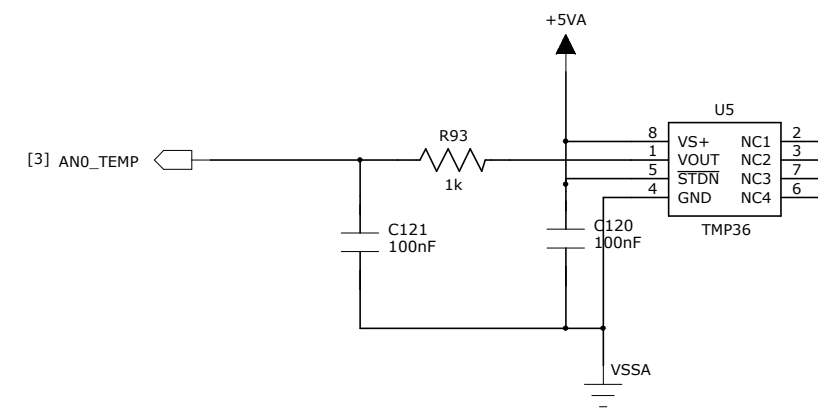


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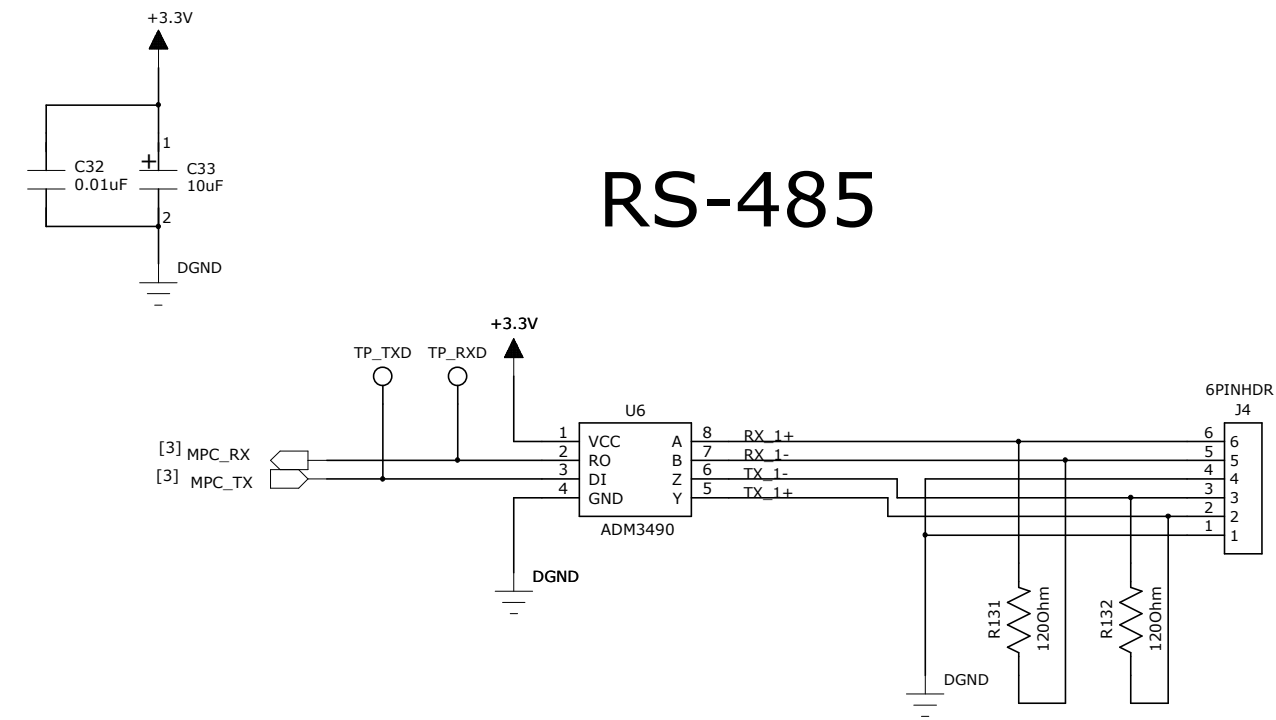
# JTAG/NEXUS



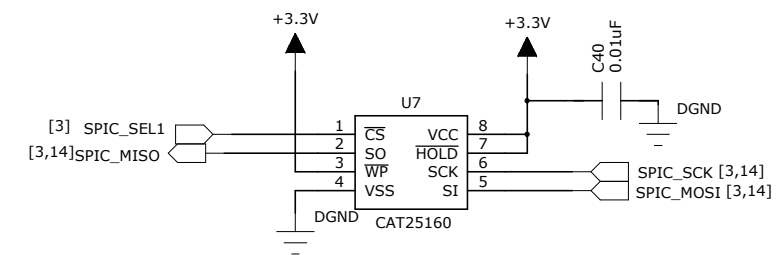
# Temperature Sensor



## RS-485

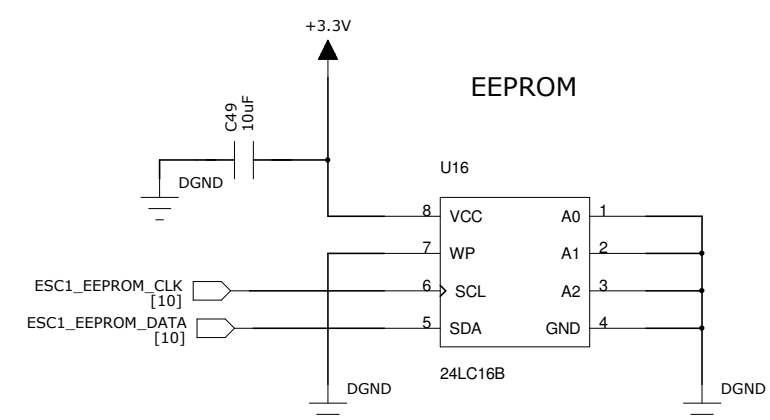
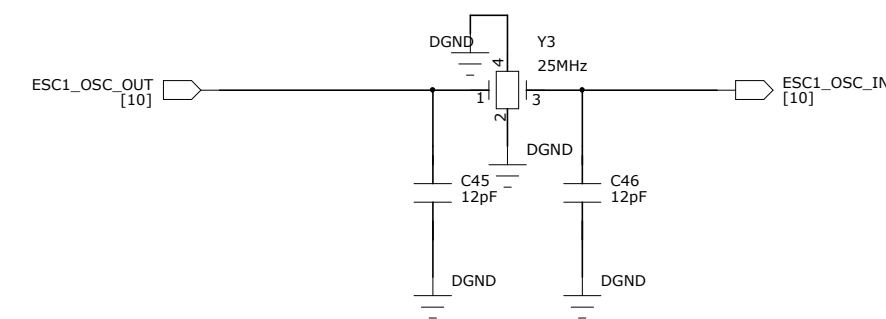
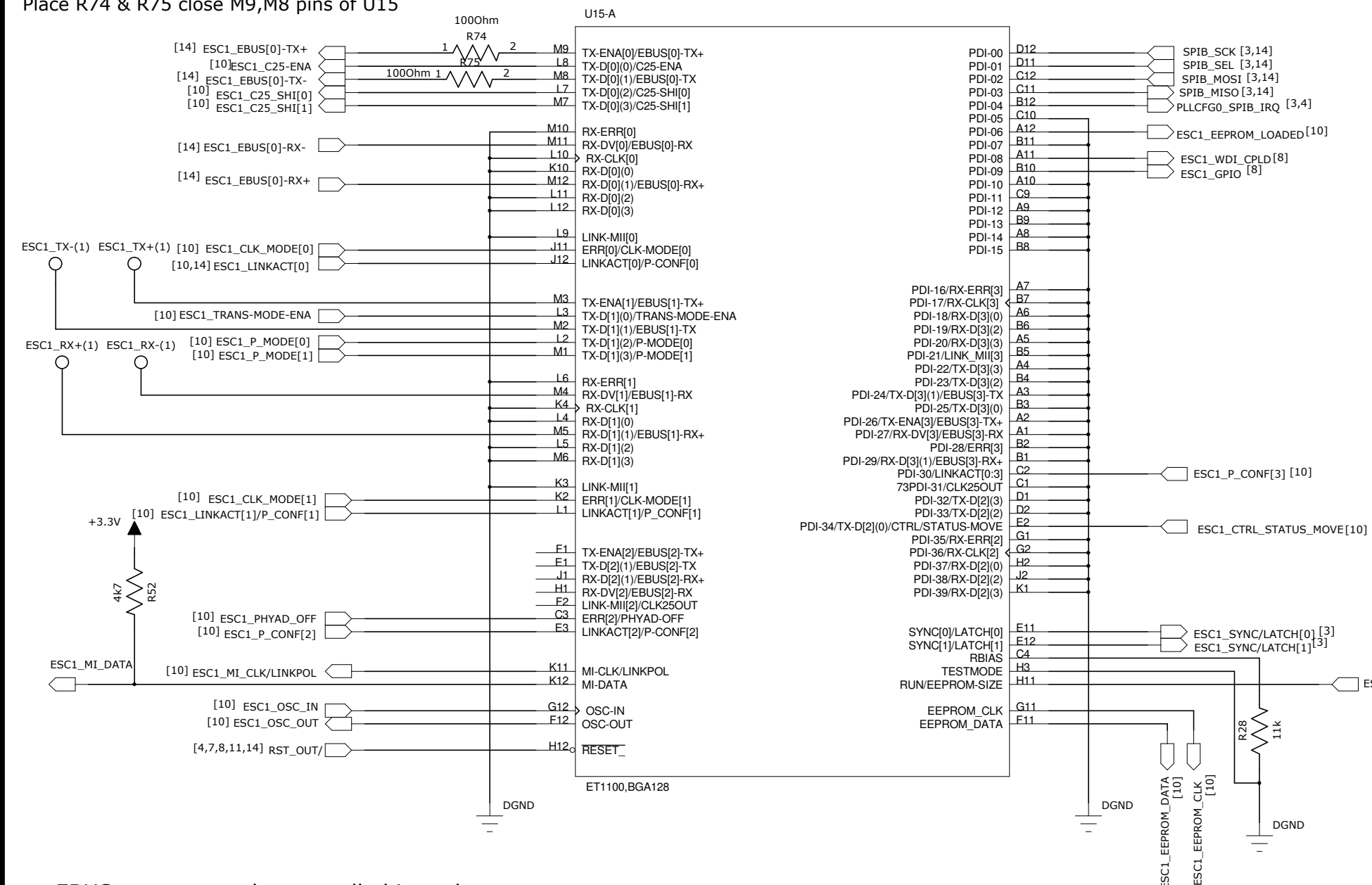


## SPI-EEPROM1



APPROVALS	DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>	<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED		JTAG/Nexus, RS-485, SPI-EEPROM, TEMP-SENSOR			
ENGINEER		SIZE <b>C</b>	DWG. NO.	SHEET <b>9 of 14</b>	PROD REV.
		FILE		SCALE	

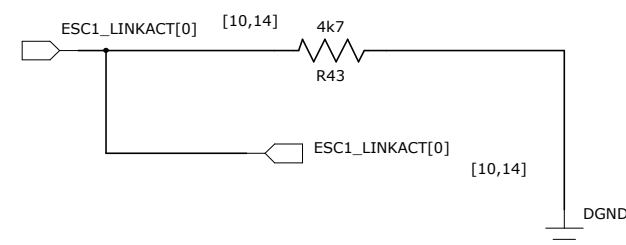
Place R74 & R75 close M9,M8 pins of U15



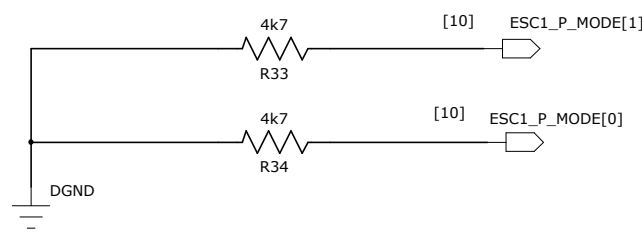
Keep I2C lines as short as possible

EBUS traces must be controlled impedance traces  
EBUS is strictly 100 ohm  
use thin traces for these signals

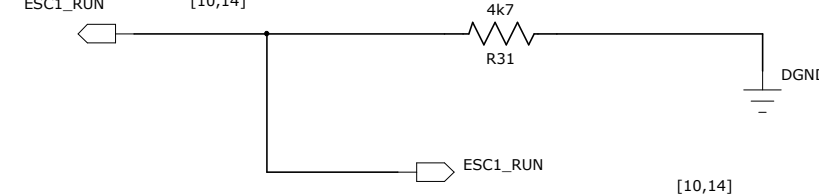
P\_CONF[0]= 9 (Port0 = EBUS)



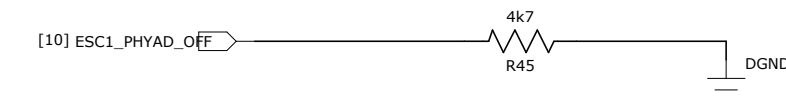
2 EtherCAT Ports enabled (P\_MODE[1:0] = 00)



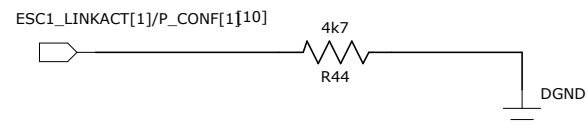
E<sup>2</sup>PPROM-Size = 0 (16 kBit)



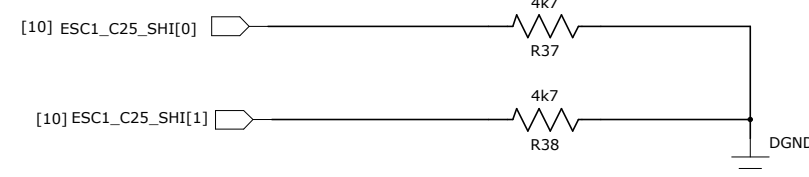
PHY offset address = 0 (unused)



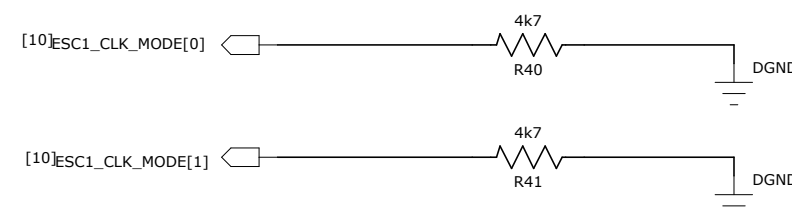
P\_CONF[1]= 0 (Port1= EBUS)(unused)



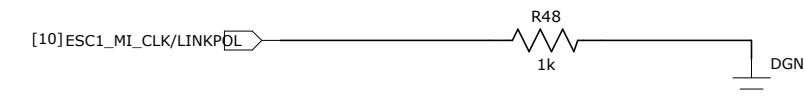
TX Shift [1:0]=00=0nS (unused)



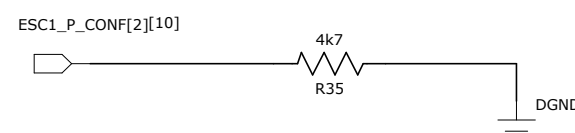
CPU\_CLK\_MODE [1:0]=00=OFF  
(config for PDI[7])



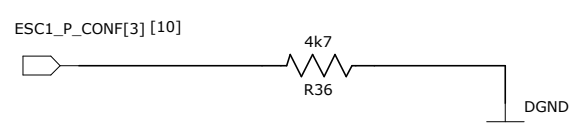
Link Polarity = 0 (unused)



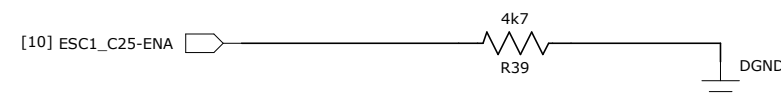
P\_CONF[2]= 0 (unused)



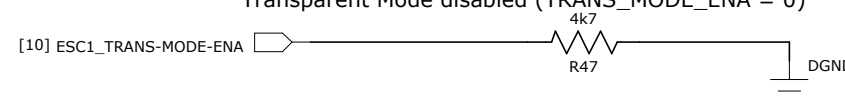
P\_CONF[3]= 0 (unused)



CLK25OUT2 (PDI31) disabled



Transparent Mode disabled (TRANS\_MODE\_ENA = 0)



Digital I/O control status signals not moved (unused)



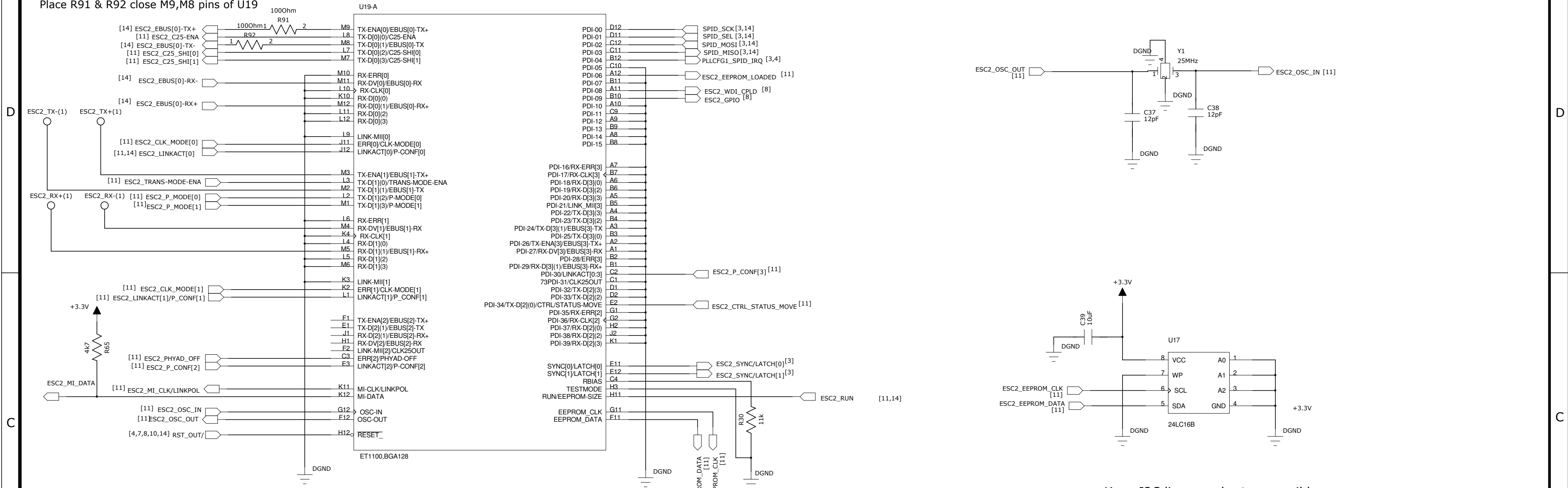
APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>		<b>29.04.11</b>		4725 121st Street - Des Moines, Iowa 50323			
CHECKED				Ethercat Slave Controller- 1			
ENGINEER				SIZE <b>C</b>	DWG. NO.	SHEET <b>10 of 14</b>	PROD REV.
				FILE		SCALE	

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DWG. NO. SH REV.

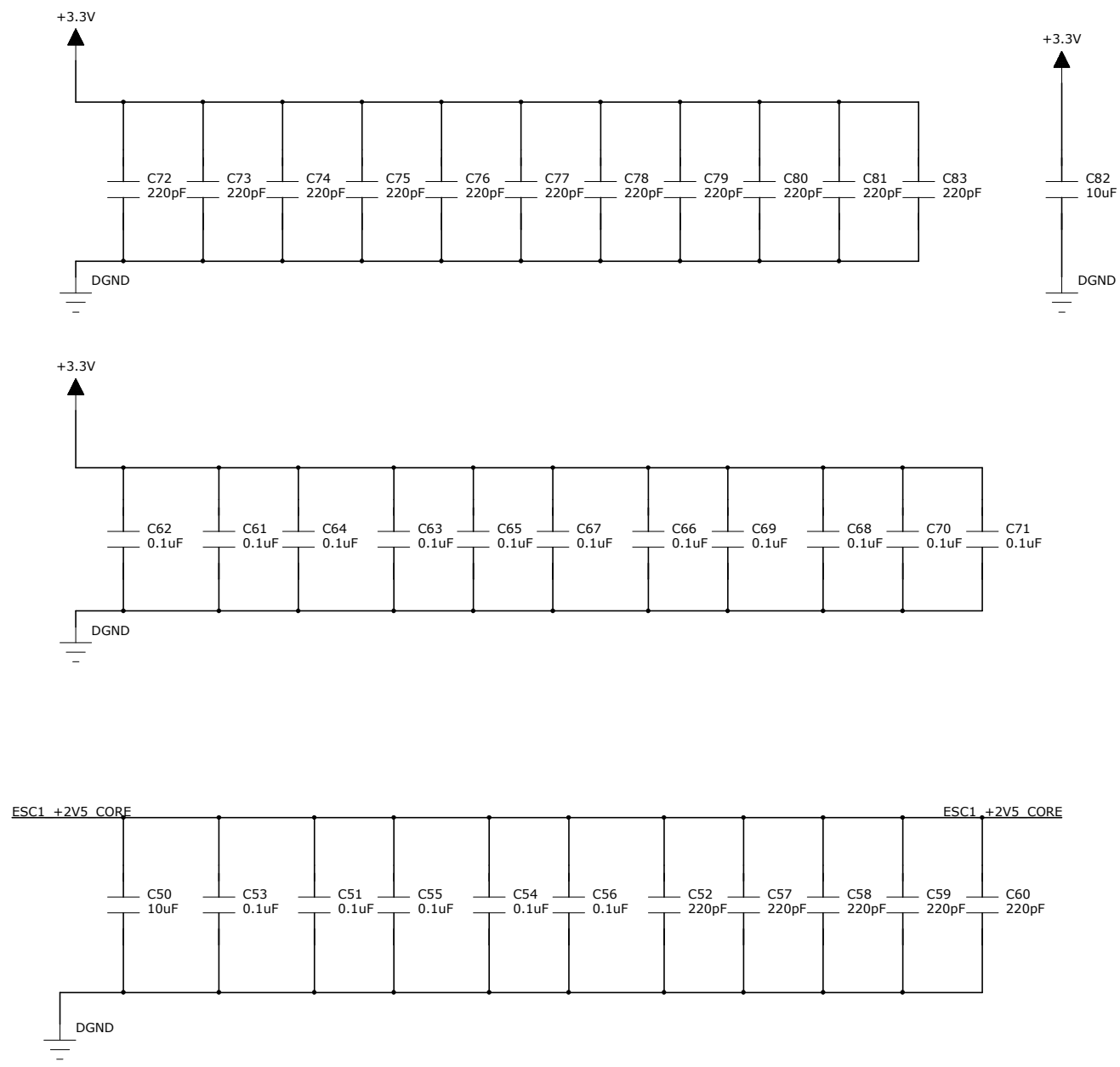
EtherCAT Slave Controller 2

Place R91 & R92 close M9,M8 pins of U19

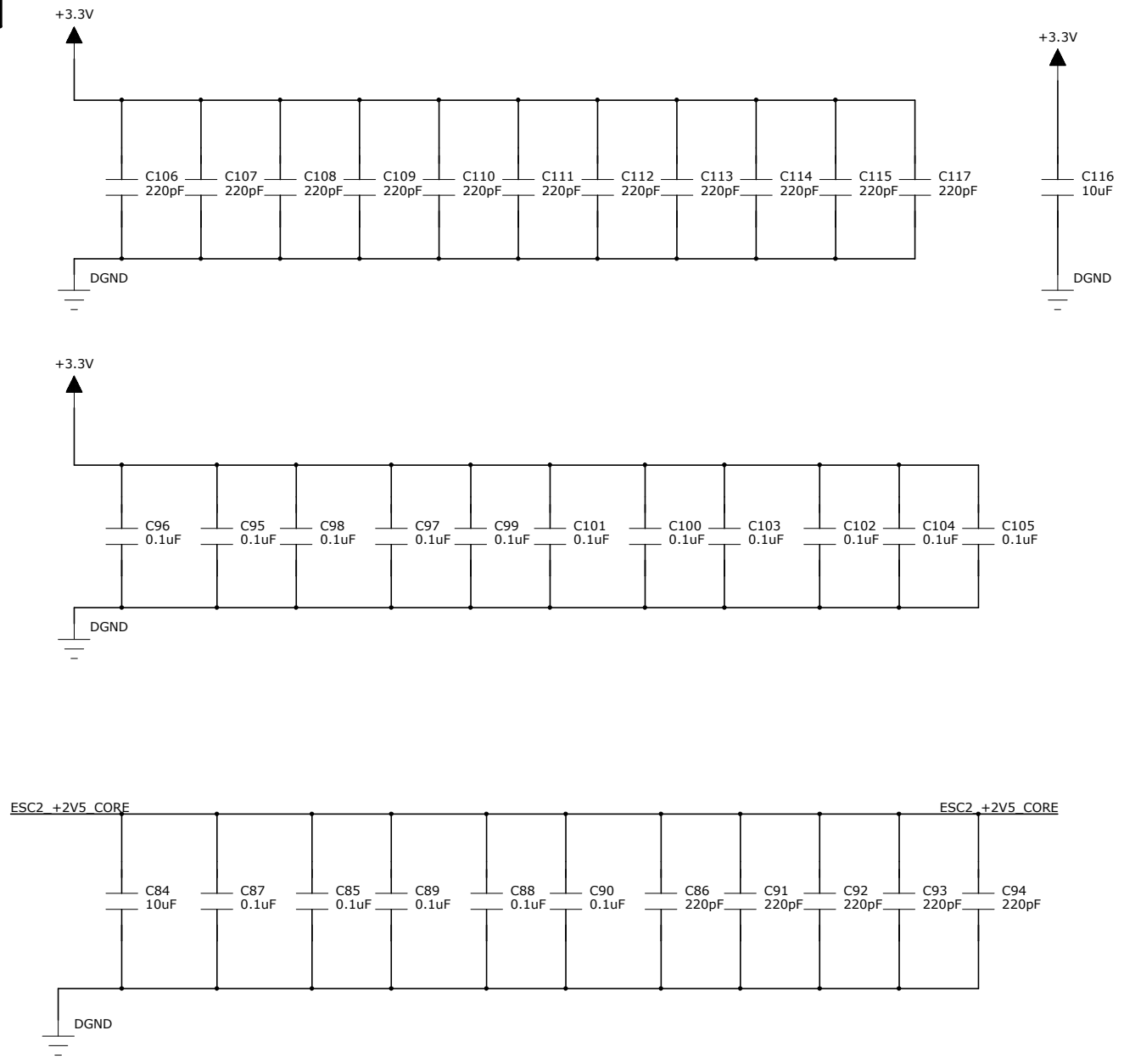
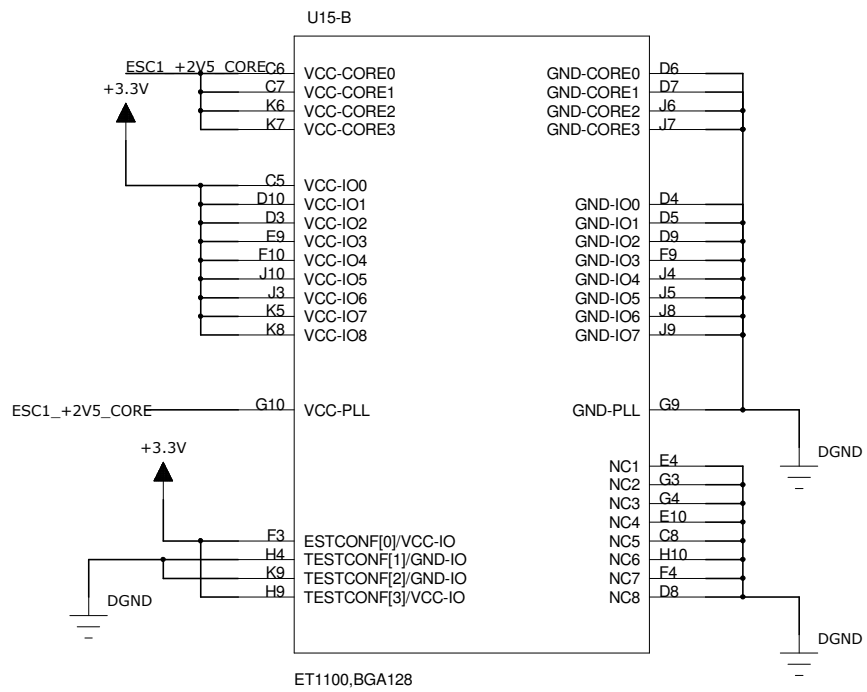


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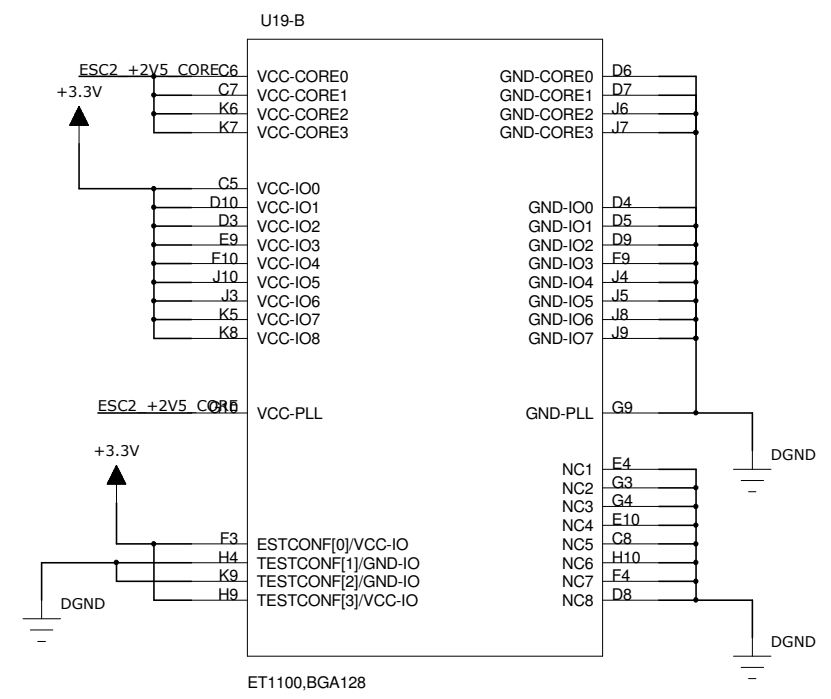
DWG. NO. SH REV.



EtherCAT Slave Controller 1- Power

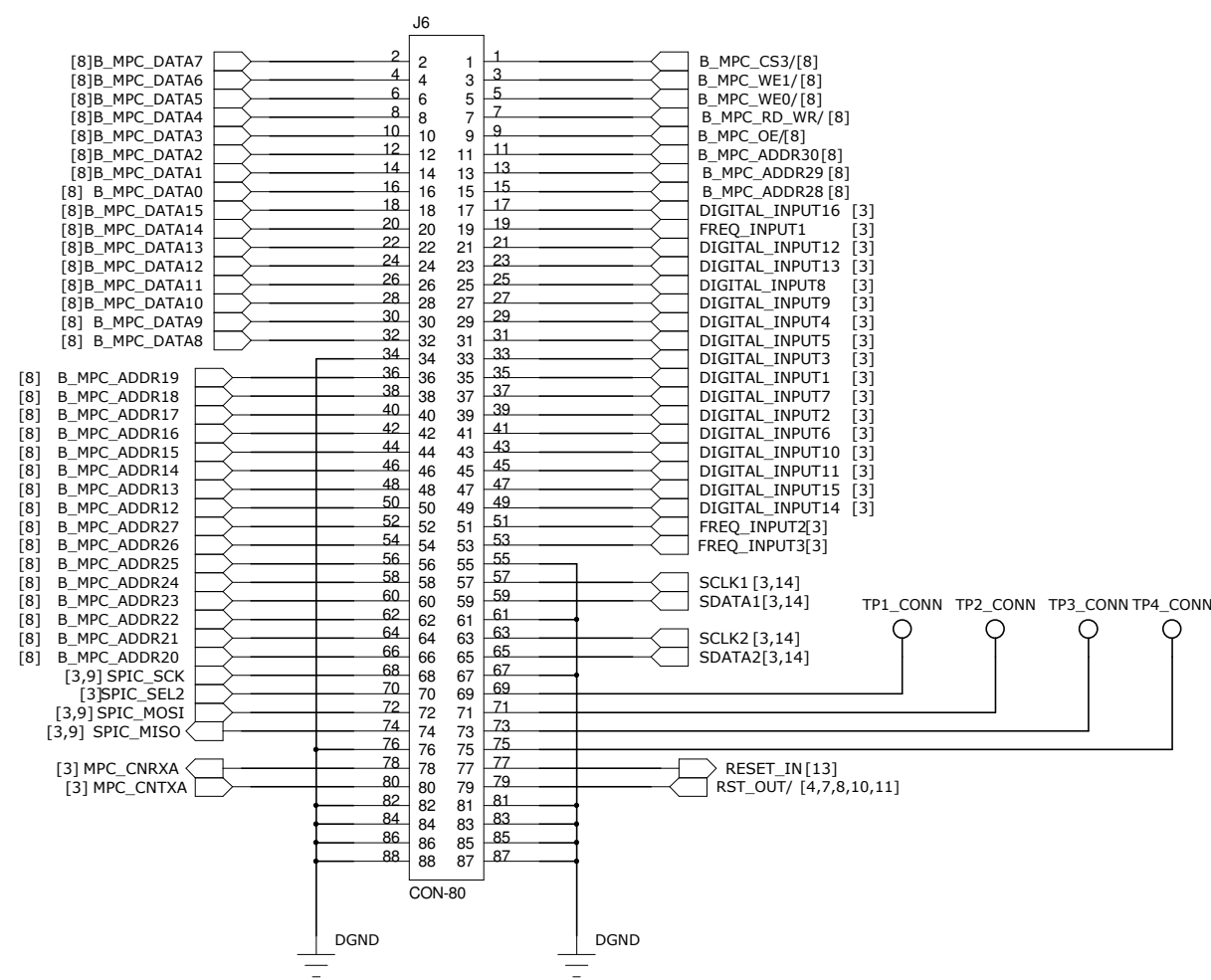


EtherCAT Slave Controller 2- Power

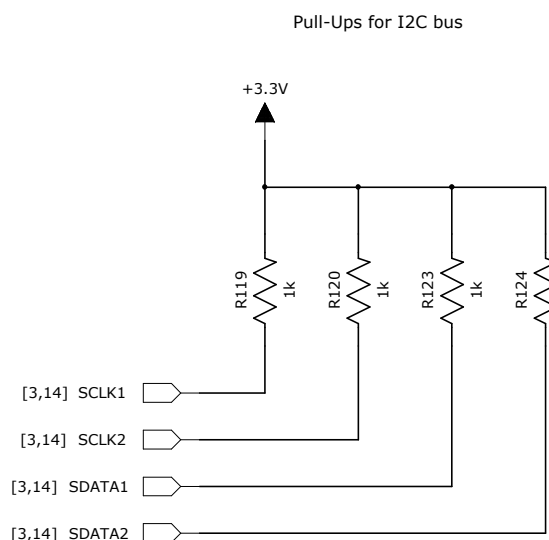
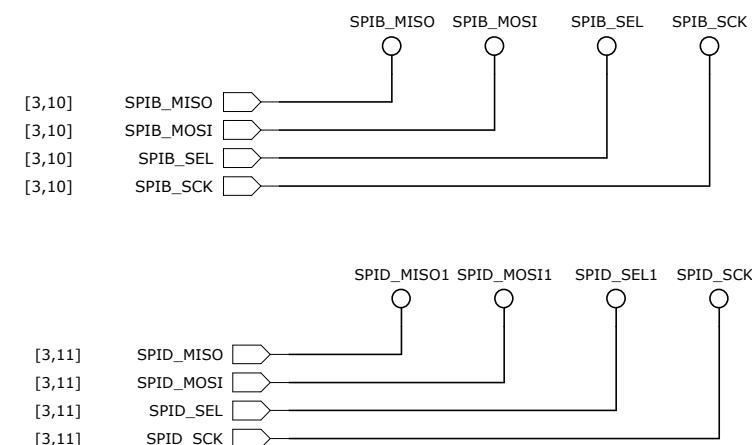
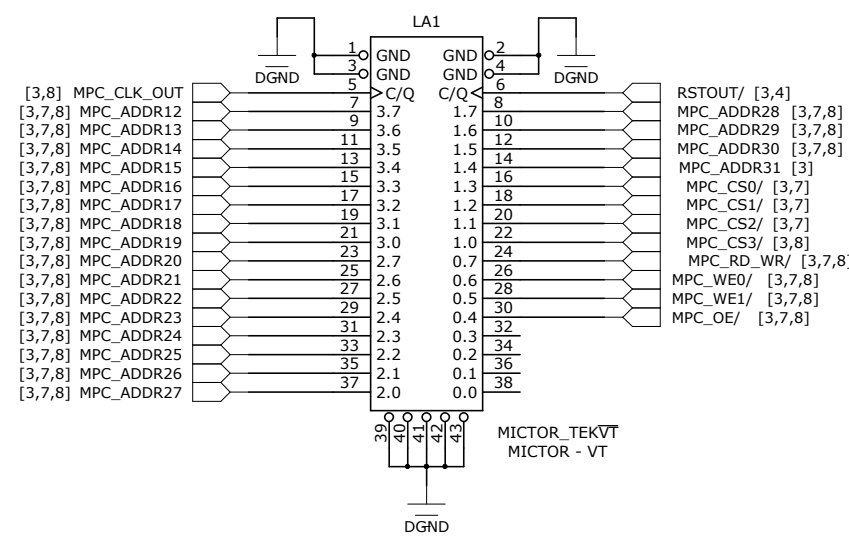


APPROVALS		DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>		<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED			Ethercat Controllers Power			
ENGINEER			SIZE <b>C</b>	DWG. NO.	SHEET <b>12 of 14</b>	PROD REV.
			FILE		SCALE	

APPROVALS	DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>	<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED		Power-3.3v, Reset, Unit gain OPAMP			
ENGINEER		SIZE <b>C</b>	DWG. NO. FILE	SHEET <b>13 of 14</b>	PROD REV.



## MICTOR CONNECTORS



APPROVALS	DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN <b>R.Vasavi</b>	<b>29.04.11</b>	4725 121st Street - Des Moines, Iowa 50323			
CHECKED		IOP board connector, MICTOR, Test points			
ENGINEER		SIZE <b>C</b>	DWG. NO.	SHEET <b>14 of 14</b>	PROD. REV.
		FILE		SCALE	