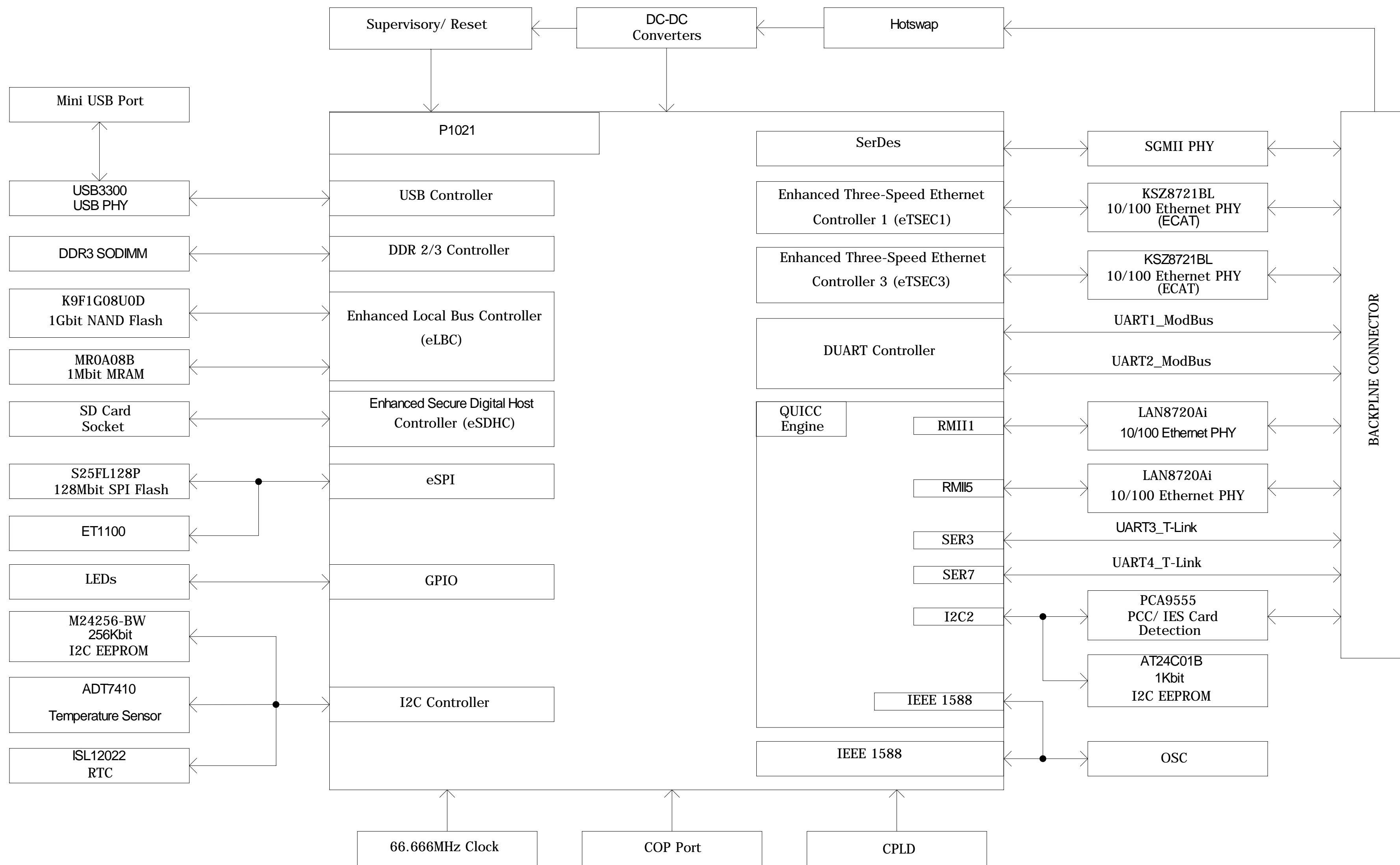


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<div>REVISION HISTORY</div> <table><thead><tr><th>REV</th><th>DATE</th><th>AUTHOR</th><th>CHANGES</th></tr></thead><tbody><tr><td>1.0</td><td>17 JULY 2011</td><td>Akhilesh</td><td></td></tr><tr><td>1.1</td><td>20 JULY 2011</td><td>Akhilesh</td><td>R404 and net CLK_CPLD_66M added U53 changed to 25MHz part U3 Address connections updated R405 and R406 added GND connection from J6-C1 removed</td></tr><tr><td>2.0</td><td>14 SEP 2011</td><td>Akhilesh</td><td>R344 made DNI U40 replaced with MAX16052. R408 added R399 moved between D25.2 and Q11.3. Q11.2 connected to GND Net USB_STP connected to U39.2. R409 added at U39.18 R147, R148, R149 and R150 replaced with 0402 package C12 and C13 made DNI U24.3 connected to GND R380 moved between D23.2 and Q10.3. Q10.2 connected to GND Nets LED_TSEC1_LINK_ACT and LED_TSEC1_SPD100 swapped</td></tr><tr><td></td><td>26 SEP 2011</td><td>AJM</td><td>Added inverter for RTS signals: U55 and U56; Added RTS_EN# to CTRL INV from CPLD; Removed net DEBUG_LED2 and associated LED; Added GPIO_RTS_EN to CPLD</td></tr></tbody></table> <div>SHEETS</div> <div>1. MAIN</div> <div>2. BLOCK DIAGRAM 1</div> <div>3. BLOCK DIAGRAM 2</div> <div>4. P1021_DDR3 MEMORY</div> <div>5. P1021_FLASH INTERFACE</div> <div>6. P1021_SYSTEM CONTROL</div> <div>7. ETHERNET_EEC</div> <div>8. ETHERNET_IES_ECAT</div> <div>9. GIGABIT ETHERNET</div> <div>10. I2C_SPI_SD-CARD</div> <div>11. ET1100</div> <div>12. USB_SERIAL</div> <div>13. P1021_POWER</div> <div>14. POWER ON STRAPPING - 1</div> <div>15. POWER ON STRAPPING - 2</div> <div>16. CPLD_HOT SWAP_LED</div> <div>17. POWER SUPPLY</div> <div>18. BACKPLANE INTERFACE</div>												REV	DATE	AUTHOR	CHANGES	1.0	17 JULY 2011	Akhilesh		1.1	20 JULY 2011	Akhilesh	R404 and net CLK_CPLD_66M added U53 changed to 25MHz part U3 Address connections updated R405 and R406 added GND connection from J6-C1 removed	2.0	14 SEP 2011	Akhilesh	R344 made DNI U40 replaced with MAX16052. R408 added R399 moved between D25.2 and Q11.3. Q11.2 connected to GND Net USB_STP connected to U39.2. R409 added at U39.18 R147, R148, R149 and R150 replaced with 0402 package C12 and C13 made DNI U24.3 connected to GND R380 moved between D23.2 and Q10.3. Q10.2 connected to GND Nets LED_TSEC1_LINK_ACT and LED_TSEC1_SPD100 swapped		26 SEP 2011	AJM	Added inverter for RTS signals: U55 and U56; Added RTS_EN# to CTRL INV from CPLD; Removed net DEBUG_LED2 and associated LED; Added GPIO_RTS_EN to CPLD																																		
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						FILE APP CARD SCHEMATIC		SCALE																																																									
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BLOCK DIAGRAM



2.0

APPROVALS		DATE		<div>COMPRESSOR CONTROLS CORPORATION</div> <div>4725 121st Street - Des Moines, Iowa 50323</div>			
DRAWN AKHILESH JAISWAL		14-SEP-2011					
CHECKED							
ENGINEER				<div>SIZE</div> <div>C</div>	<div>DWG. NO.</div> <div>18-600400-001</div>	<div>SHEET</div> <div>2</div>	<div>PROD REV.</div> <div>2.0</div>
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1		2		3		4		5		6																																																															
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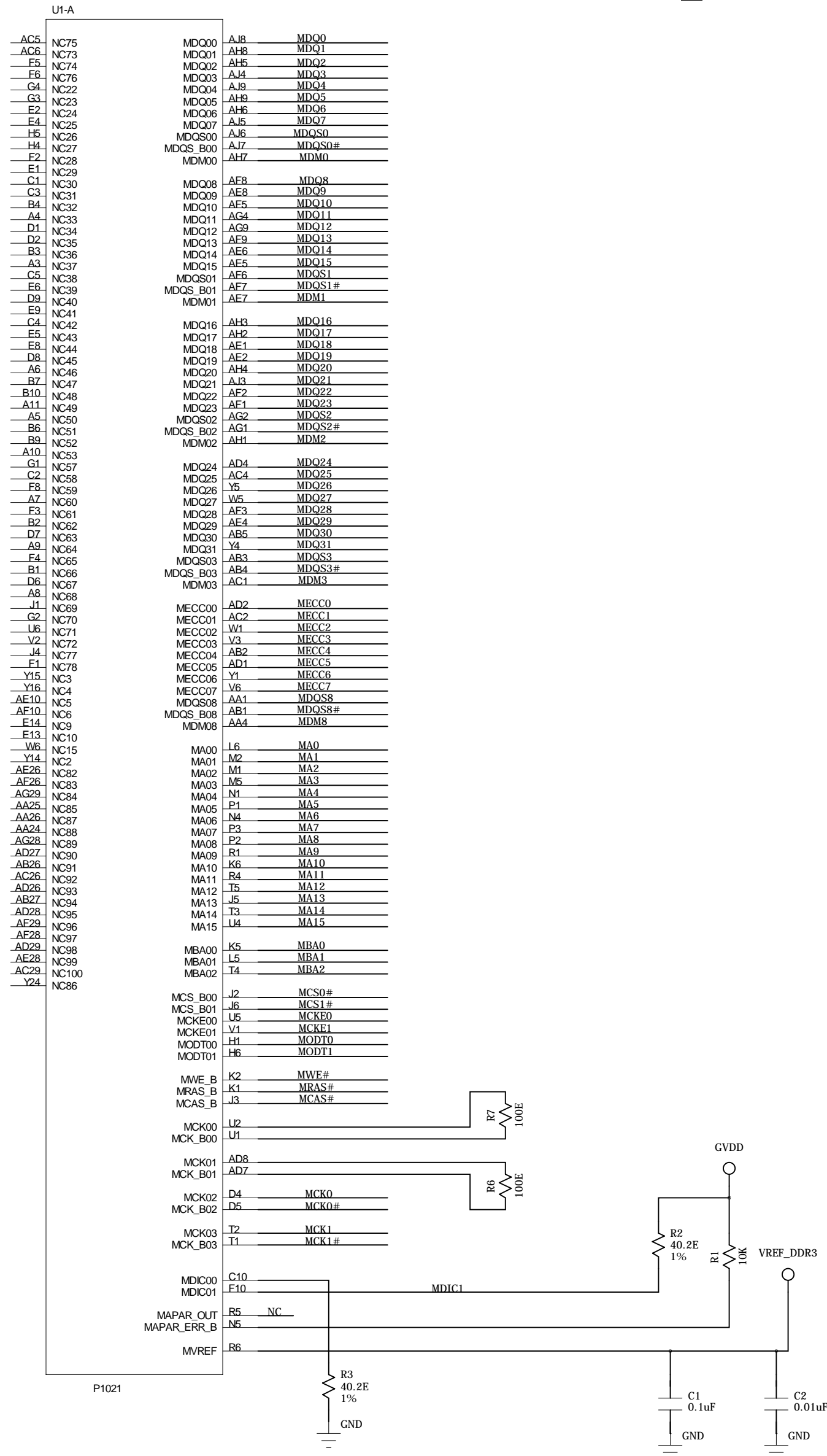
DWG. NO.

SH

REV.

P1021_DDR3

DDR3 SODIMM



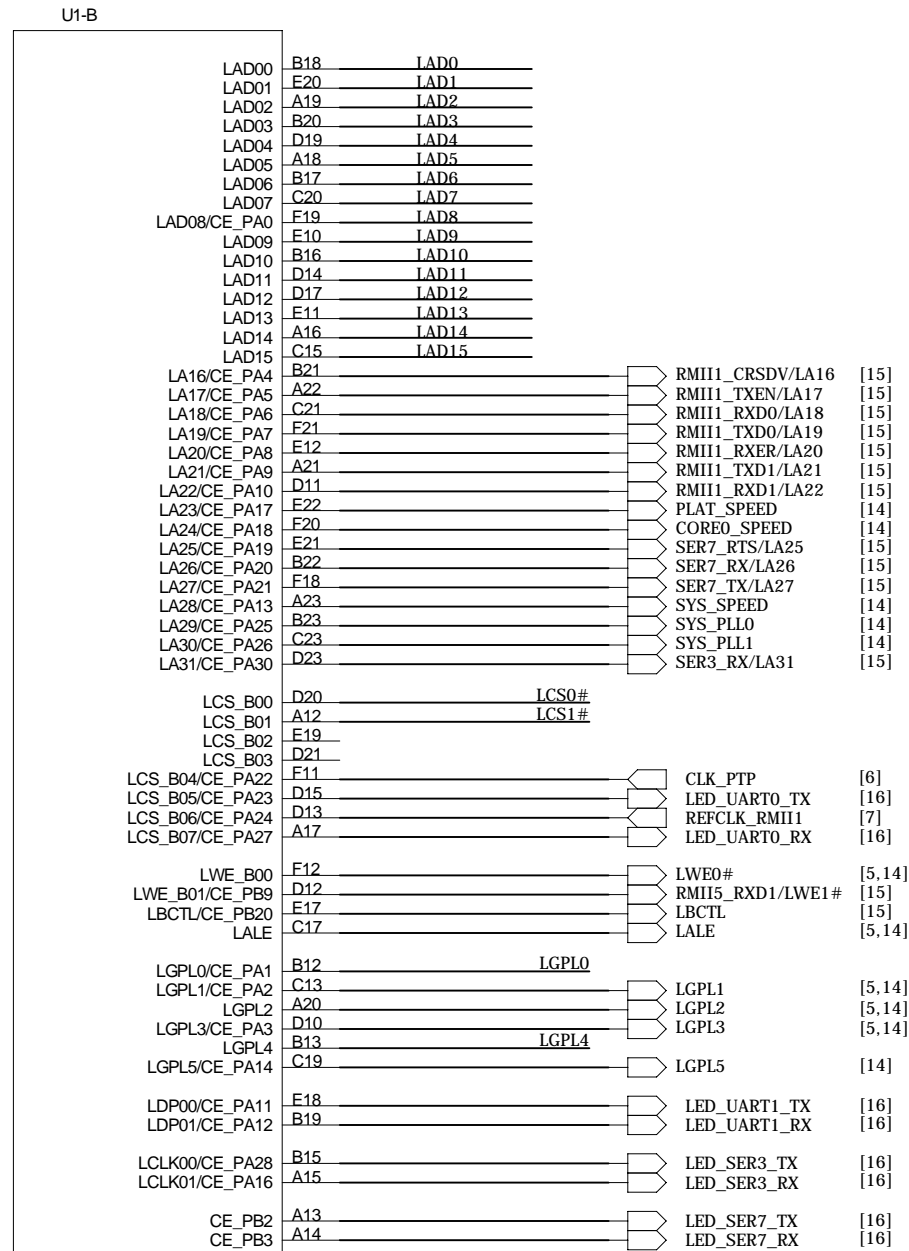
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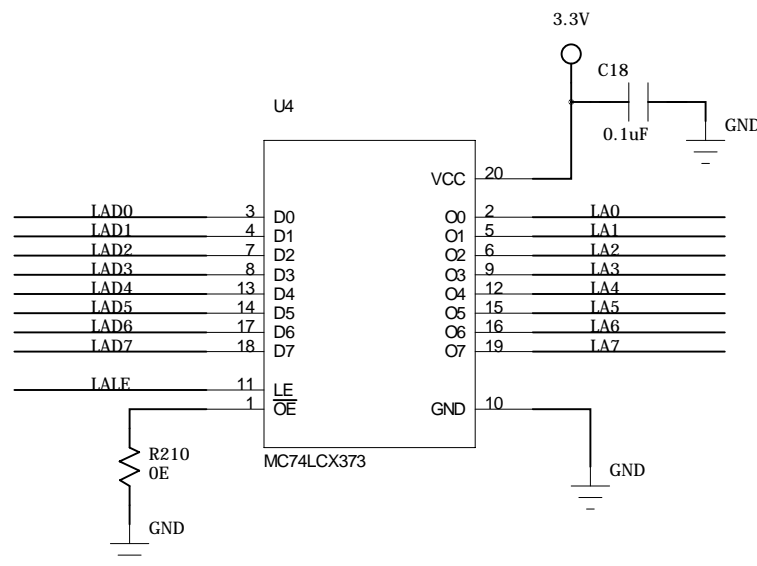
REV.

P1021_LOCAL BUS

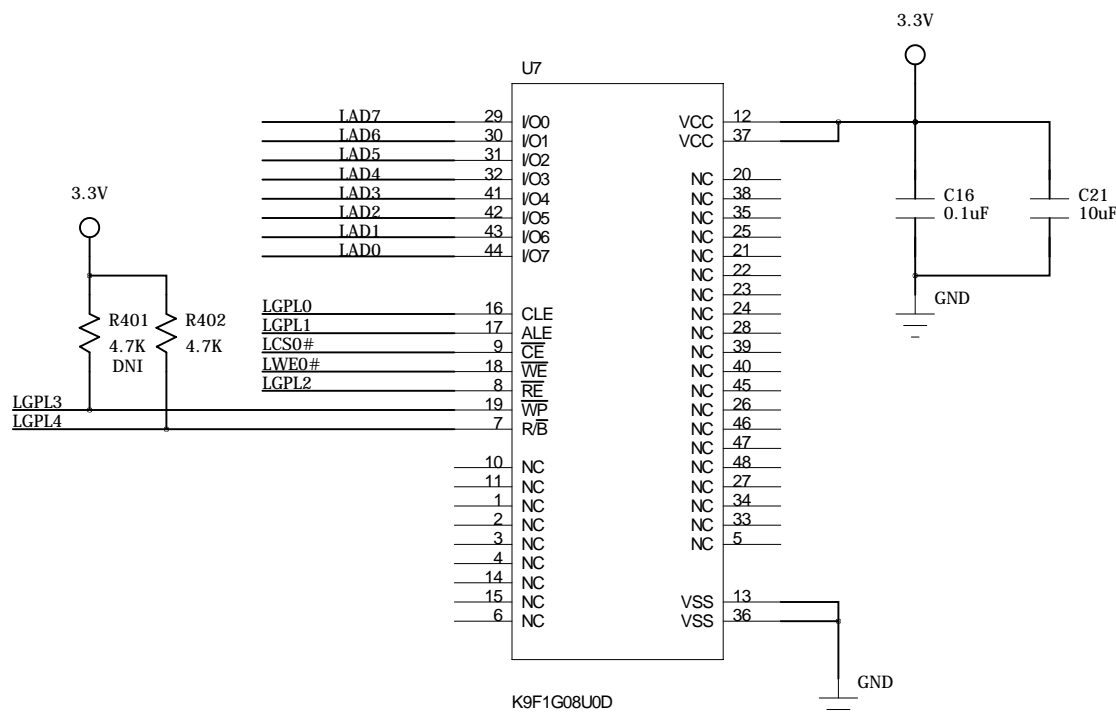


P1021

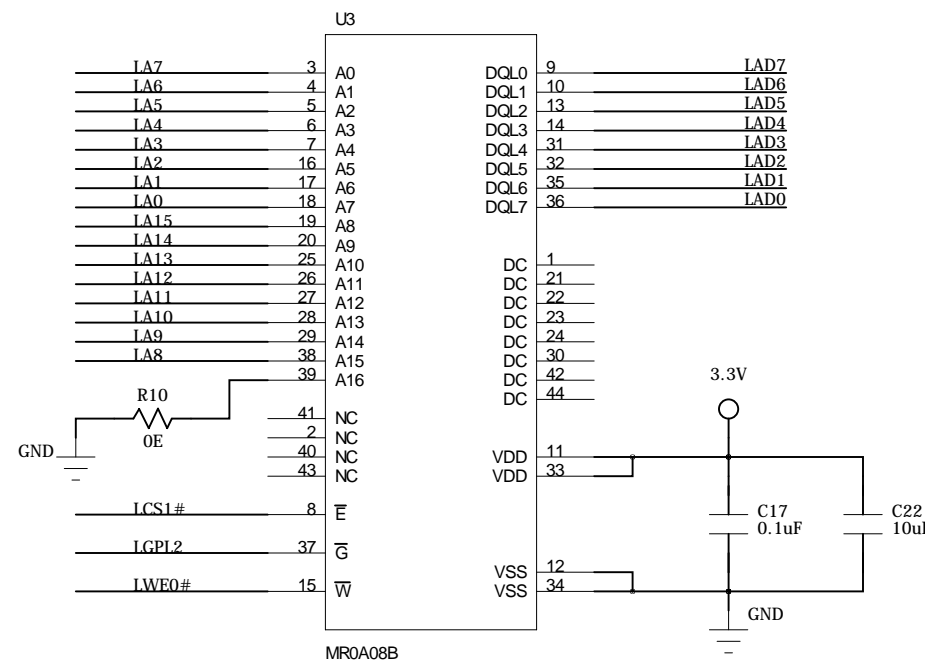
LOCAL BUS LATCH



NAND FLASH : 1GBIT

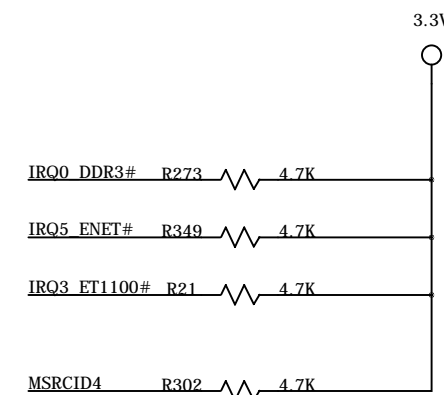
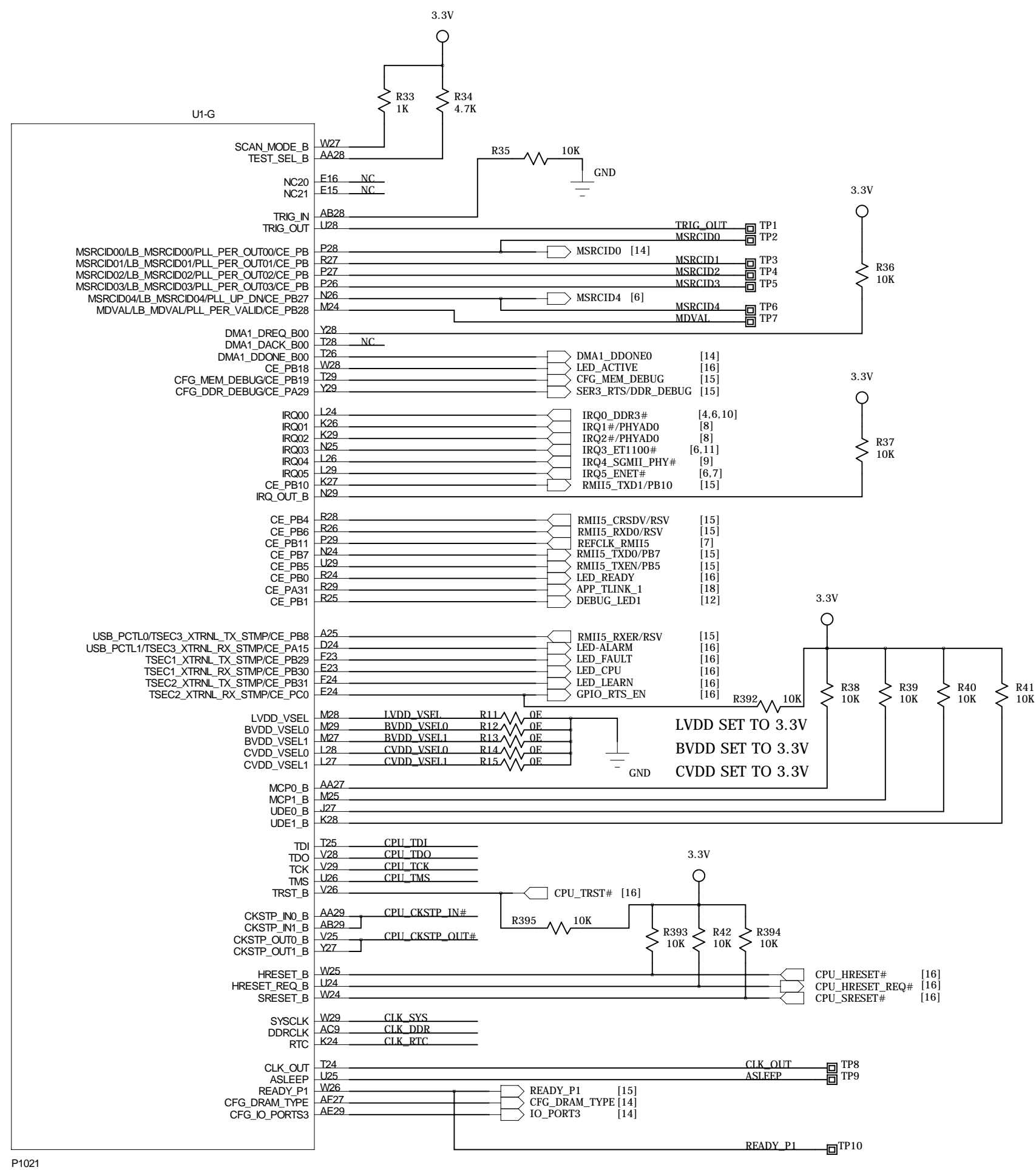


MRAM : 1MBIT

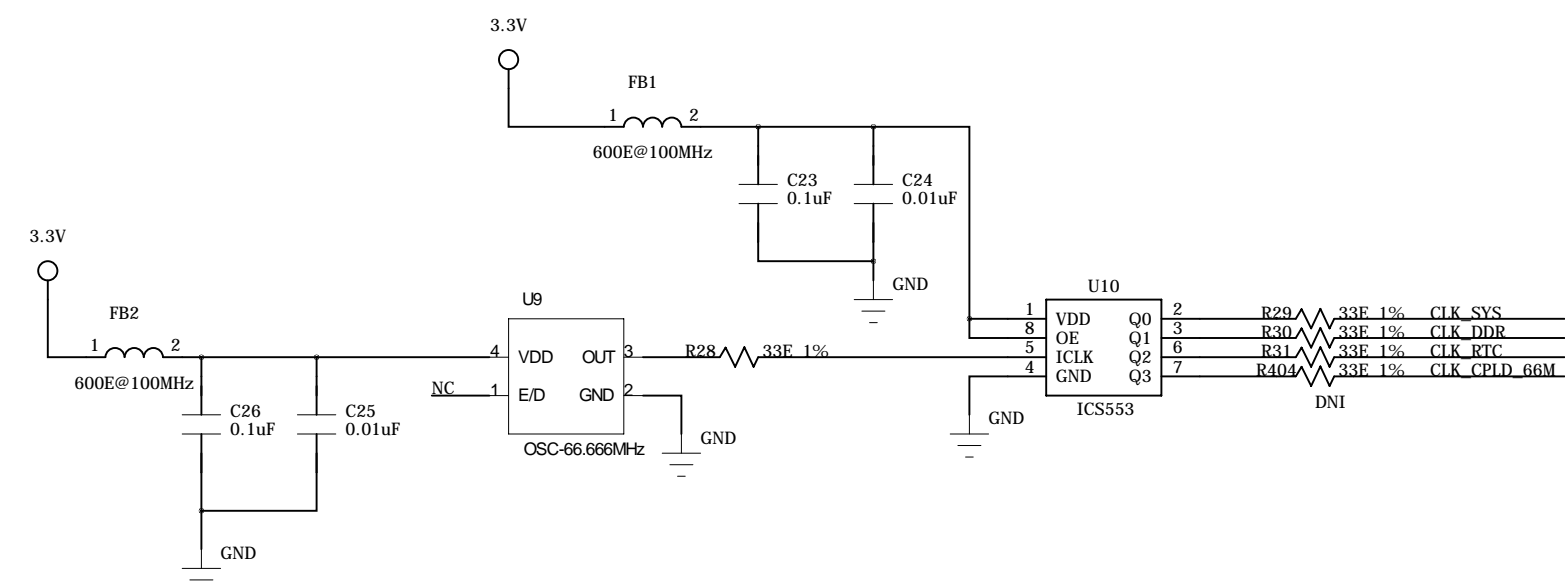


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CHECKED							
ENGINEER			SIZE C	DWG. NO. 18-600400-001	SHEET 5	PROD REV. 2.0	
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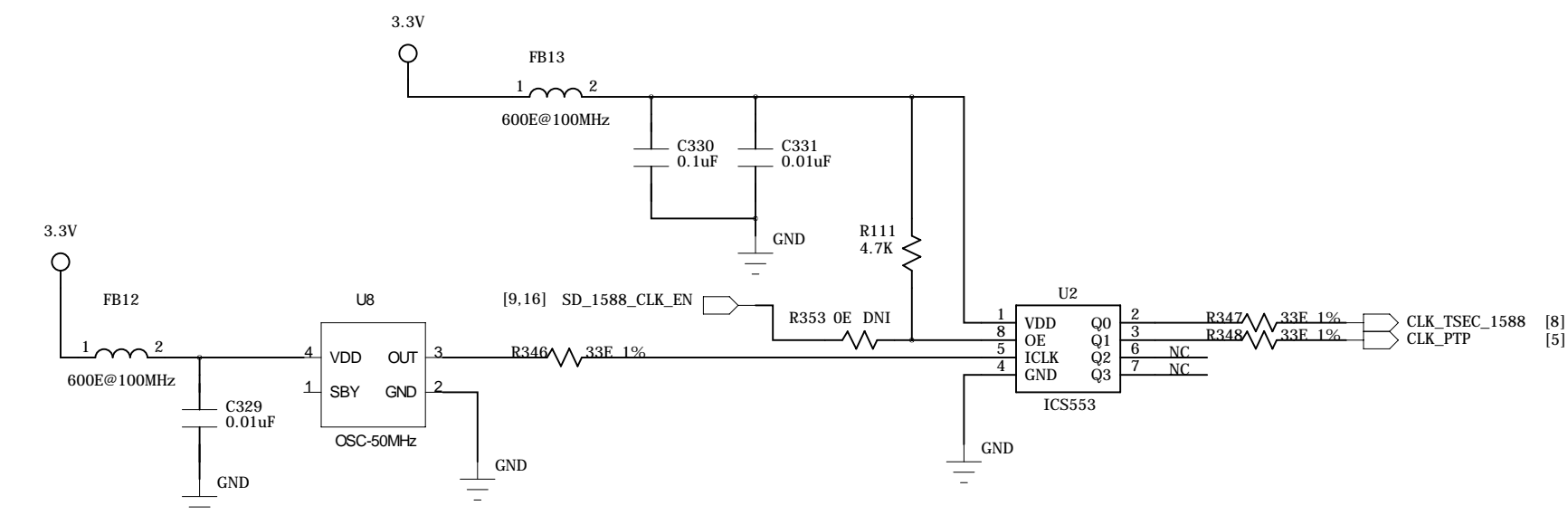
P1021_SYSTEM CONTROL



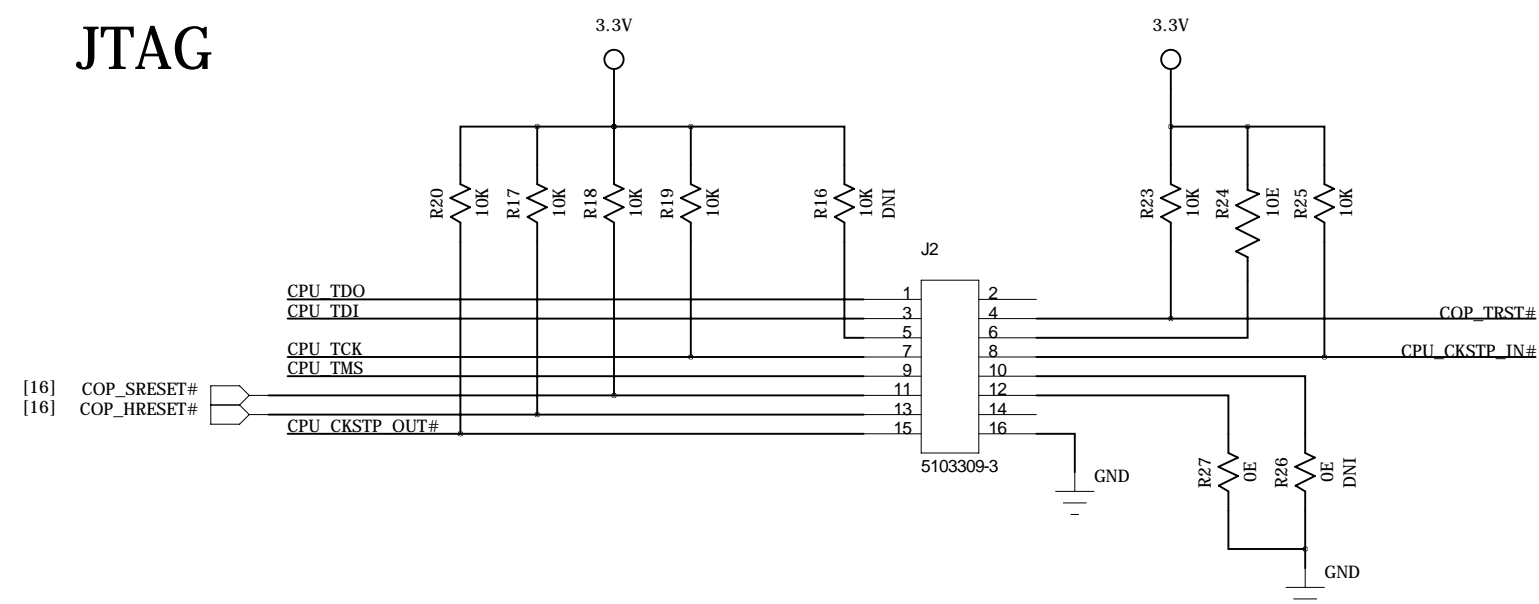
SYSTEM CLOCK



IEEE-1588 CLOCK



JTAG



APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION			
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CHECKED							
ENGINEER				SIZE <div>C</div>	DWG. NO. 18-600400-001 FILE APP CARD SCHEMATIC	SHEET 6 SCALE	PROD REV. 2.0

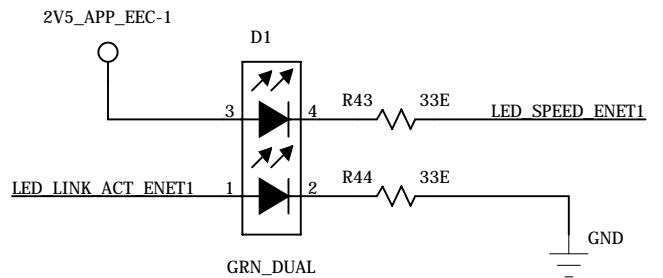
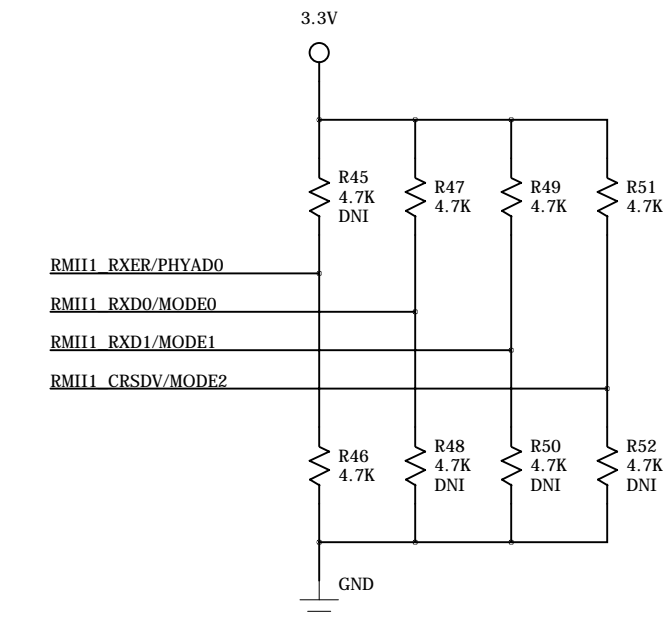
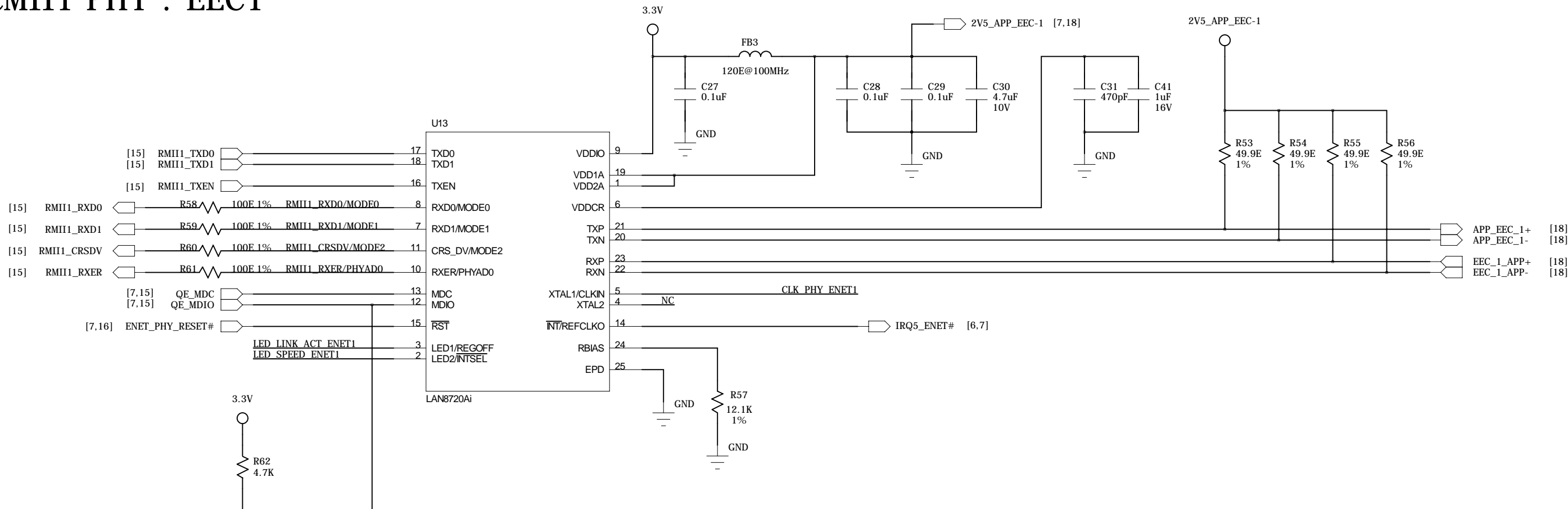
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DWG. NO.

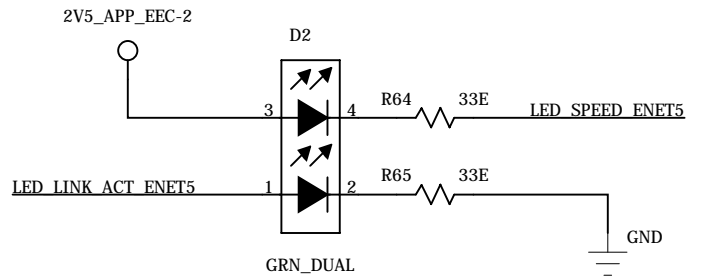
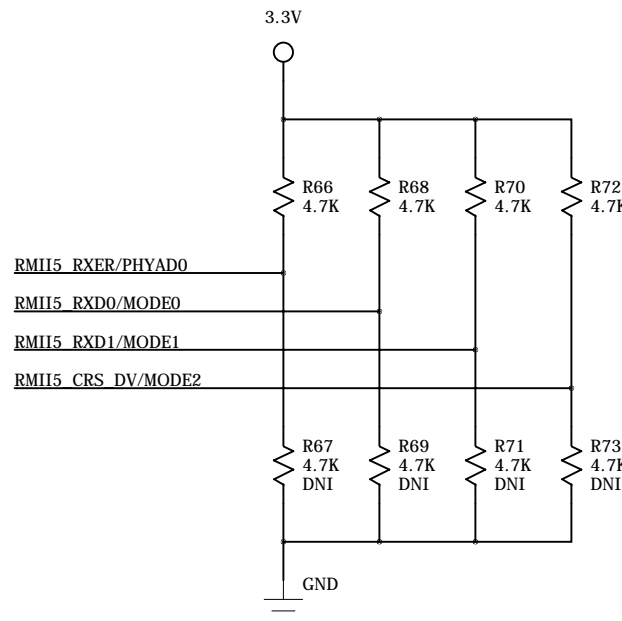
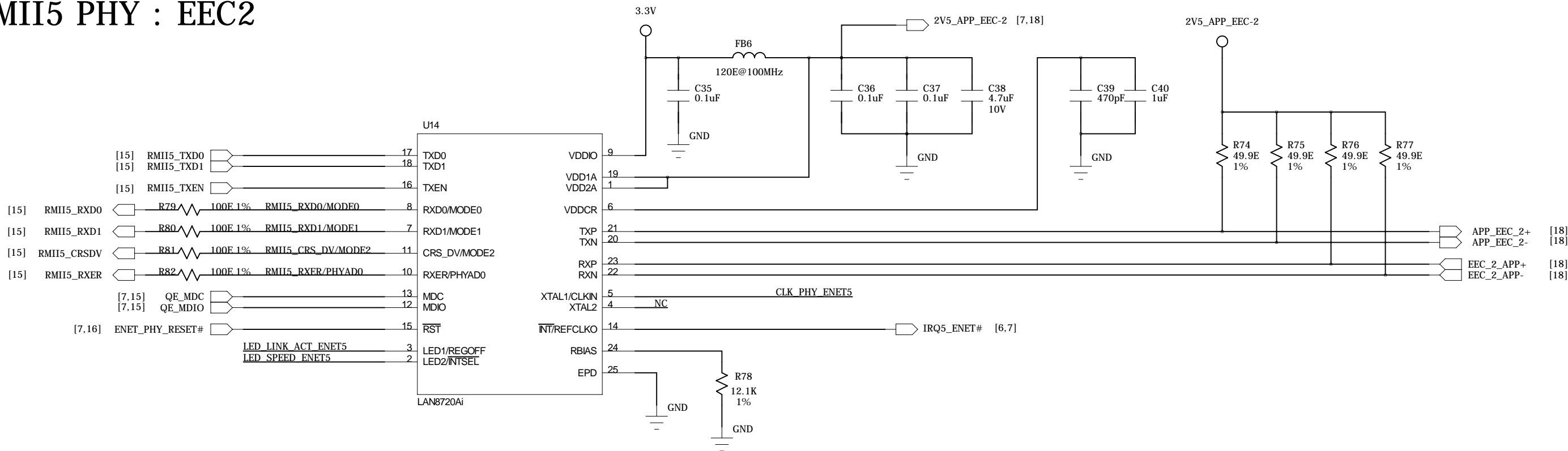
SH

REV.

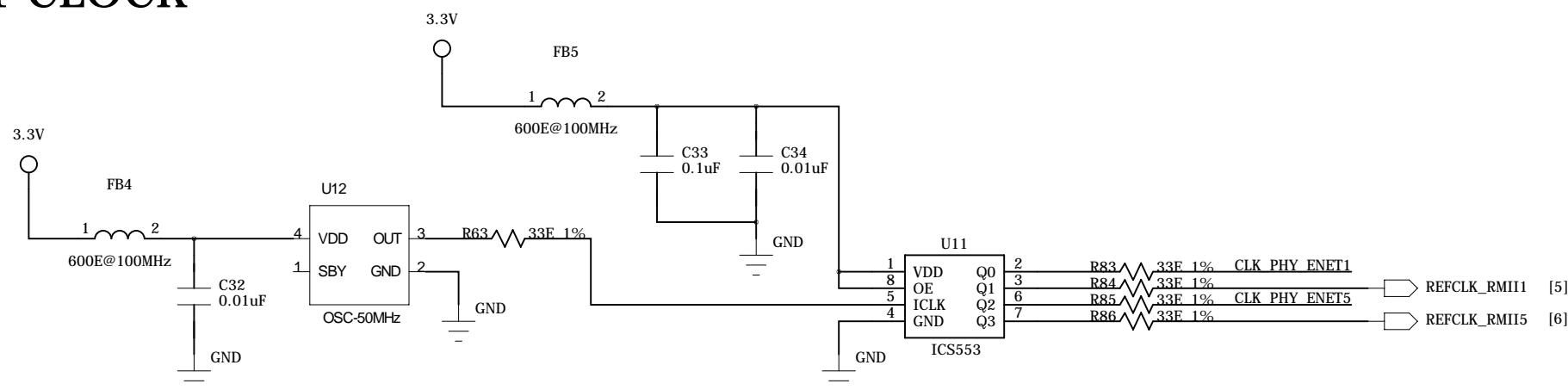
RMII1 PHY : EEC1



RMII5 PHY : EEC2



RMII CLOCK



APPROVALS

DATE

COMPRESSOR CONTROLS CORPORATION

4725 121st Street - Des Moines, Iowa 50323

DRAWN

AKHILESH JAISWAL

14-SEP-2011

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ENGINEER

SIZE

C

DWG. NO.

18-600400-001

FILE

APP CARD SCHEMATIC

SHEET

7

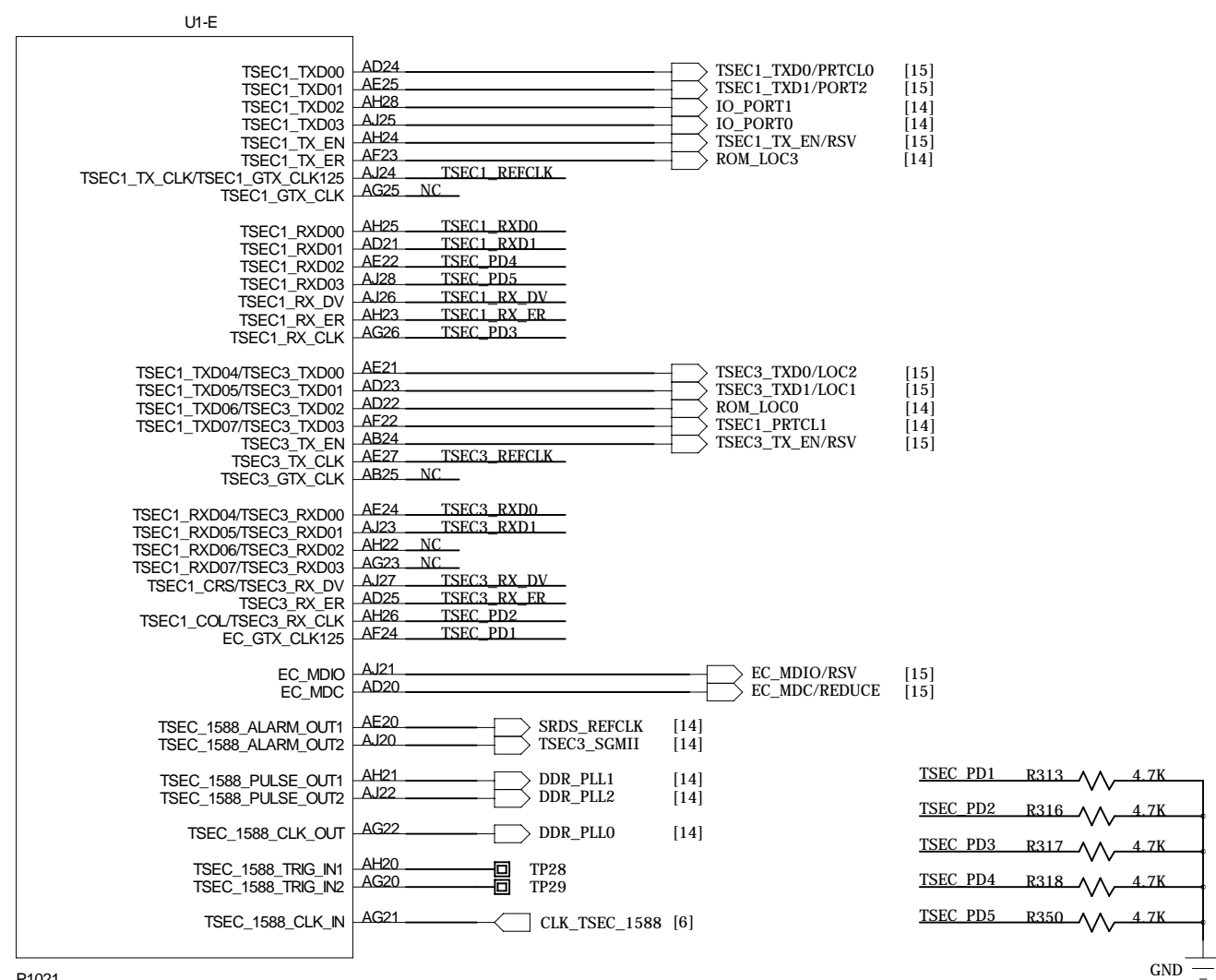
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PROD

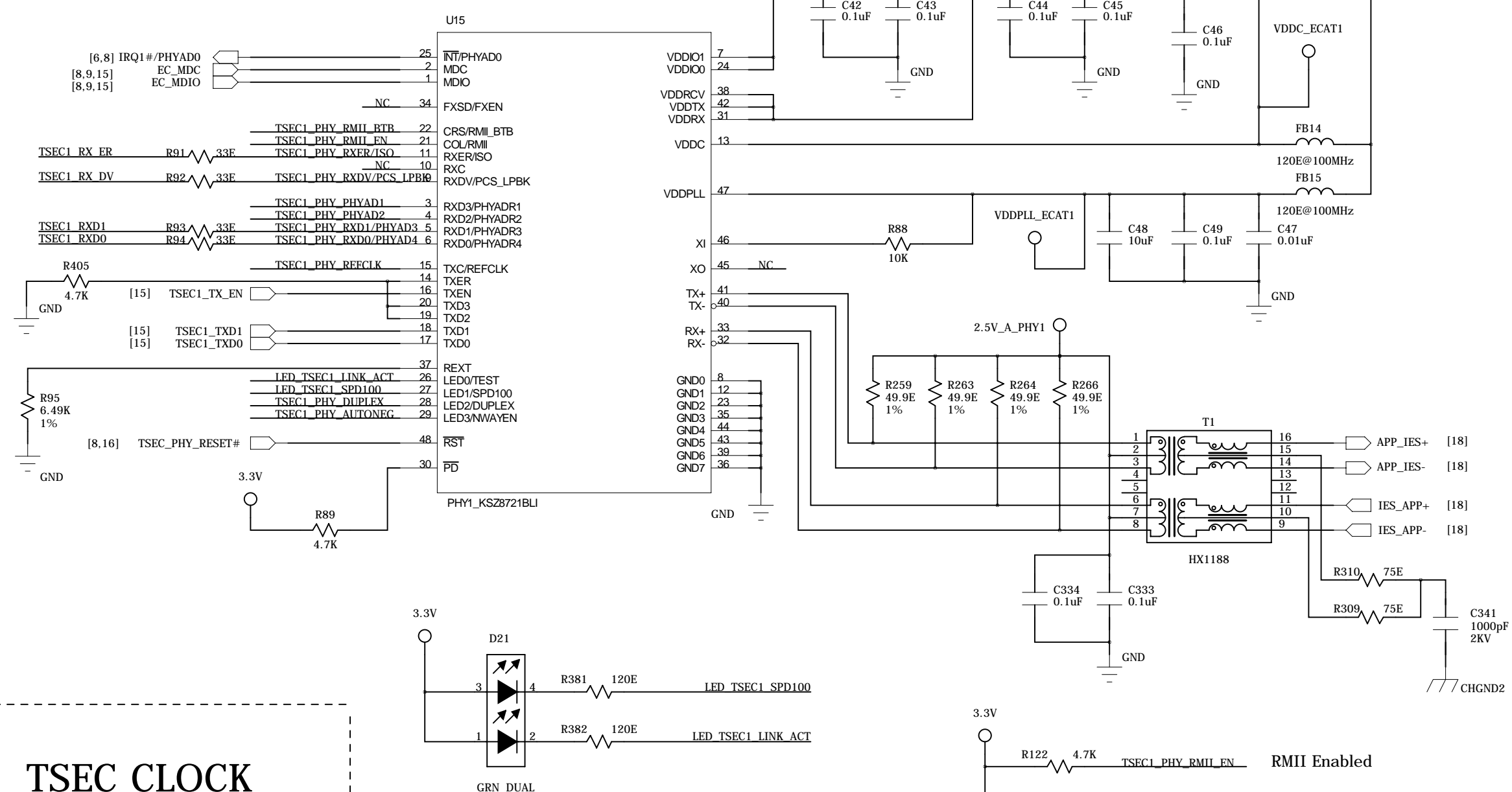
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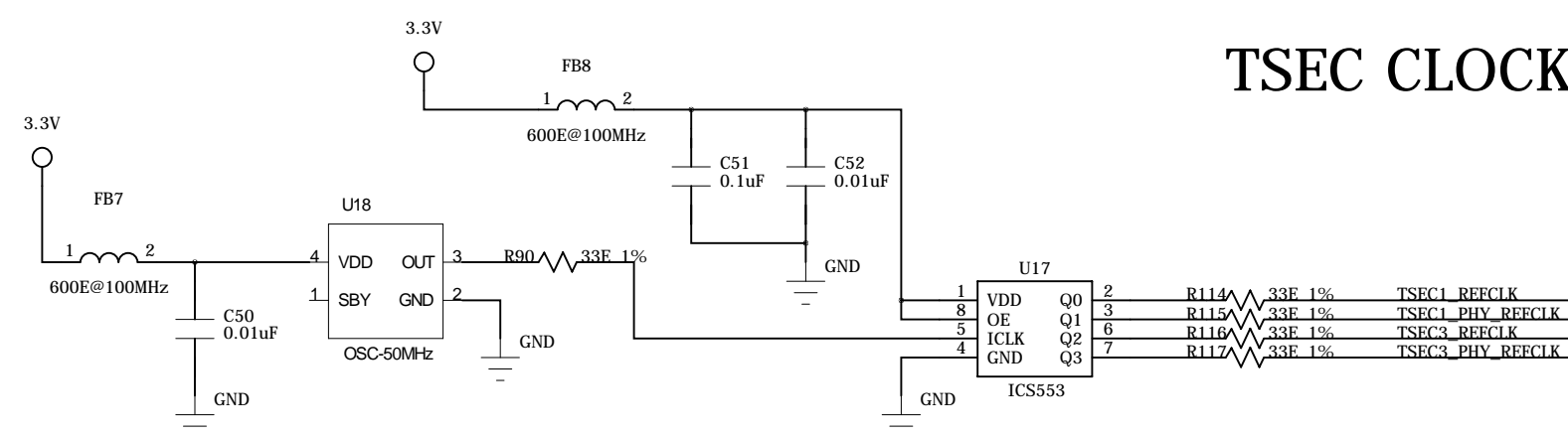
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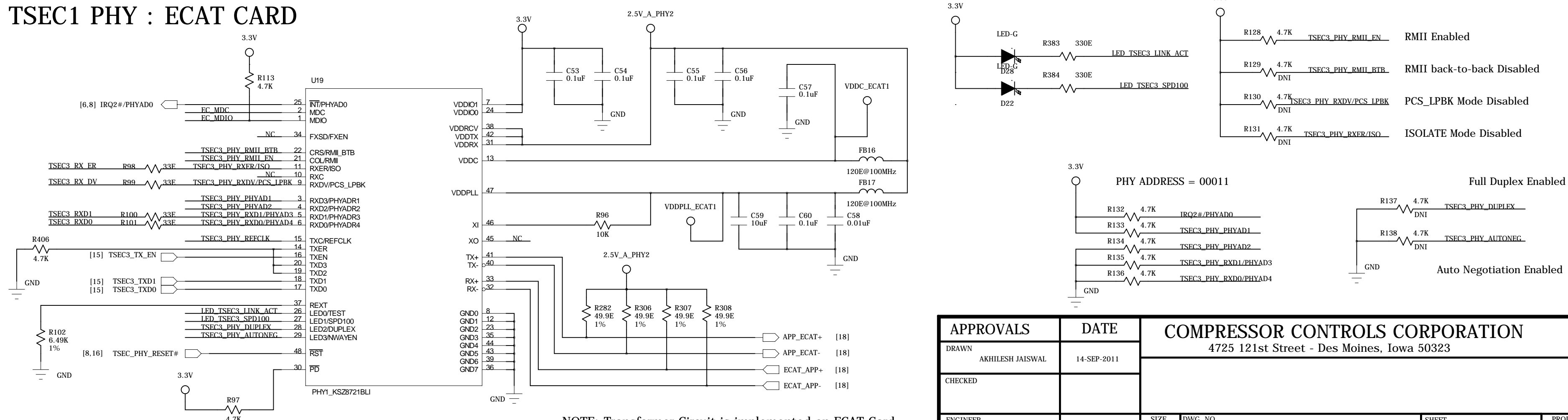
TSEC1 PHY : IES CARD



TSEC CLOCK



TSEC1 PHY : ECAT CARD



NOTE: Transformer Circuit is implemented on ECAT Card

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ENGINEER				SIZE C	DWG. NO. 18-600400-001	SHEET 8	PROD REV. 2.0
				FILE APP CARD SCHEMATIC	SCALE		

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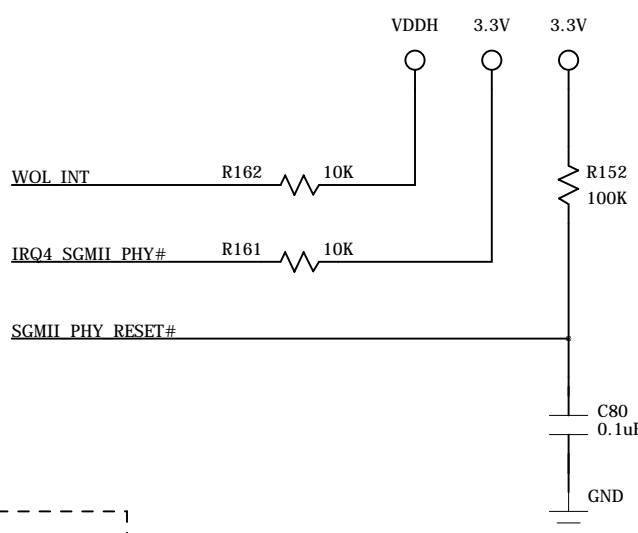
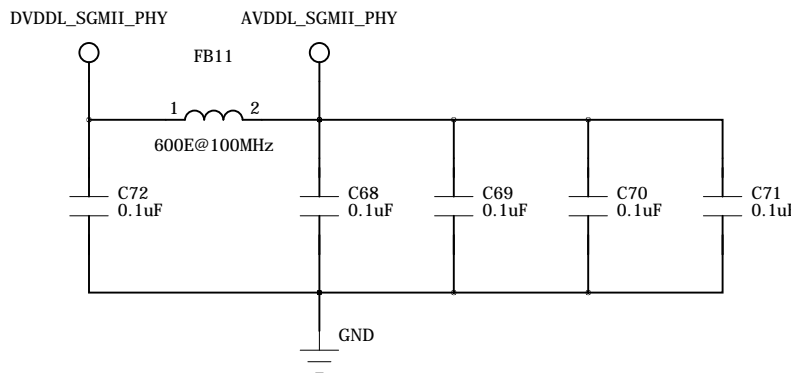
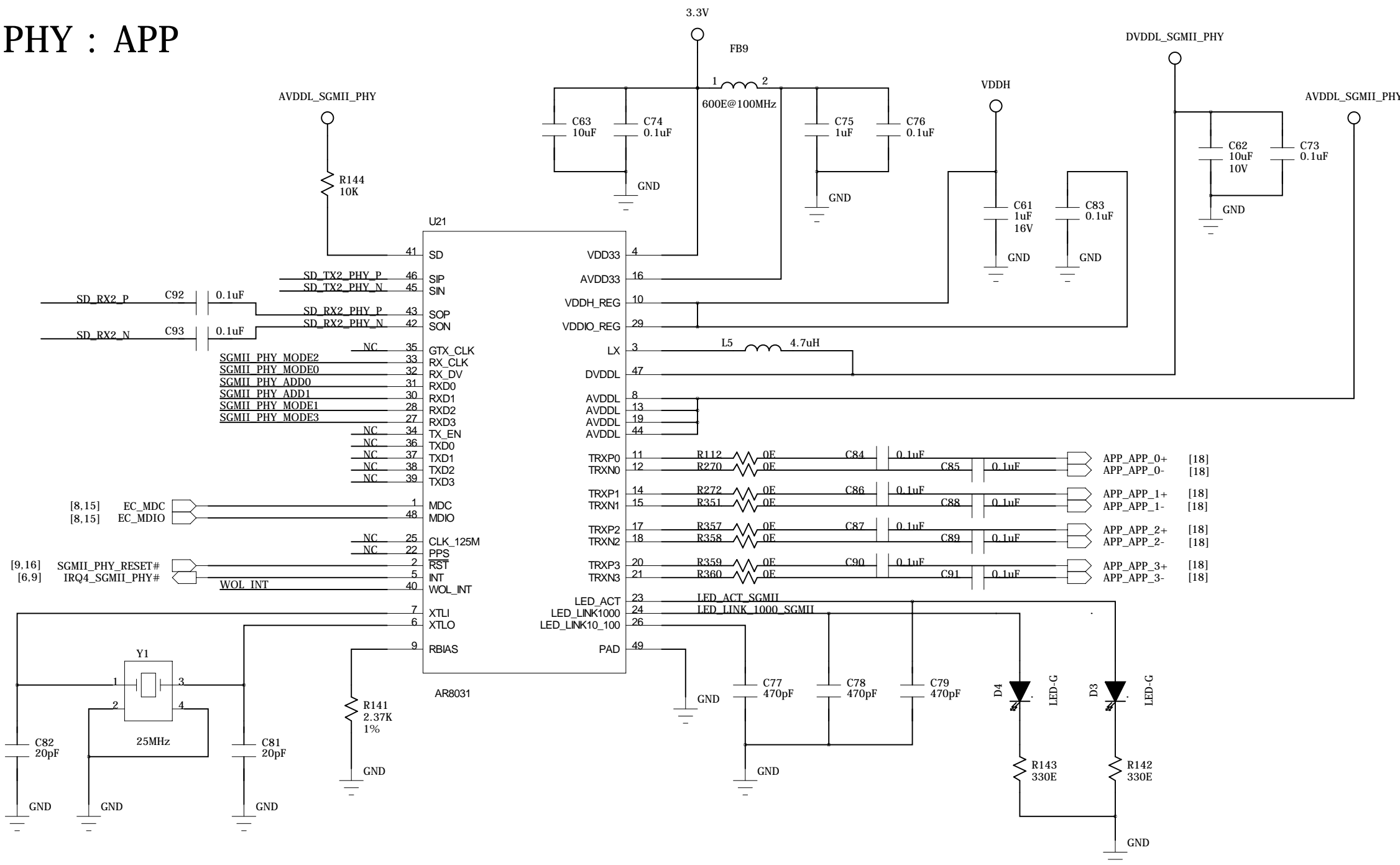
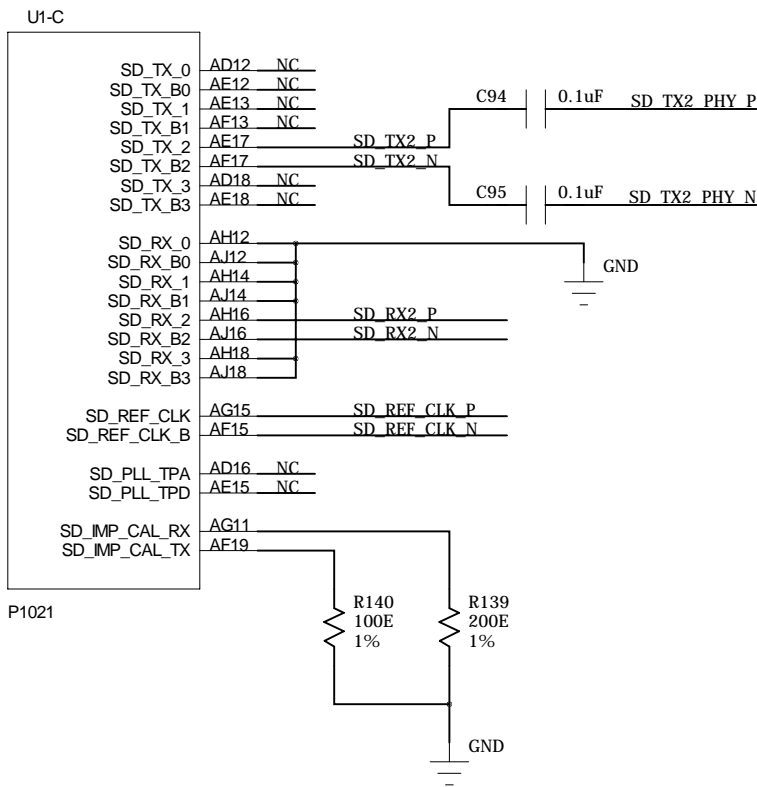
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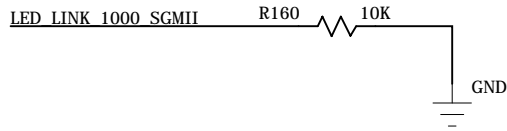
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SGMII PHY : APP

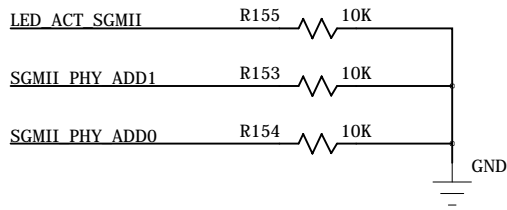
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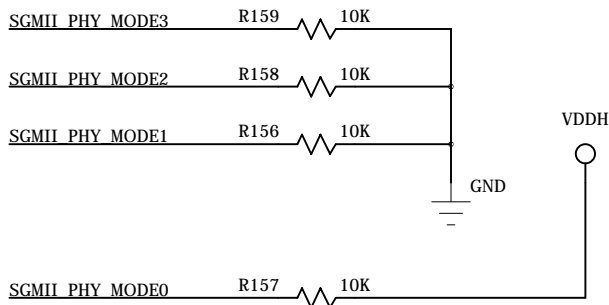
Interrupt Function Enabled on Pin - 5



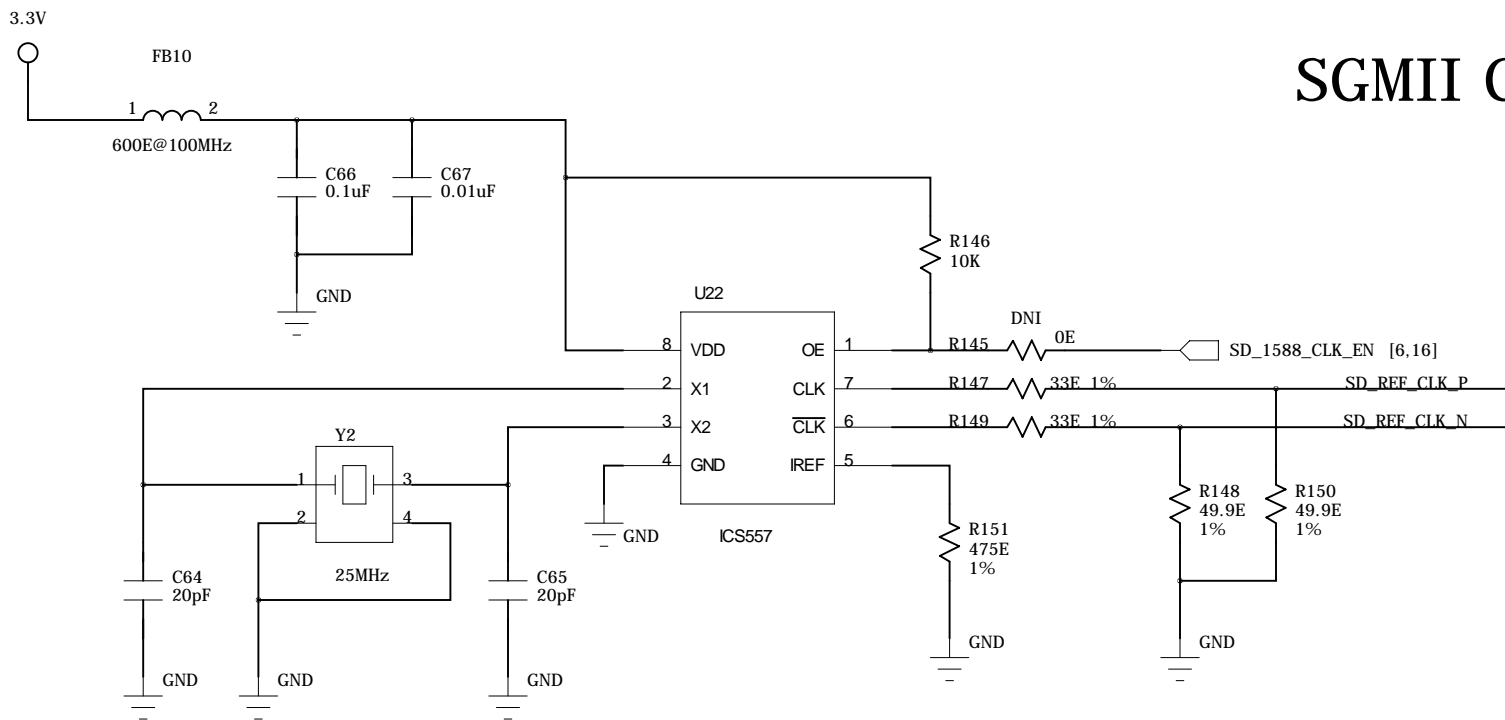
PHY Address Bit [2:0] : 000



AR8031 Mode : 1000 BASE-T, SGMII



SGMII CLOCK



APPROVALS

DATE

COMPRESSOR CONTROLS CORPORATION

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DRAWN

14-SEP-2011

CHECKED

ENGINEER

SIZE

DWG. NO.

18-600400-001

SHEET

9

PROD

REV.

2.0

FILE

APP CARD SCHEMATIC

SCALE

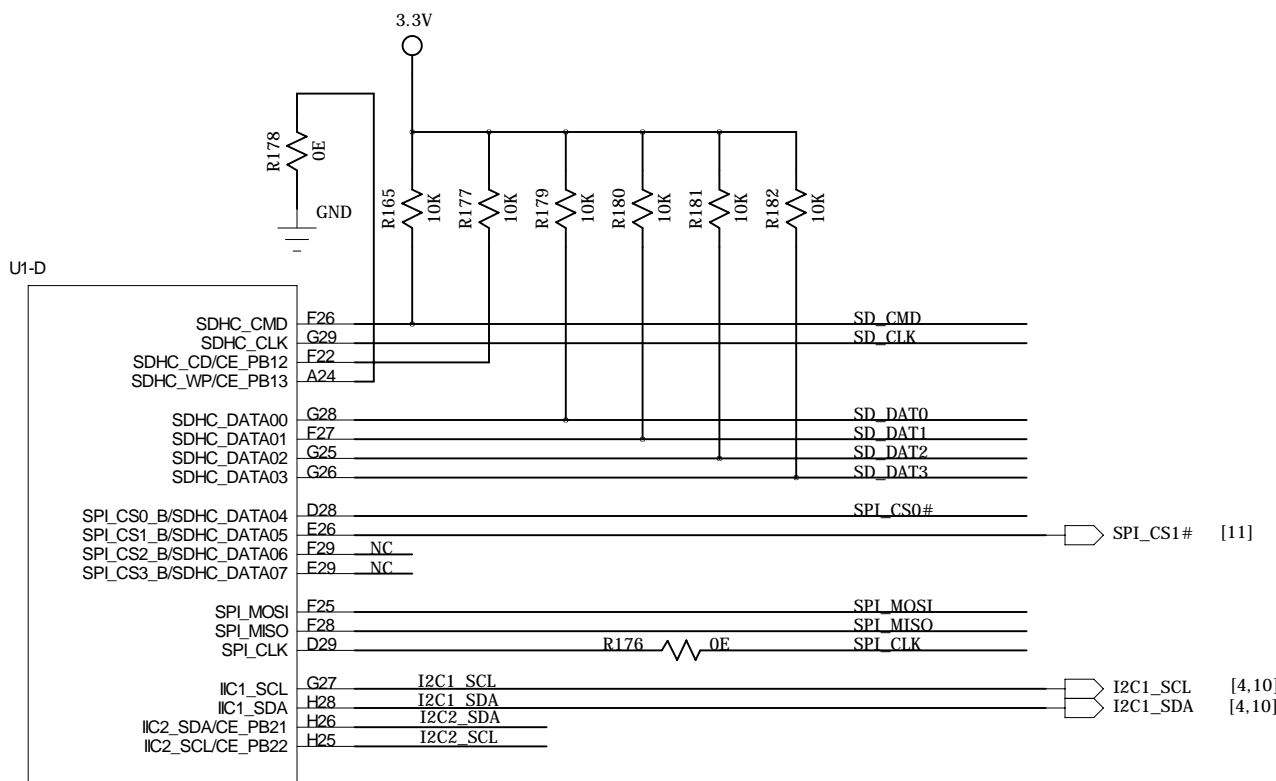
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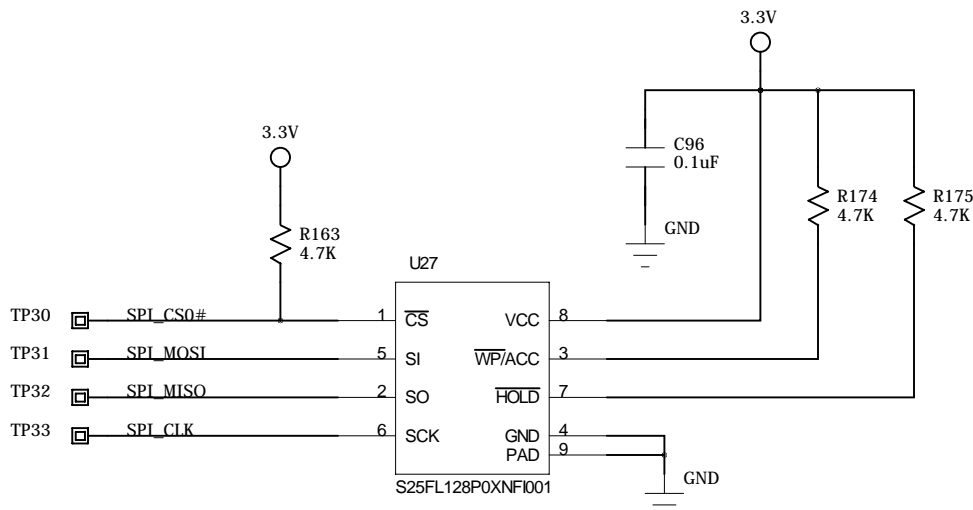
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P1021_SPI_I2C

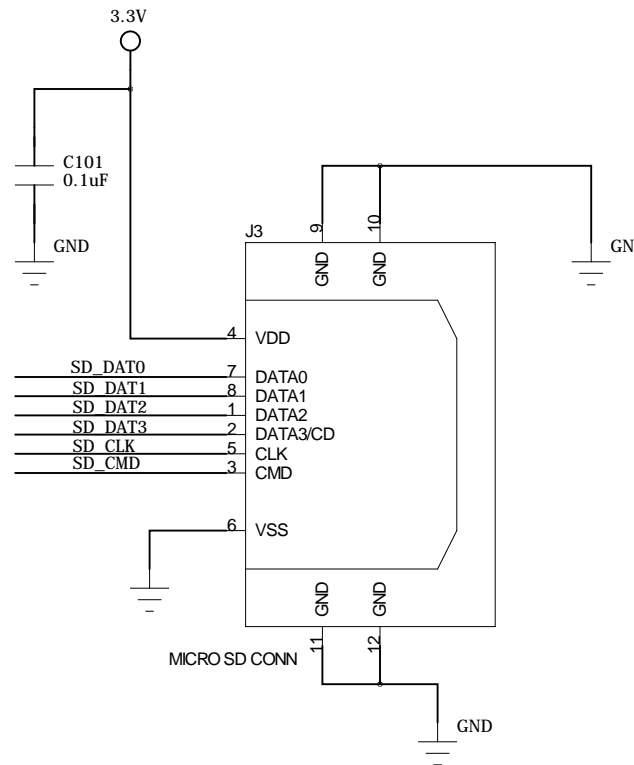


P1021

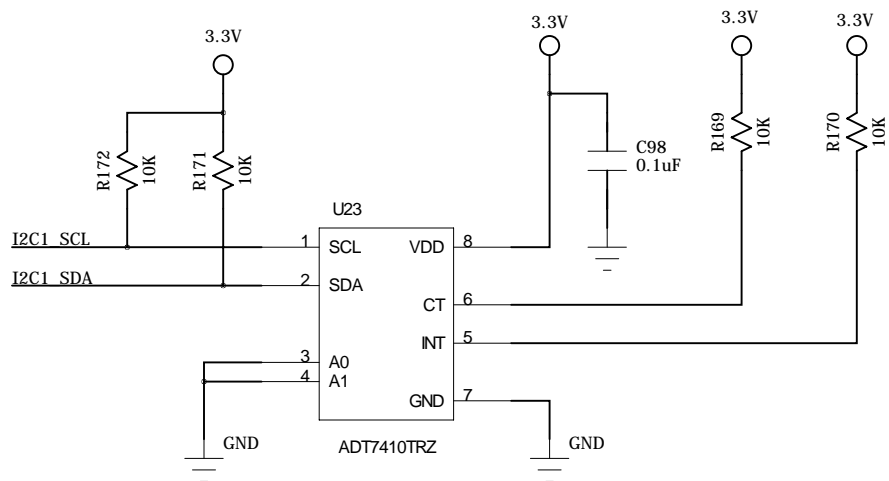
SPI FLASH : 128MBIT



SD CARD SOCKET

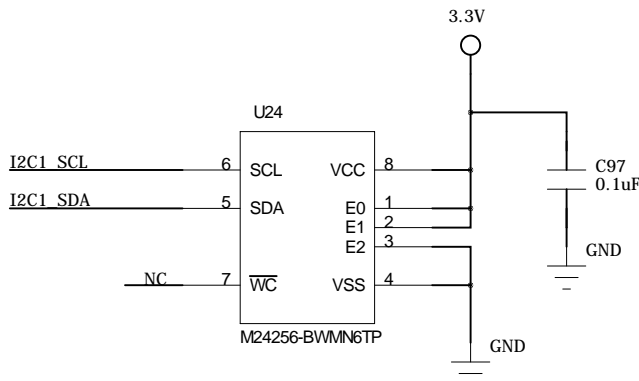


TEMPERATURE SENSOR



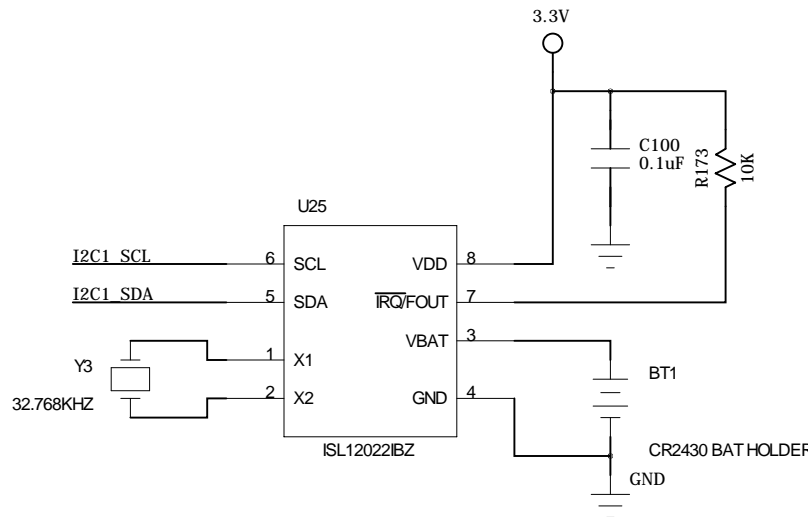
TEMPERATURE SENSOR I2C ADDRESS: 0x48

BOOT EEPROM : 256KBIT



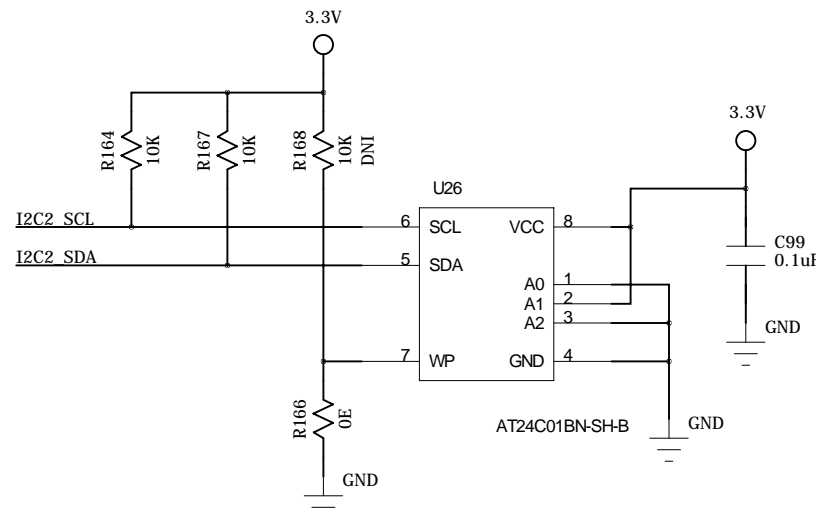
BOOT EEPROM I2C ADDRESS: 0x50

RTC



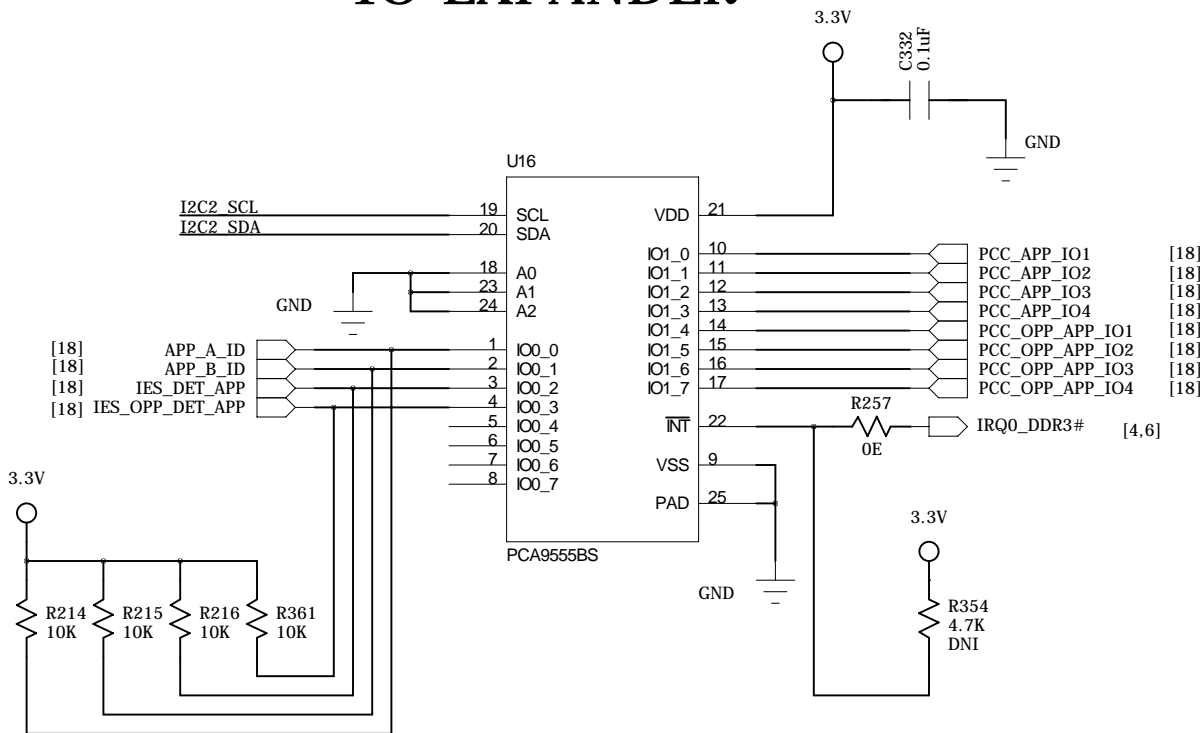
RTC I2C ADDRES: 0x68

BOARD EEPROM : 1KBIT

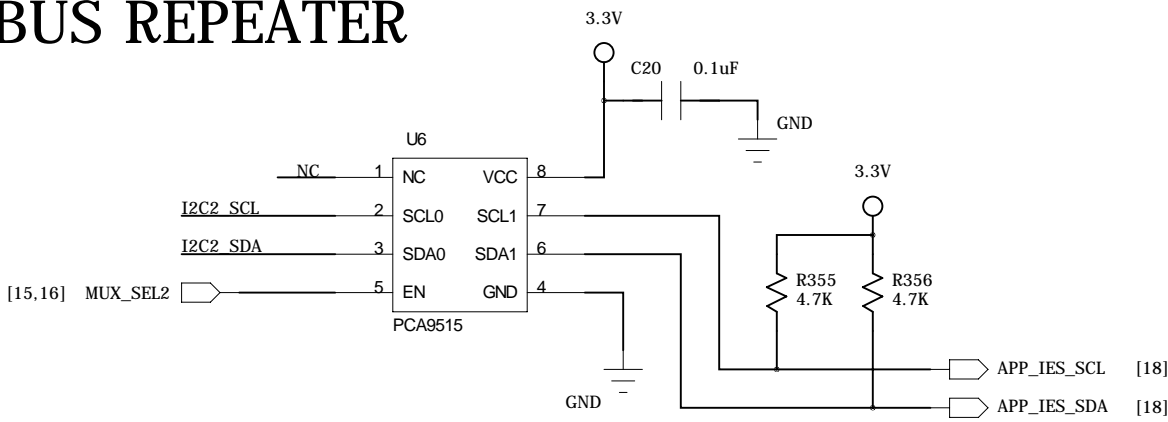


BOARD EEPROM I2C ADDRESS: 0x52

IO EXPANDER



I2C BUS REPEATER

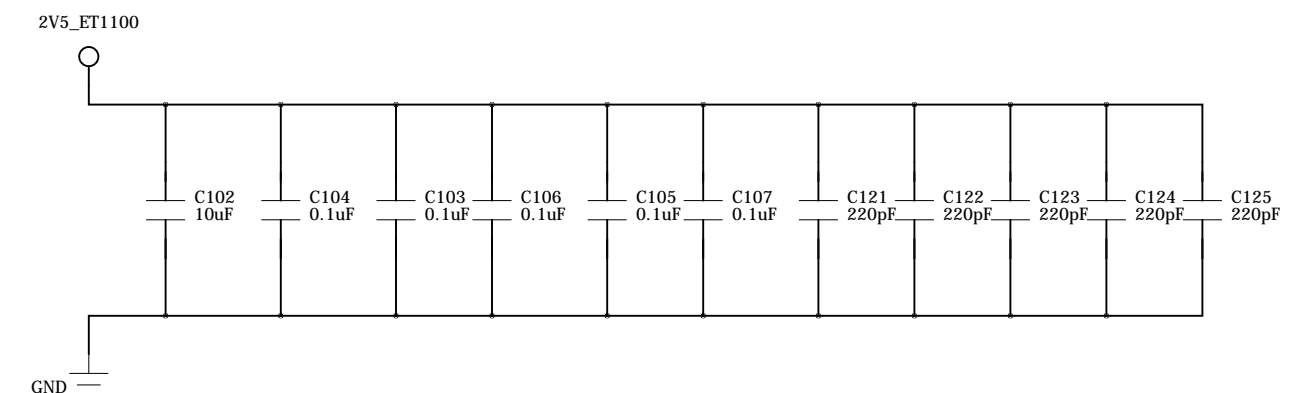
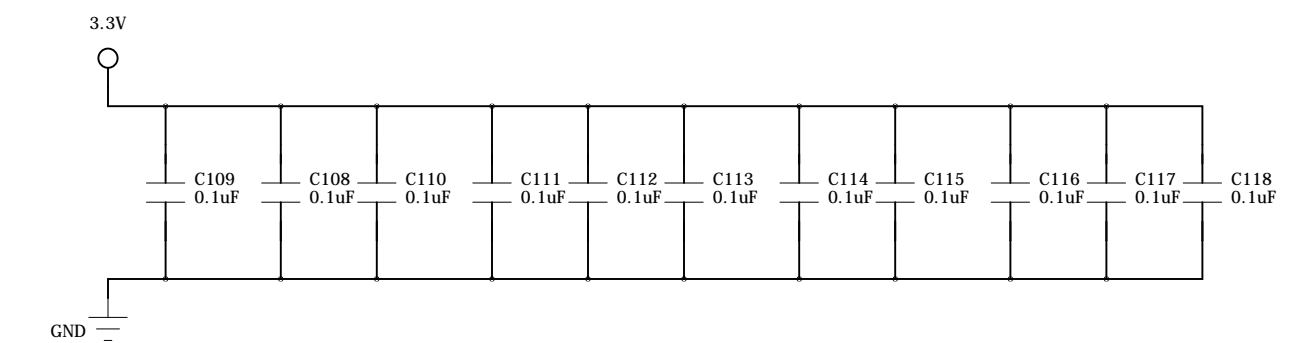
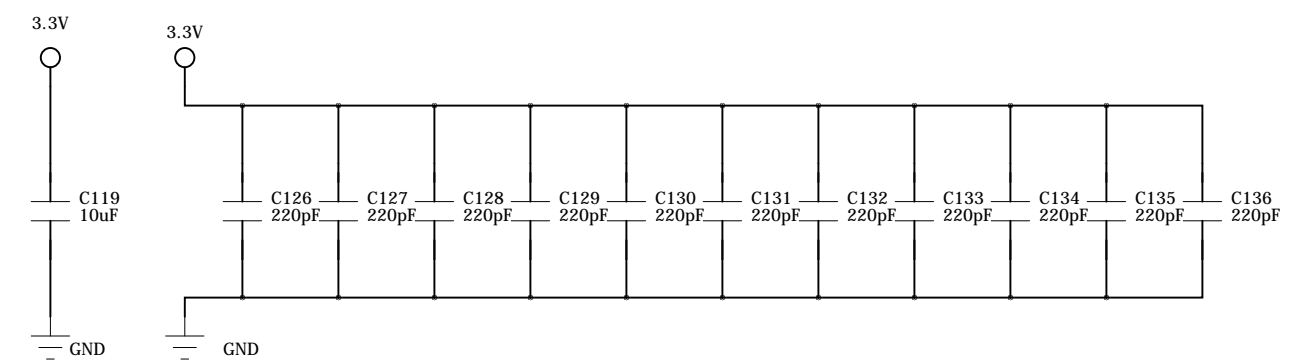
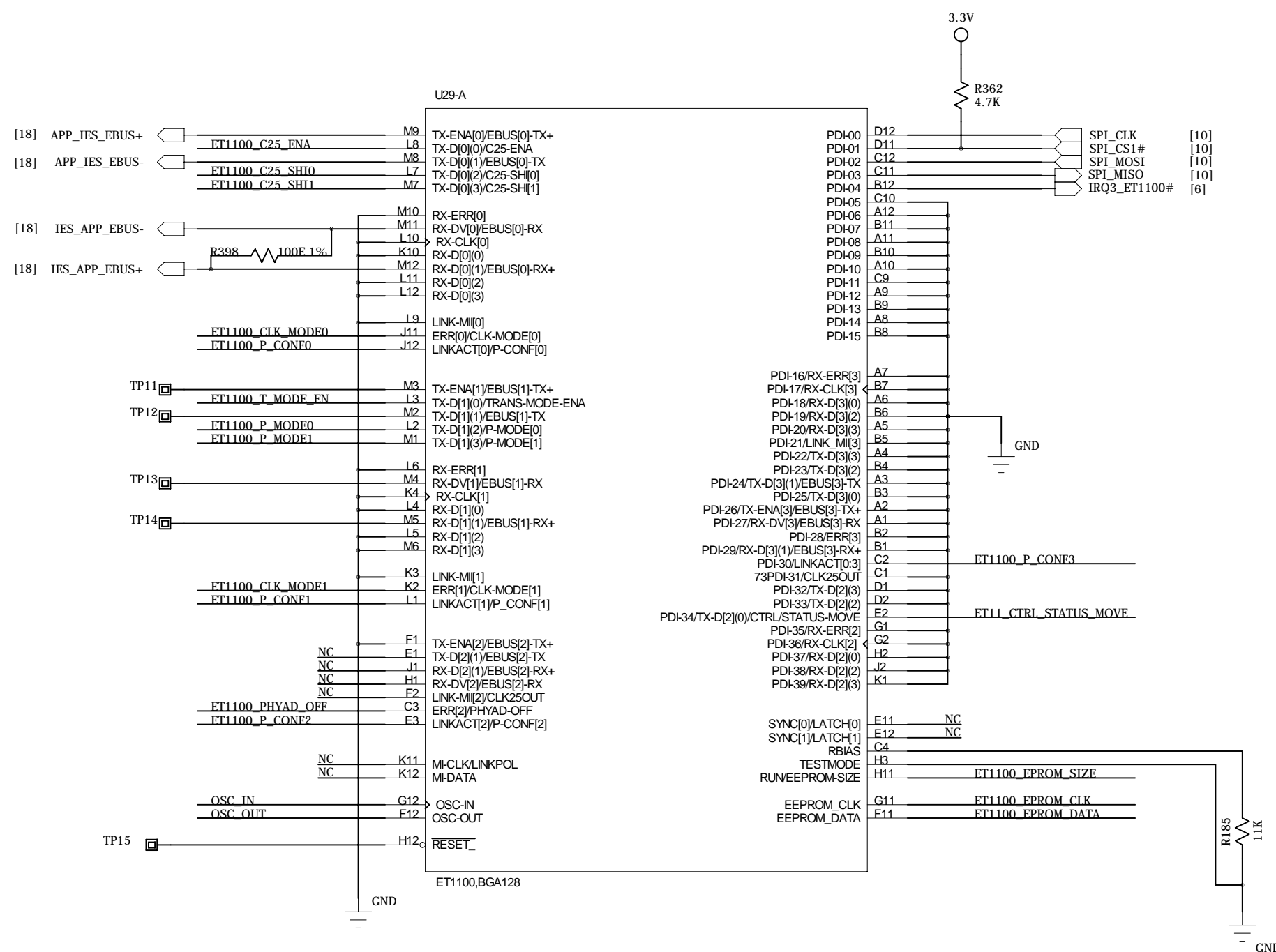


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ENGINEER			SIZE	DWG. NO.	PROD REV.
			C	18-600400-001	2.0
			FILE	APP CARD SCHEMATIC	SCALE

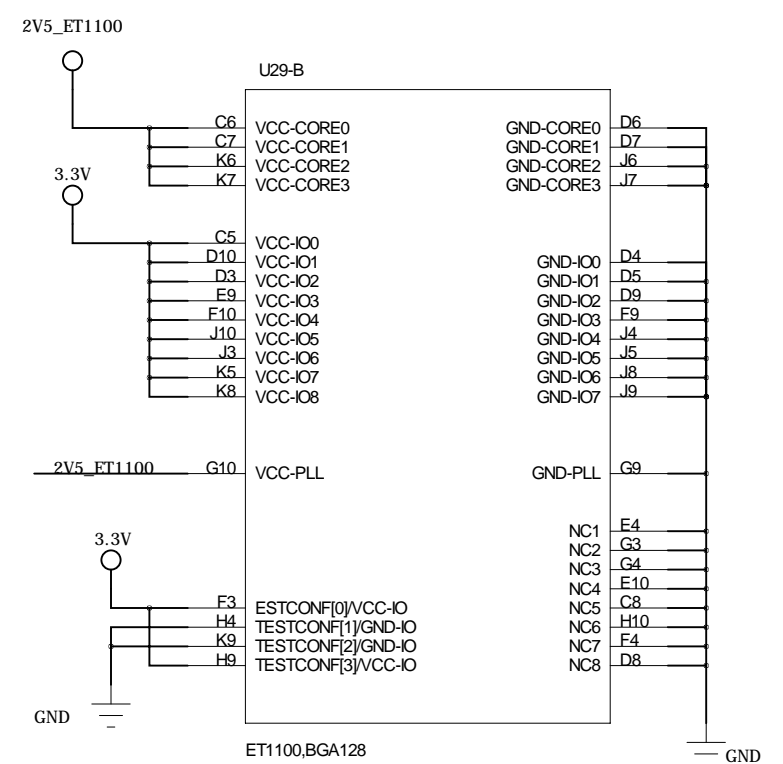
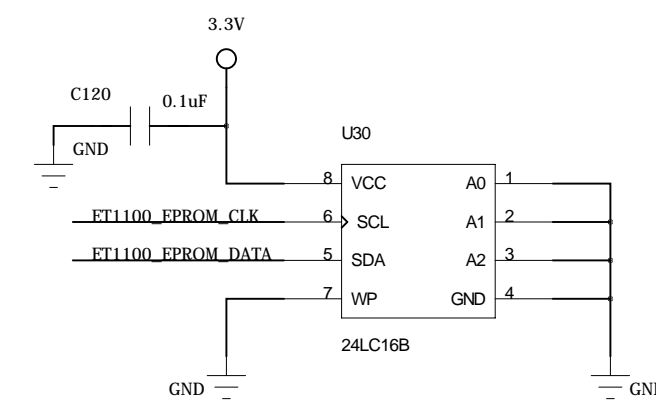
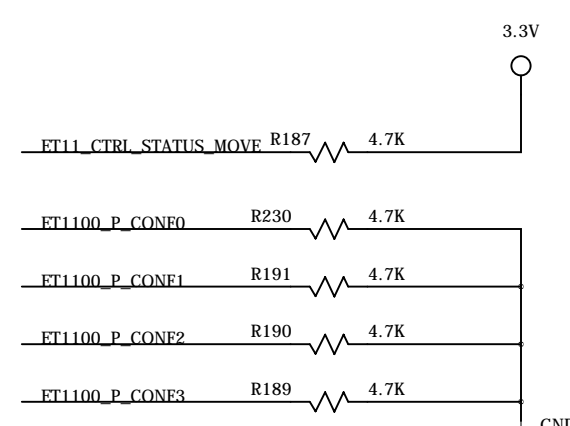
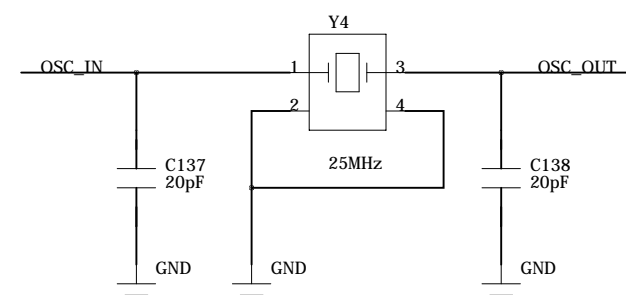
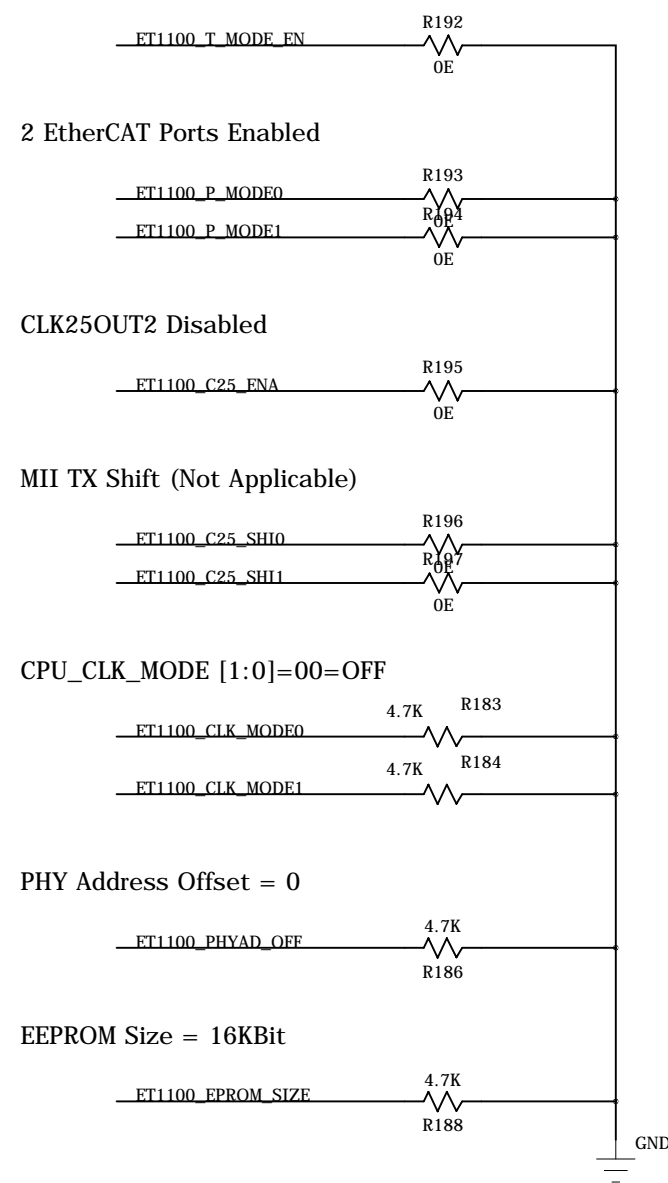
ET1100 : IES CARD

DWG. NO.

SH	REV.
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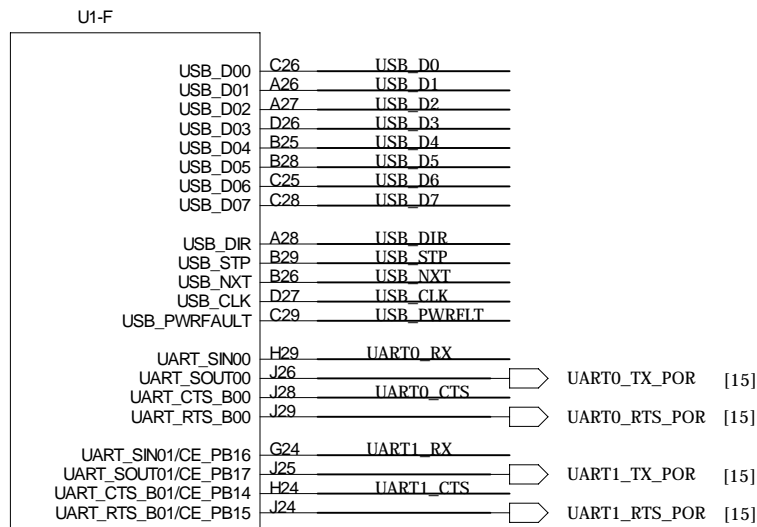
APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION			
DRAWN AKHILESH JAISWAL		14-SEP-2011		4725 121st Street - Des Moines, Iowa 50323			
CHECKED							
ENGINEER				SIZE C	DWG. NO. 18-600400-001	SHEET 11	PROD REV. 2.0
				FILE APP CARD SCHEMATIC	SCALE		

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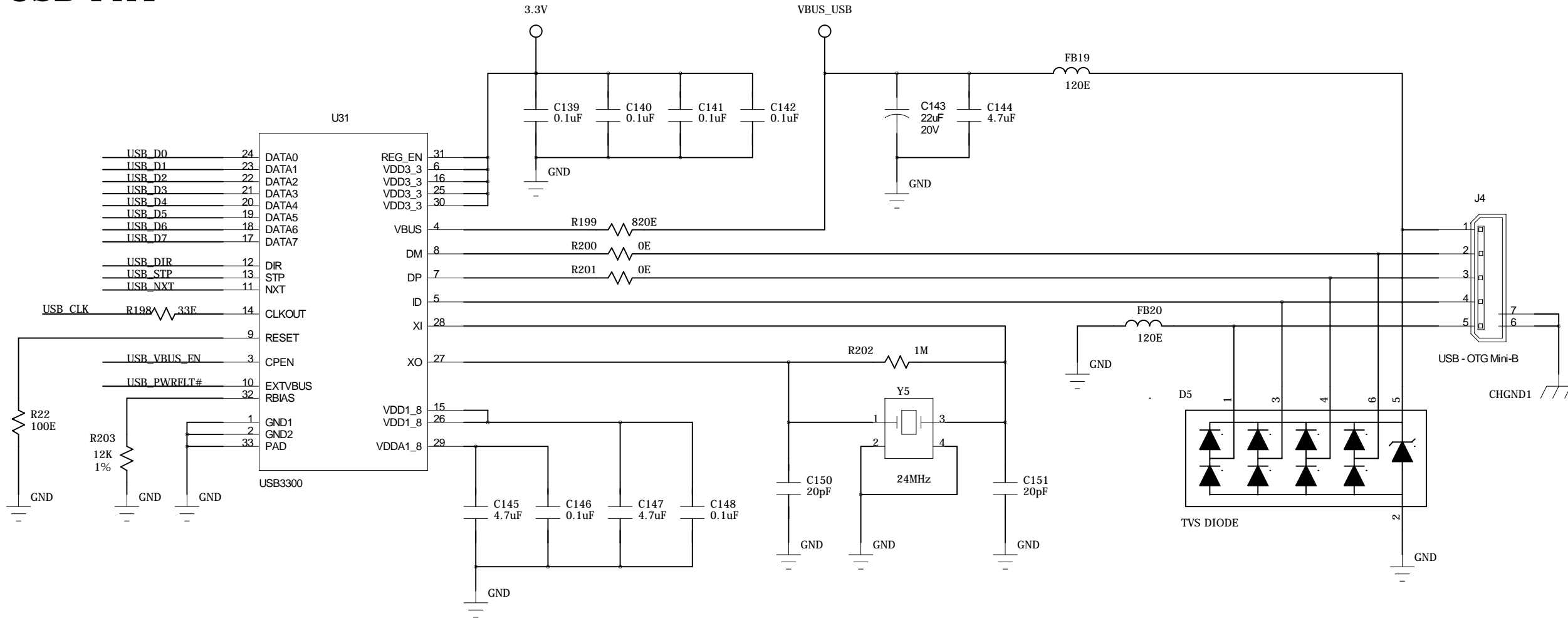
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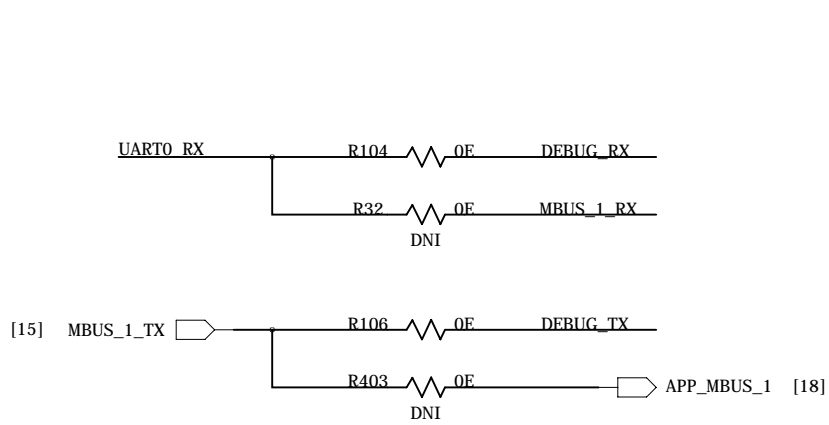
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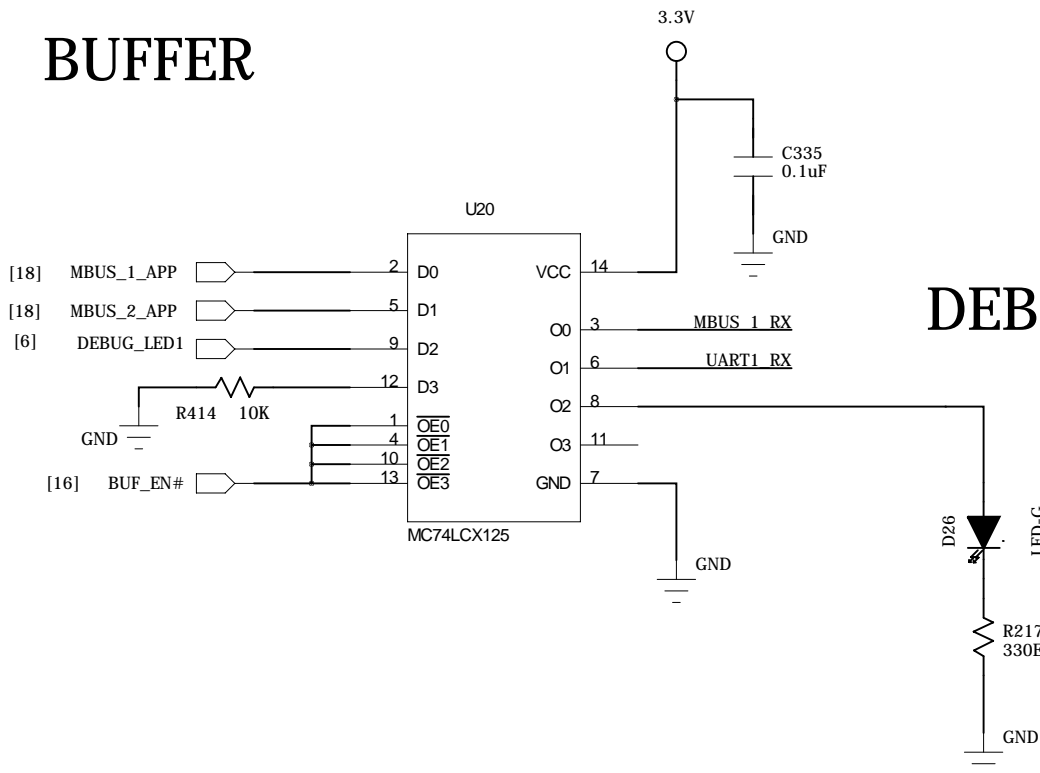
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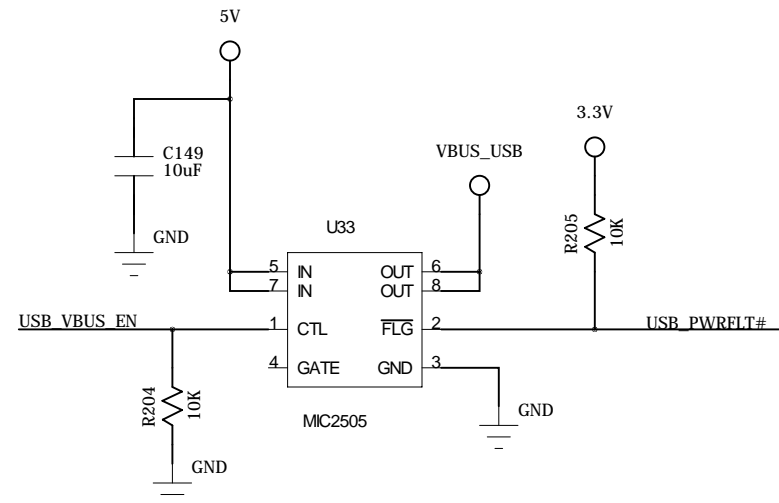
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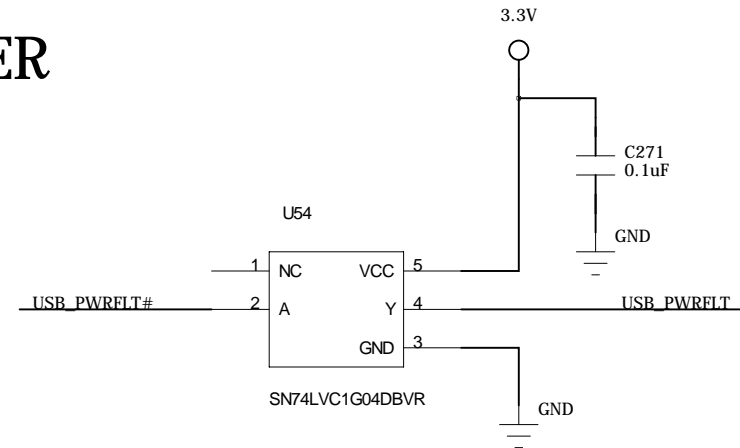
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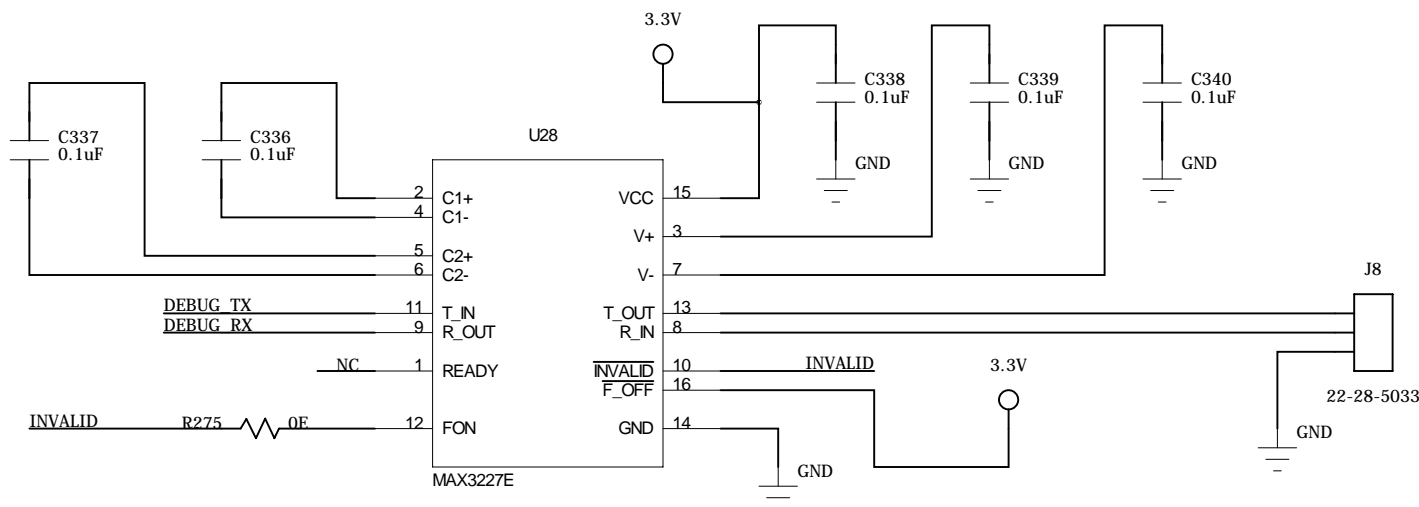
POWER SWITCH



INVERTER



DEBUG SERIAL PORT



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ENGINEER			SIZE	DWG. NO. 18-600400-001	SHEET 12
			FILE	APP CARD SCHEMATIC	SCALE
					PROD REV. 2.0

APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION 4725 121st Street - Des Moines, Iowa 50323			
DRAWN AKHILESH JAISWAL		14-SEP-2011					
CHECKED							
ENGINEER				SIZE C	DWG. NO. 18-600400-001 FILE APP CARD SCHEMATIC	SHEET 13 SCALE	PROD REV. 2.0

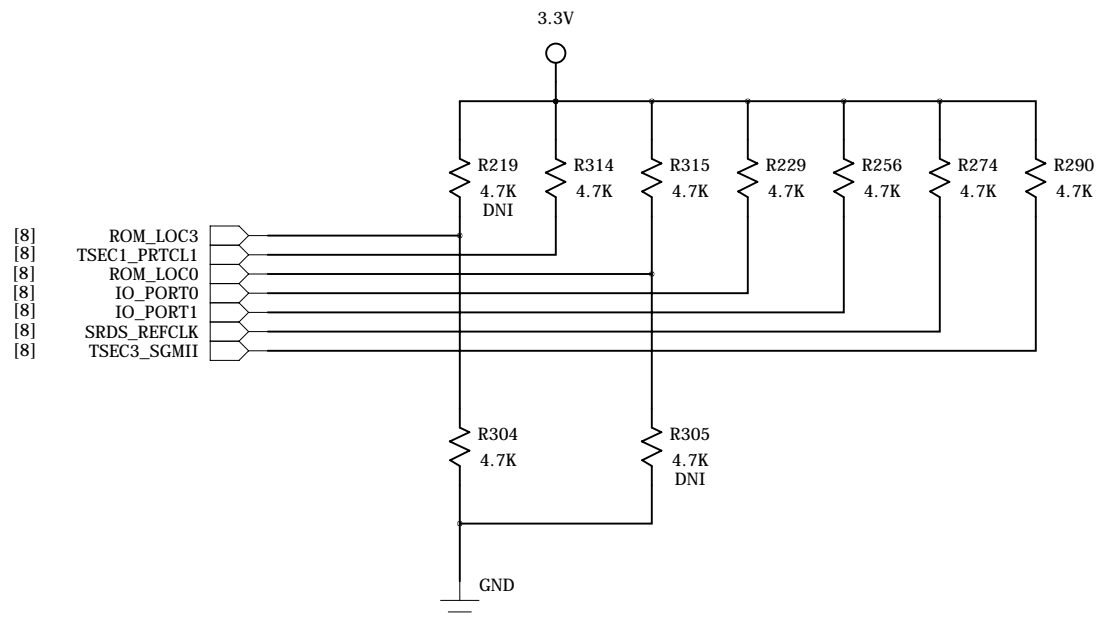
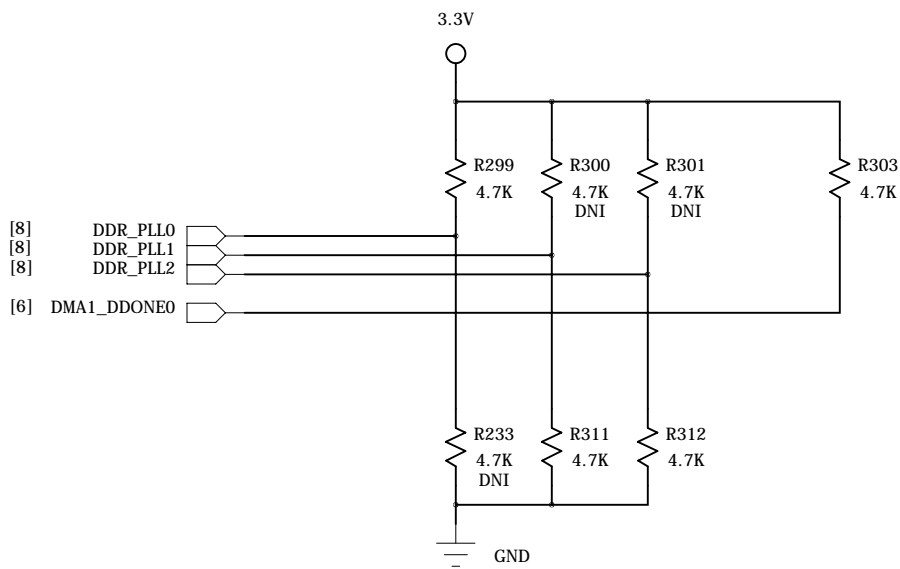
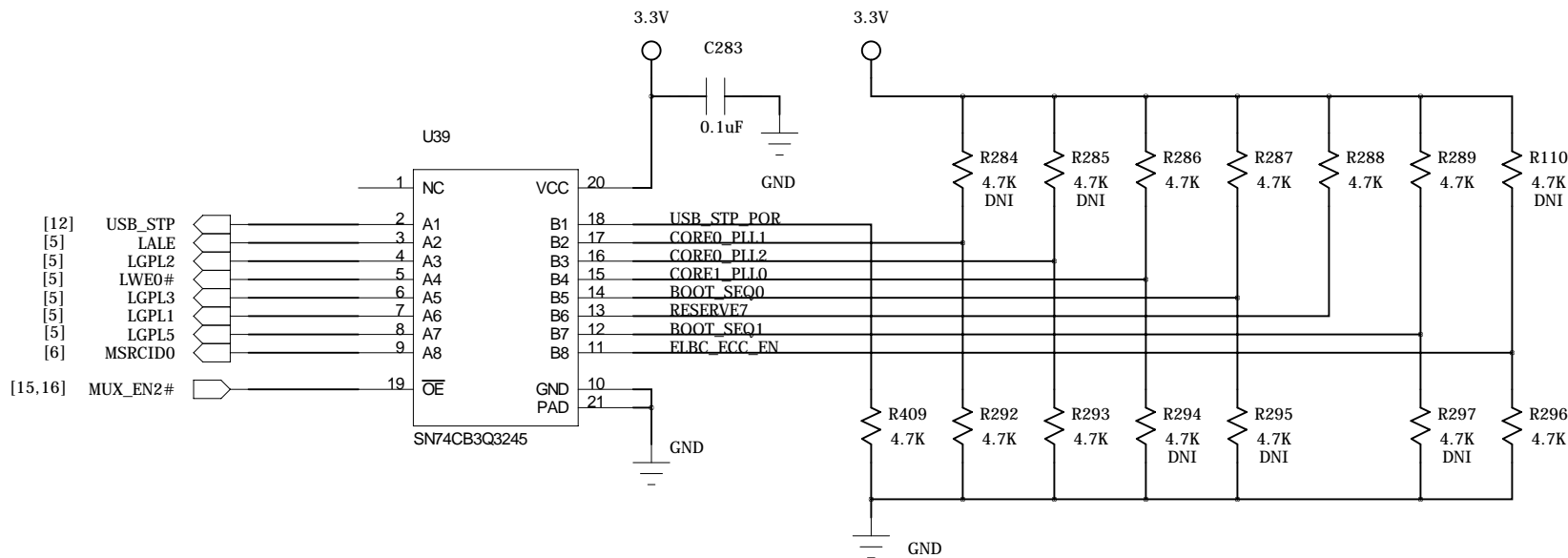
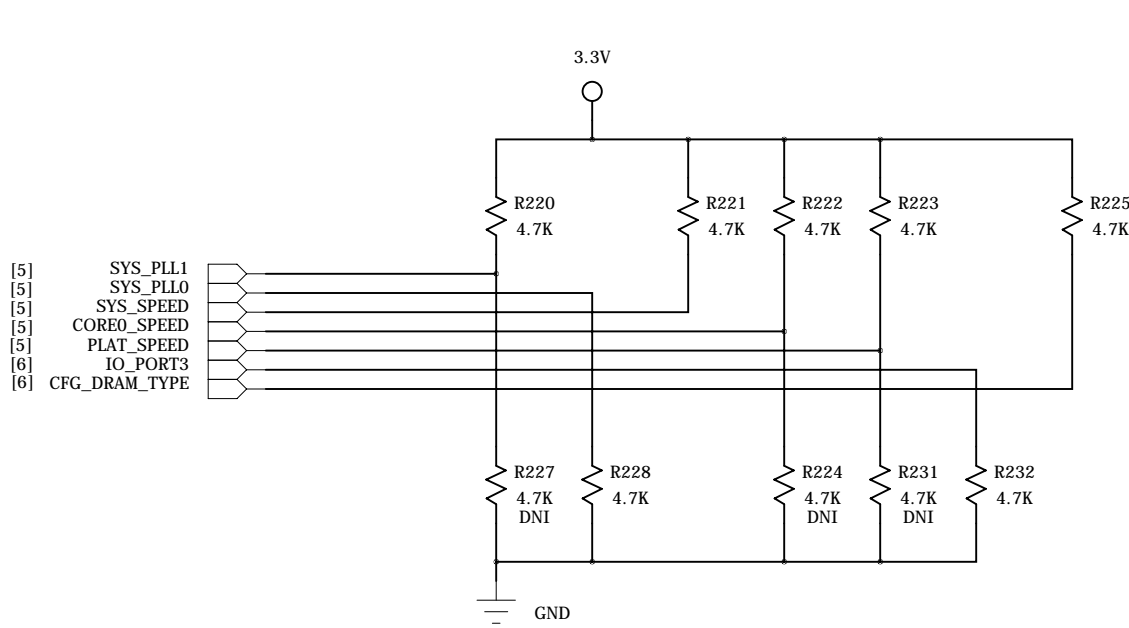
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POR STRAPPING



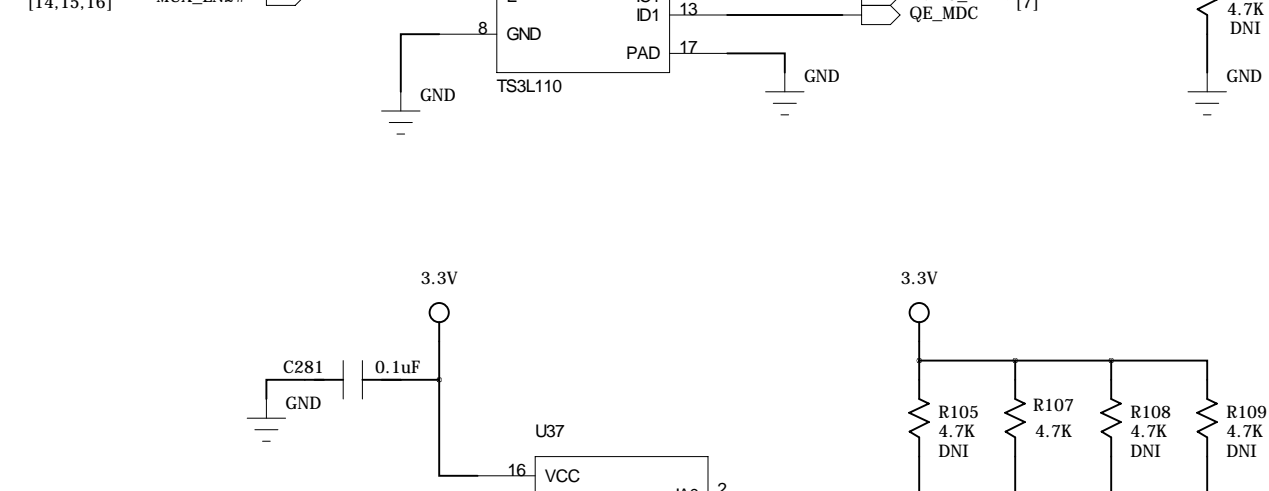
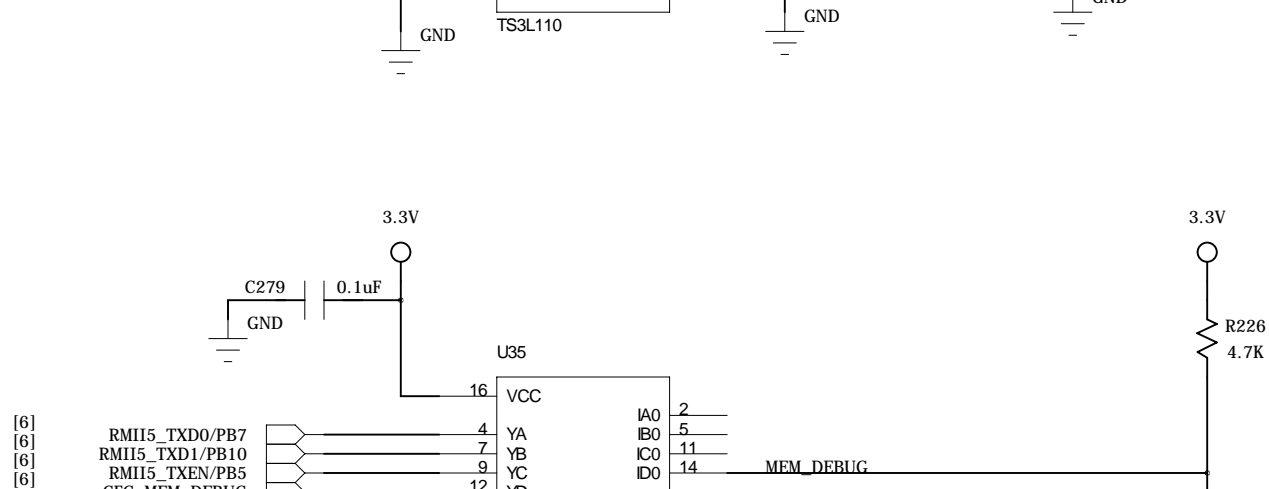
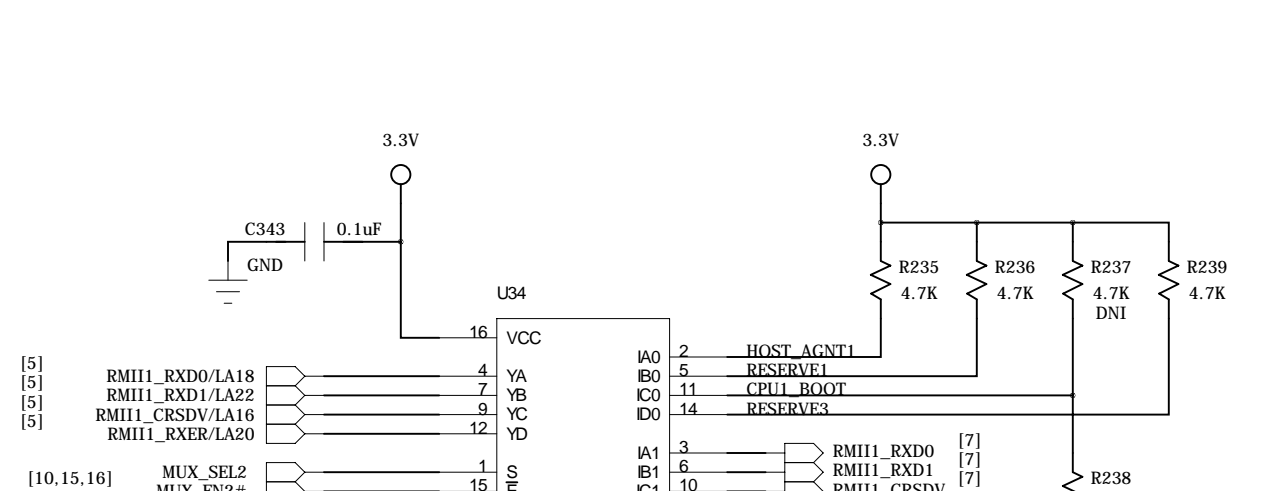
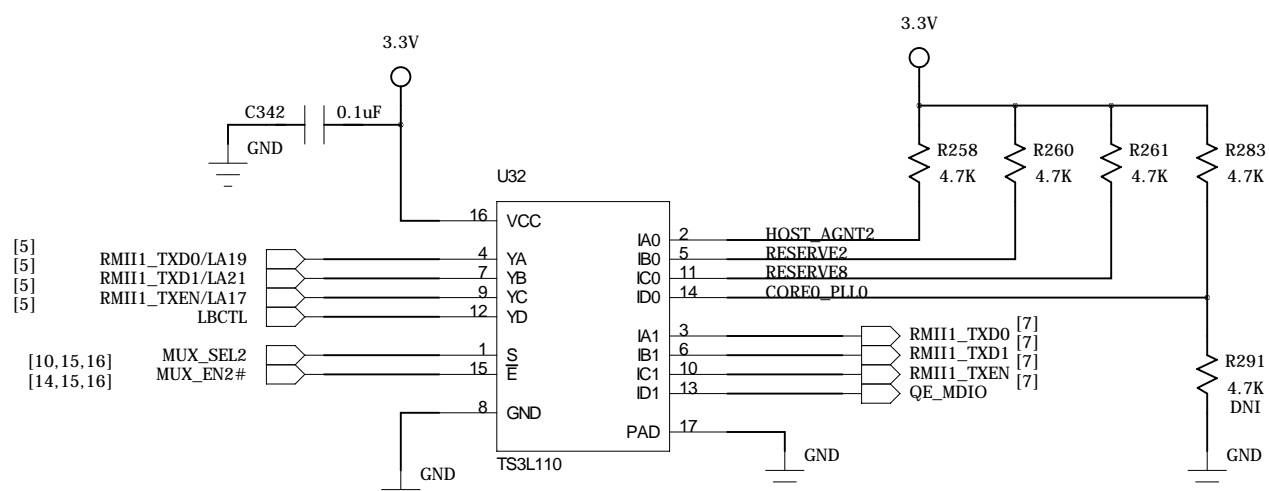
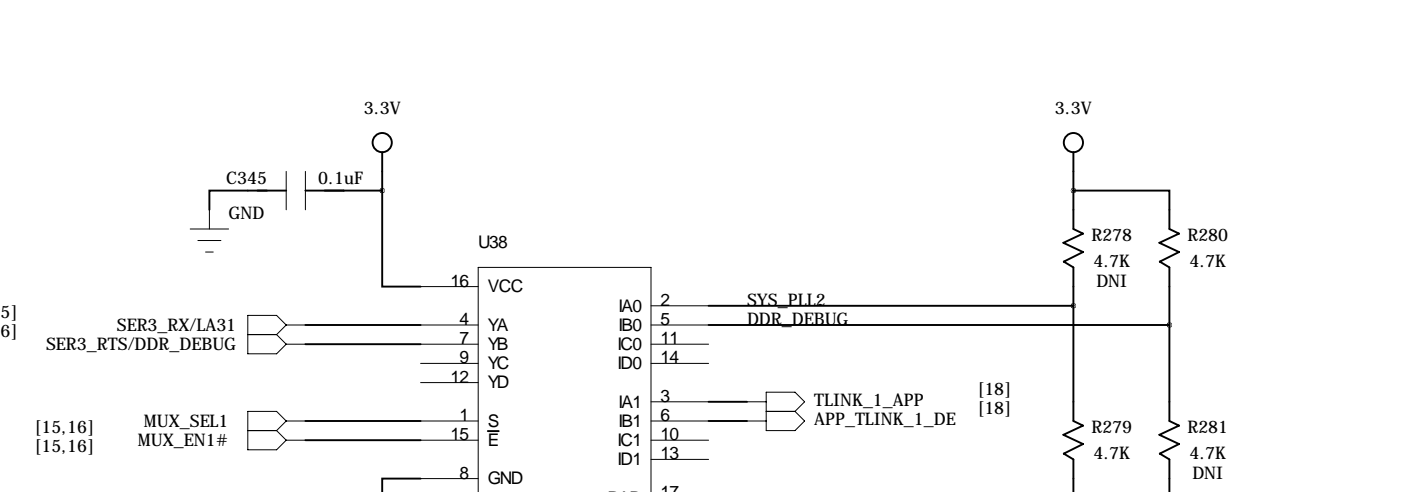
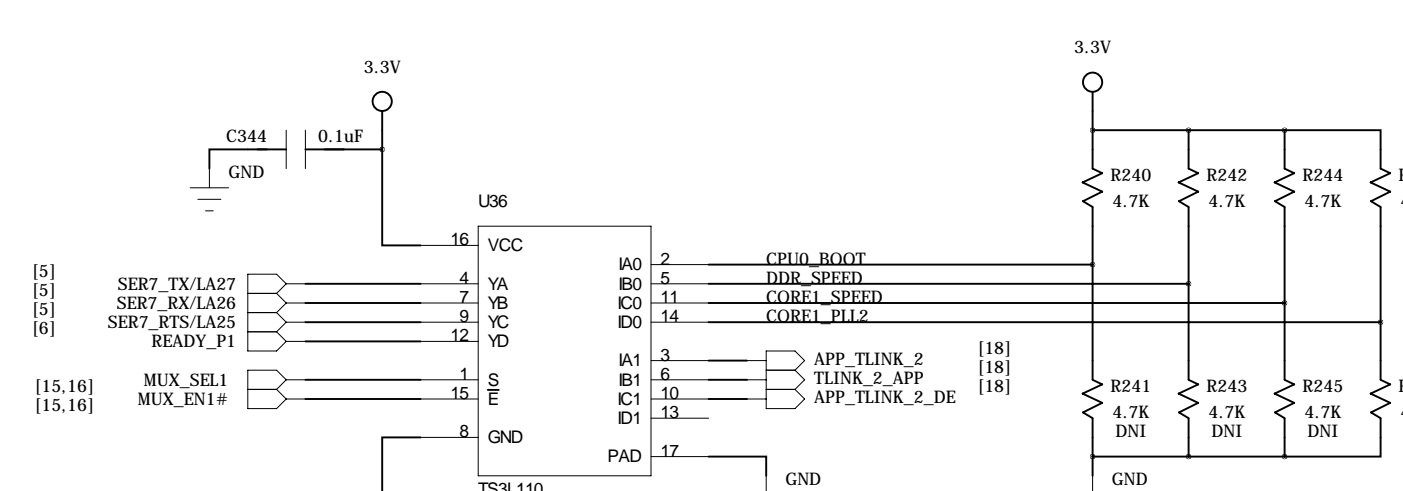
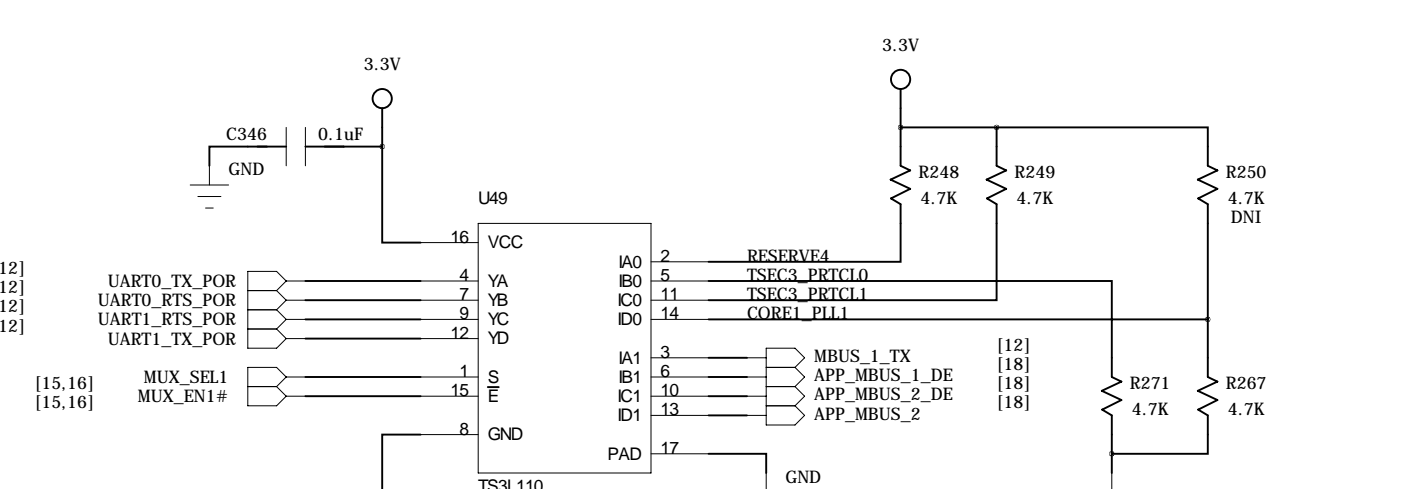
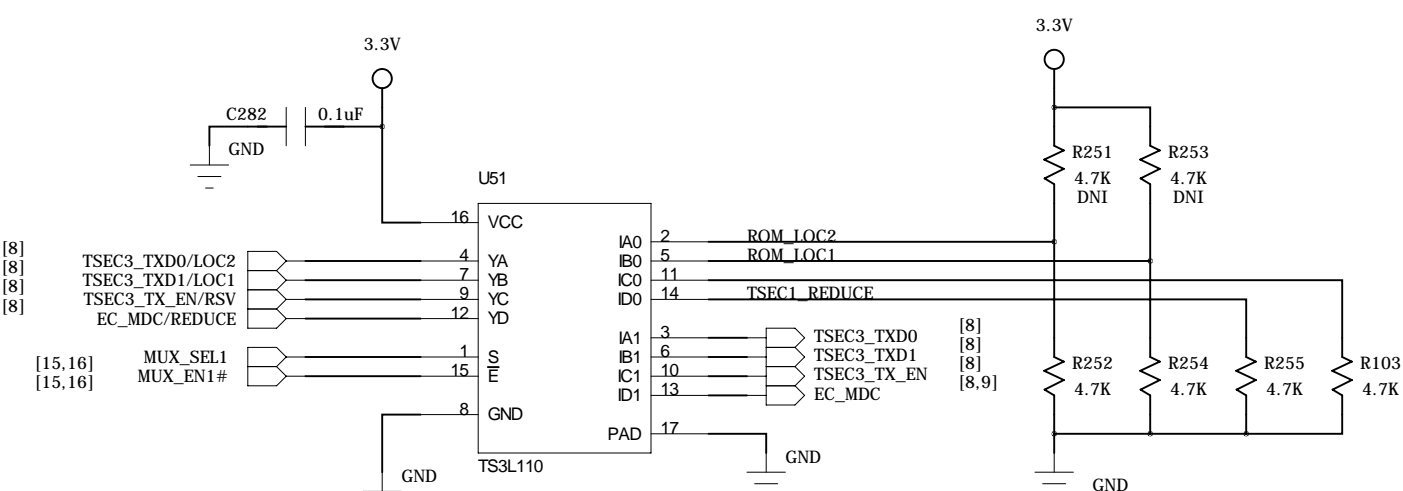
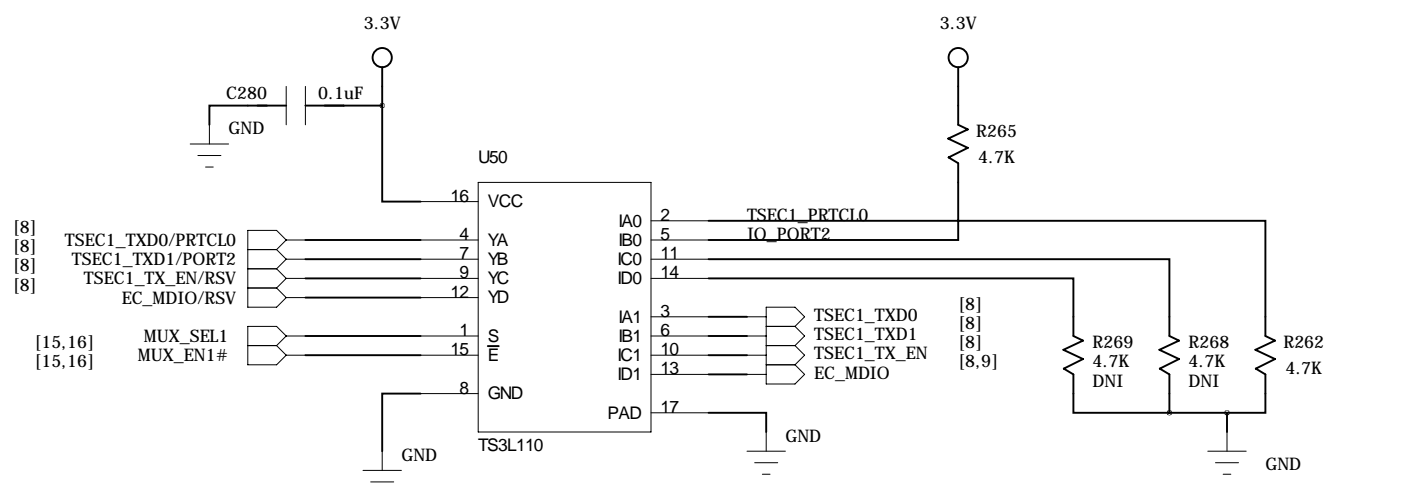
APPROVALS		DATE	COMPRESSOR CONTROLS CORPORATION			
DRAWN	AKHILESH JAISWAL	14-SEP-2011	4725 121st Street - Des Moines, Iowa 50323			
CHECKED						
ENGINEER			SIZE	DWG. NO.	SHEET	PROD REV.
			C	18-600400-001	14	2.0
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APPROVALS

DATE

COMPRESSOR CONTROLS CORPORATION

4725 121st Street - Des Moines, Iowa 50323

DRAWN

AKHILESH JAISWAL

14-SEP-2011

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SIZE

C

DWG. NO.

18-600400-001

FILE

APP CARD SCHEMATIC

SHEET

15

SCALE

PROD

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2.0

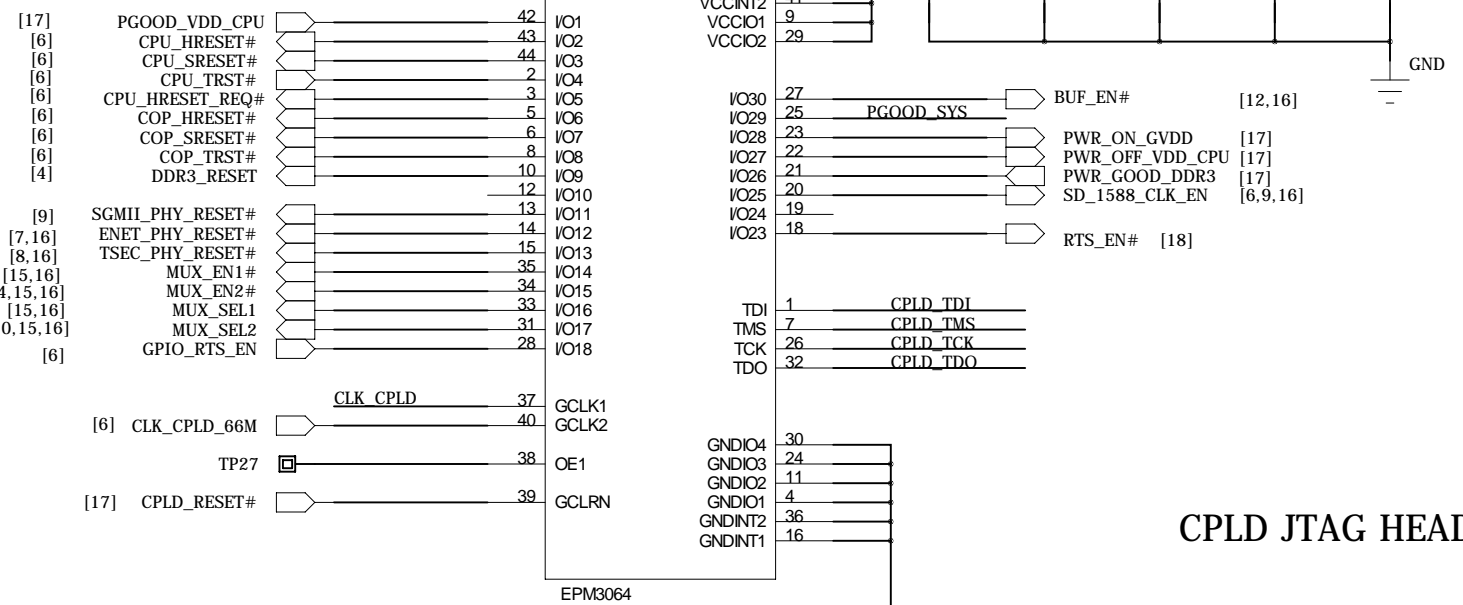
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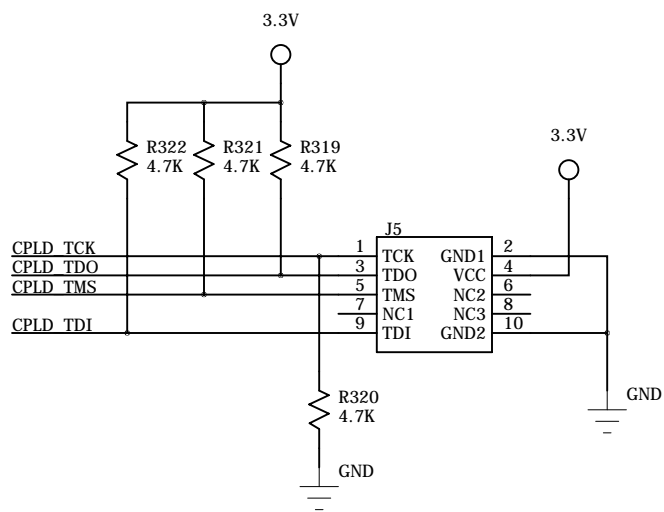
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REV.

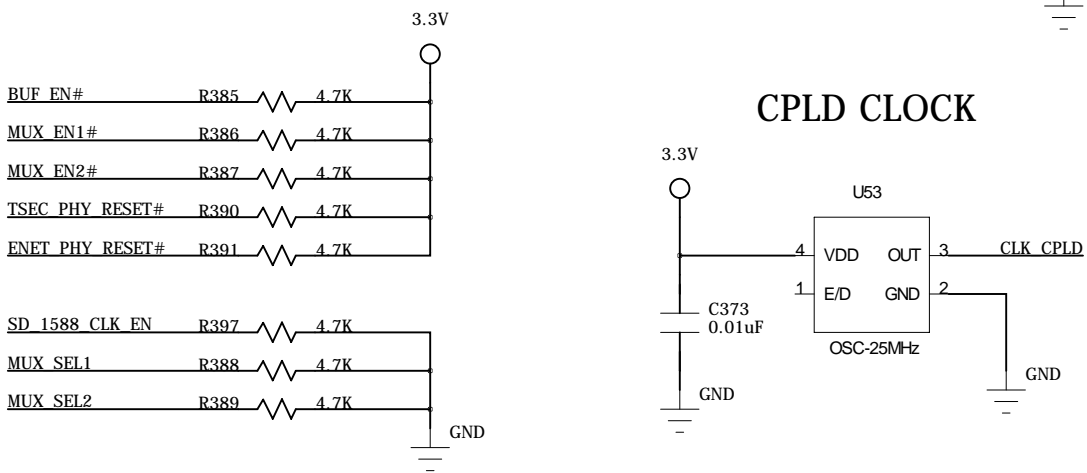
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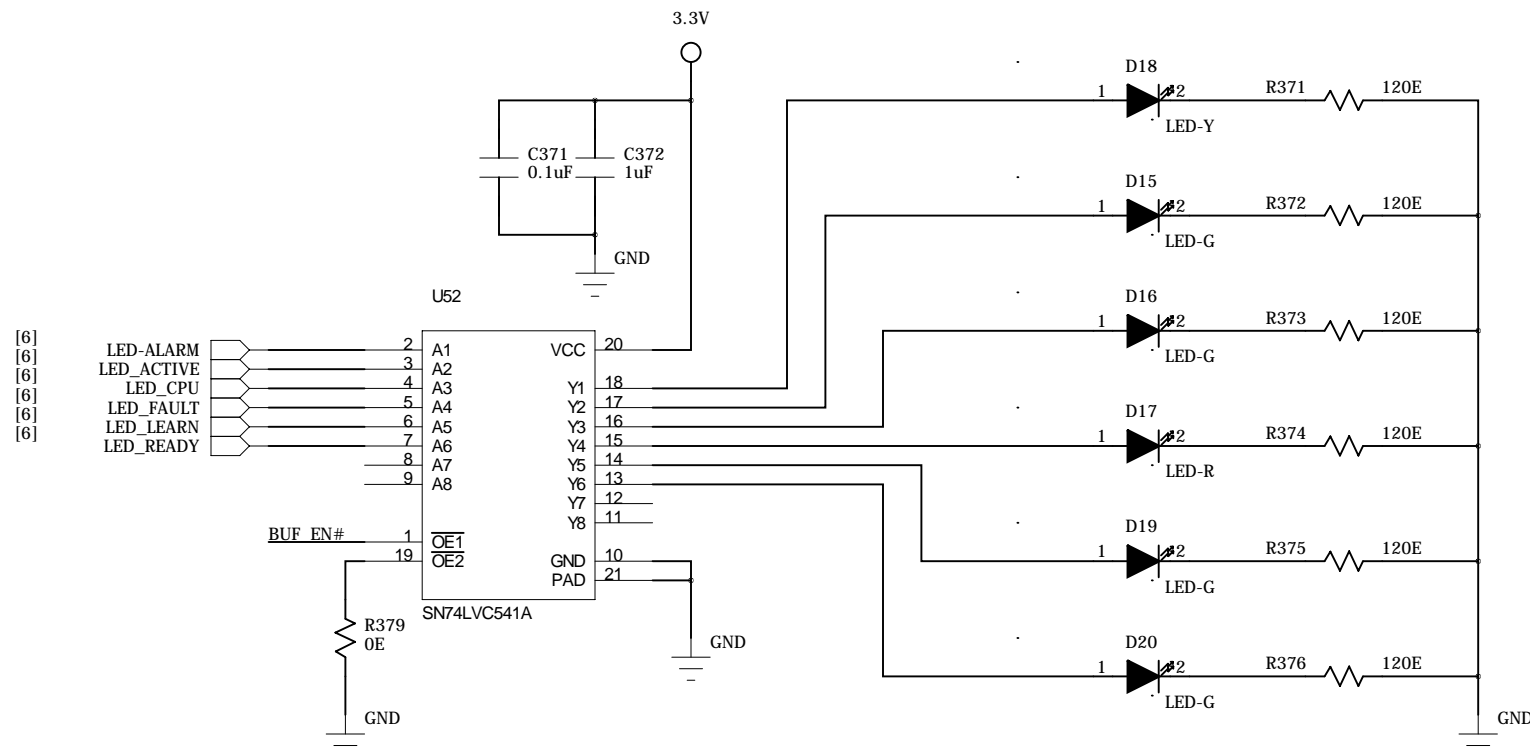
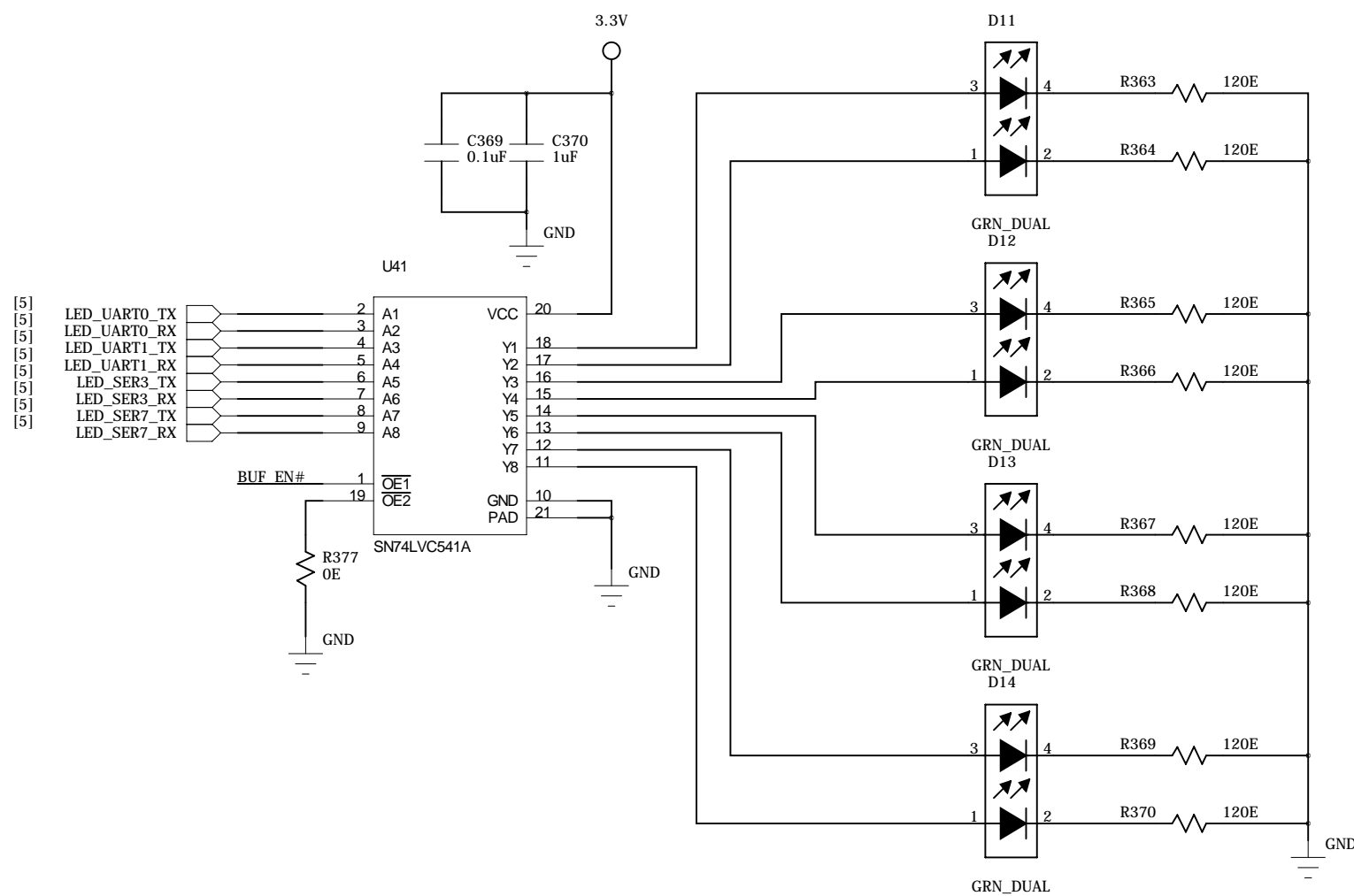
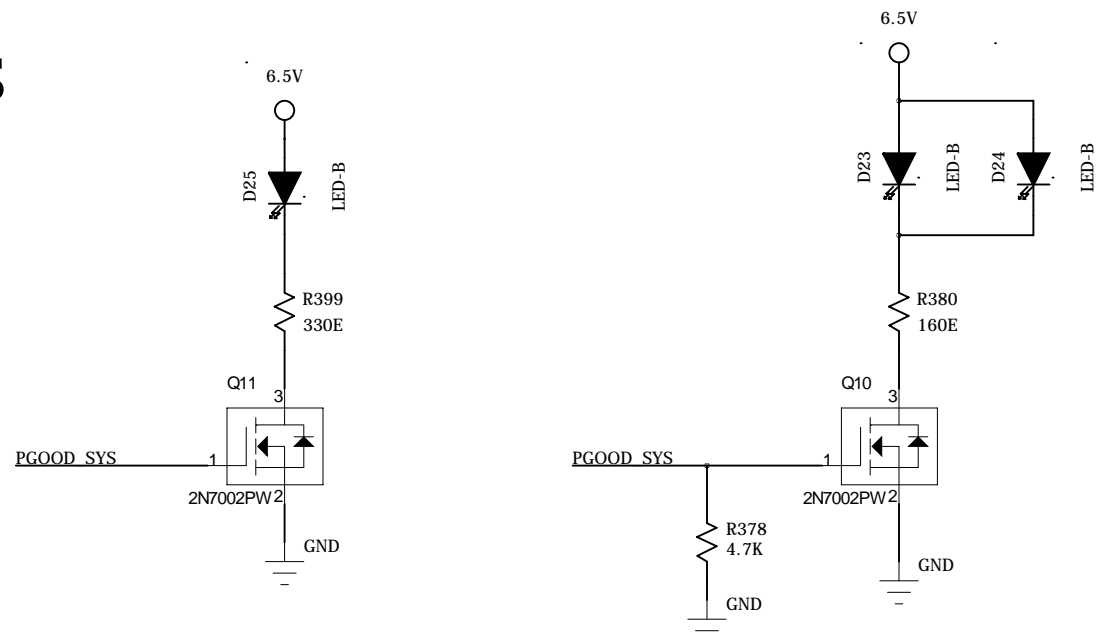
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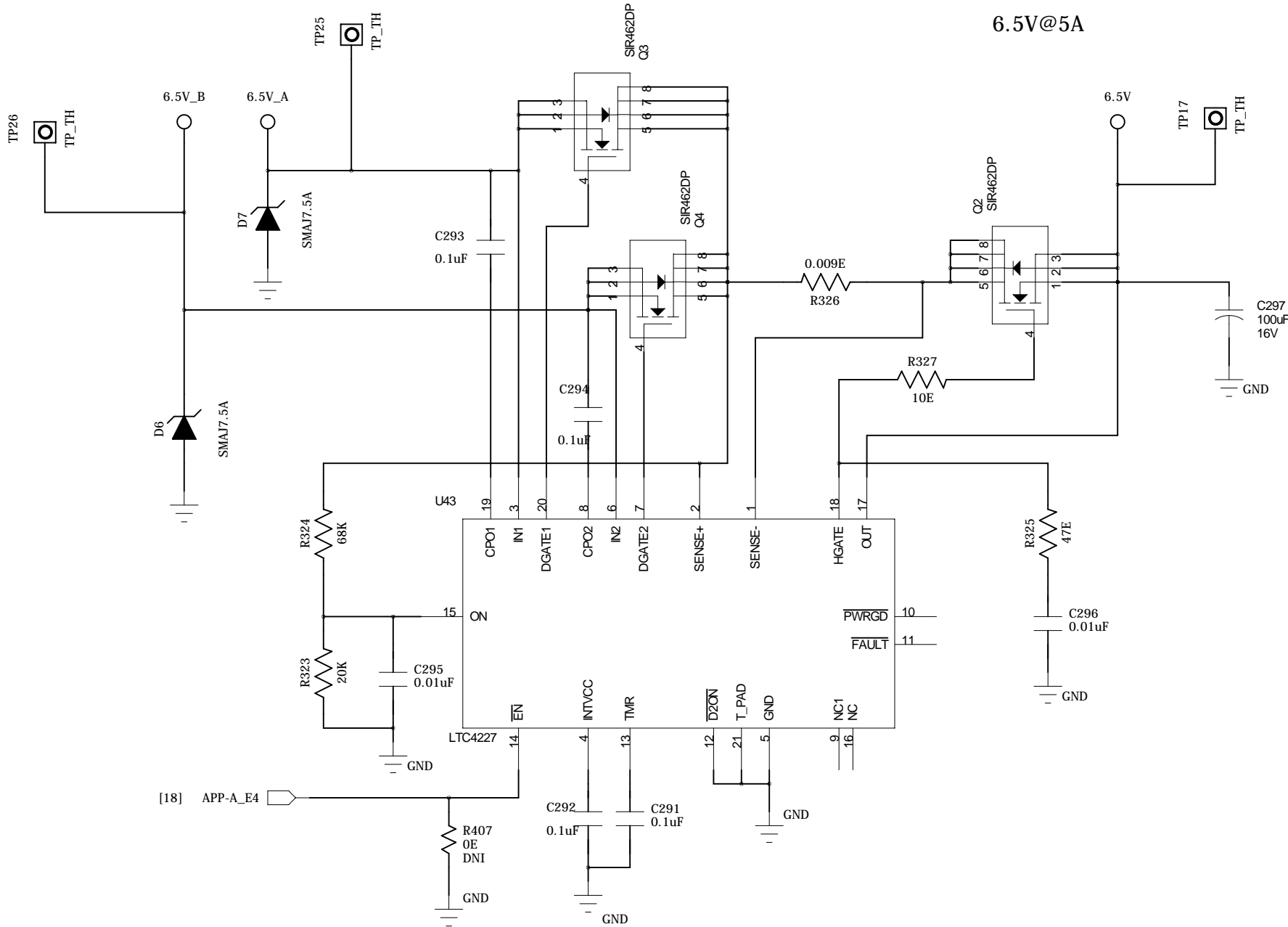
CPLD CLOCK



FRONT PANEL LEDS



HOT SWAP



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16

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2.0

FILE

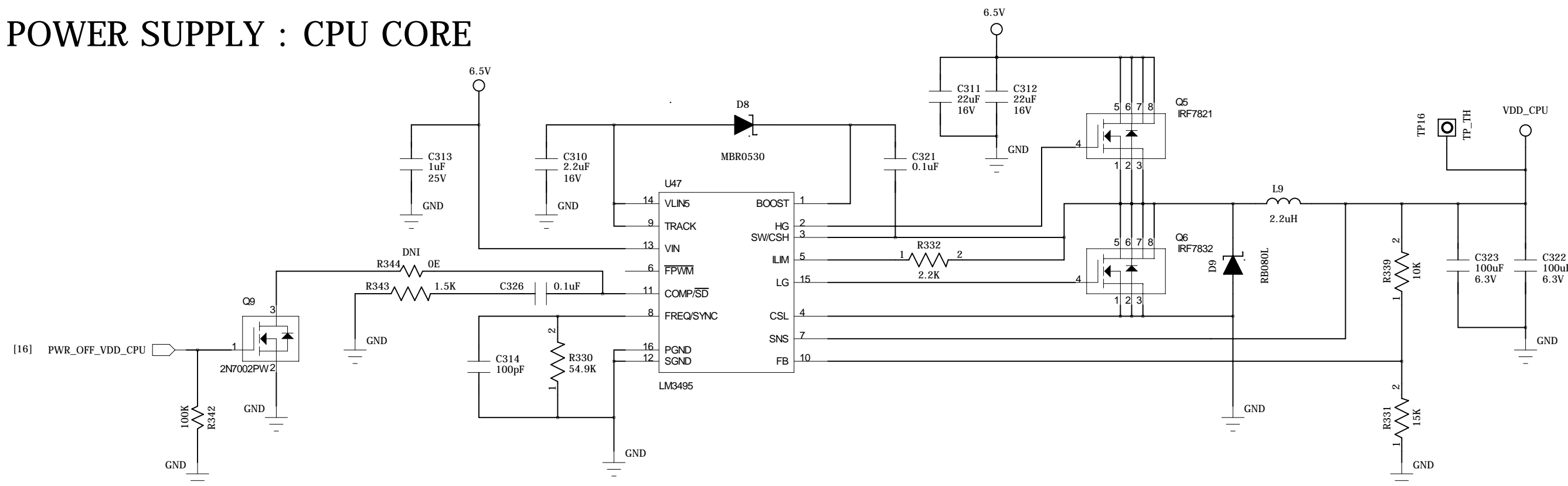
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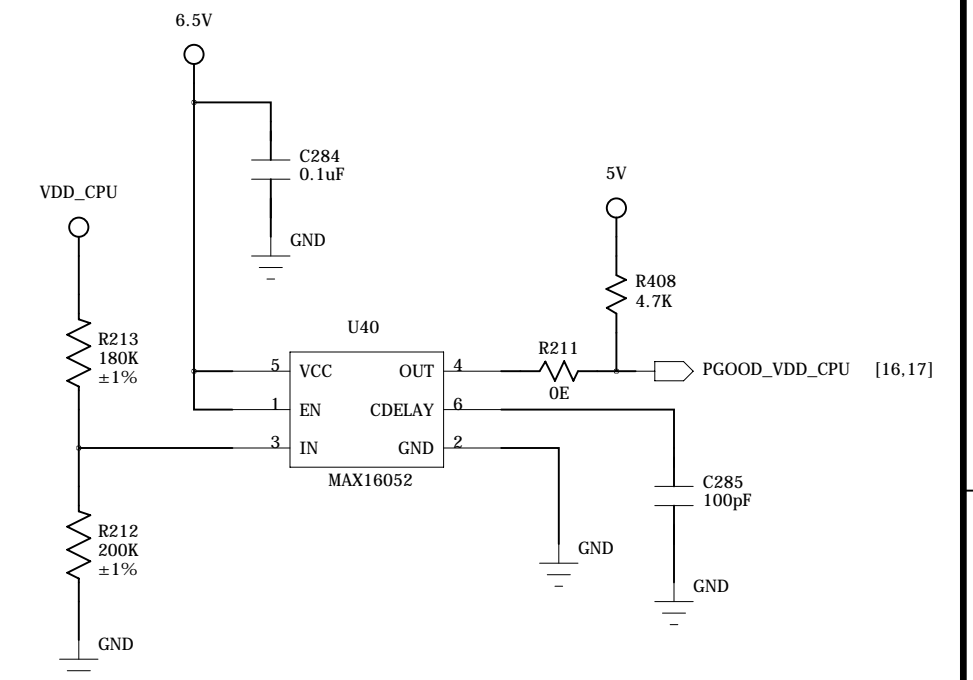
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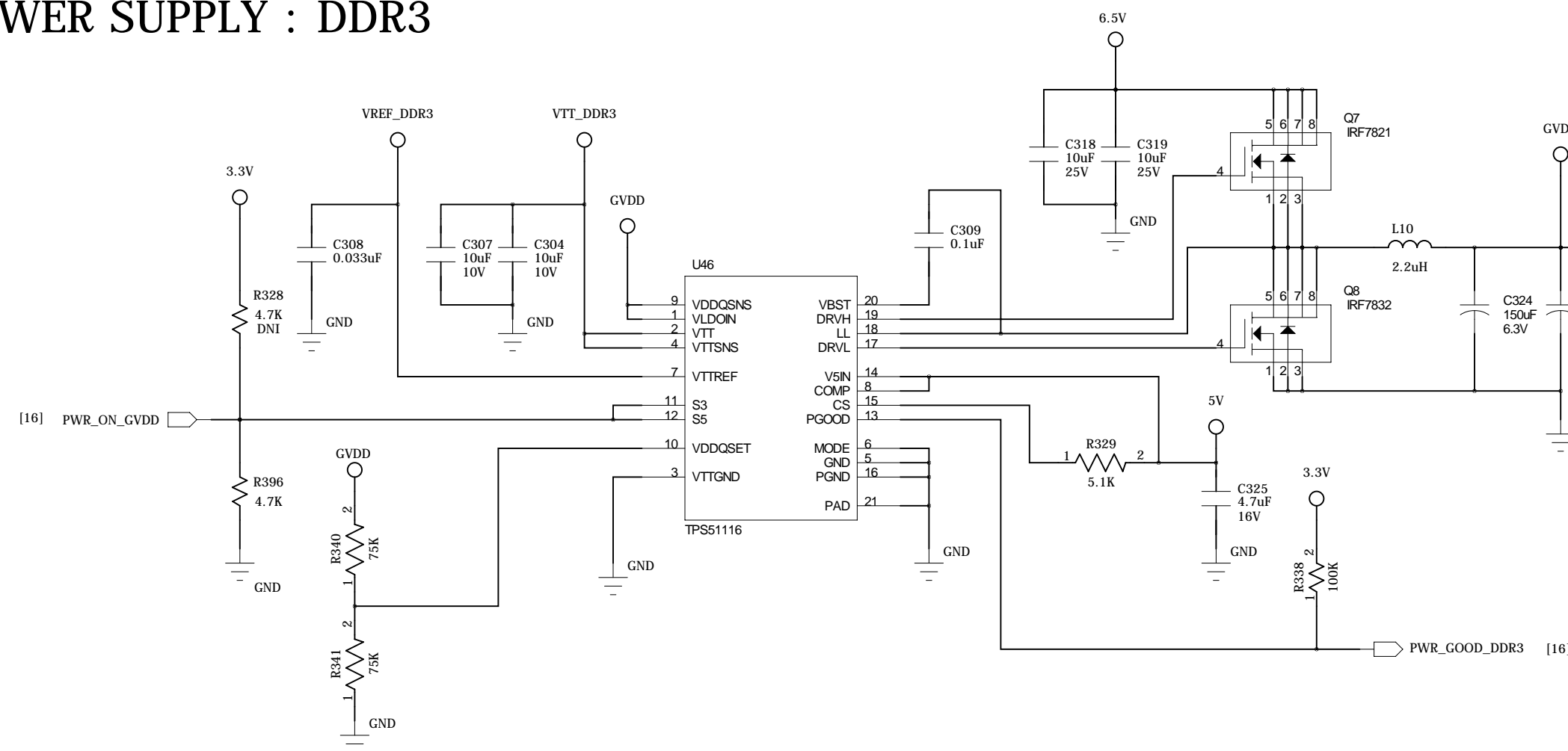
POWER SUPPLY : CPU CORE



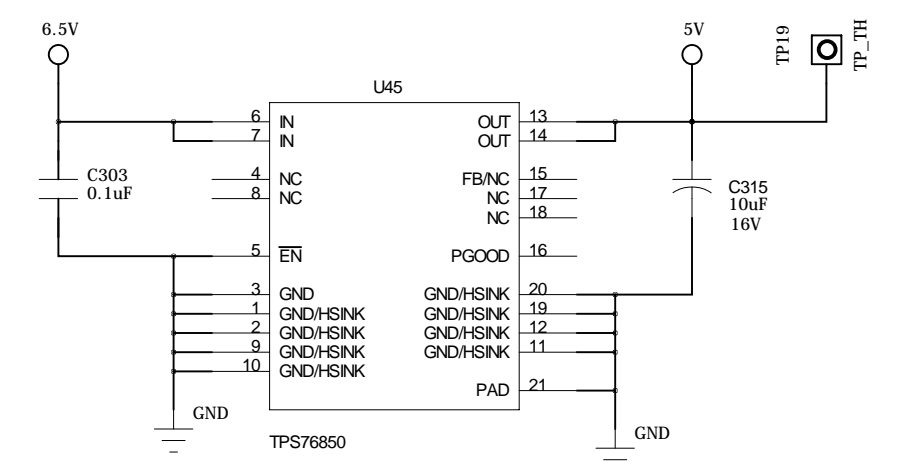
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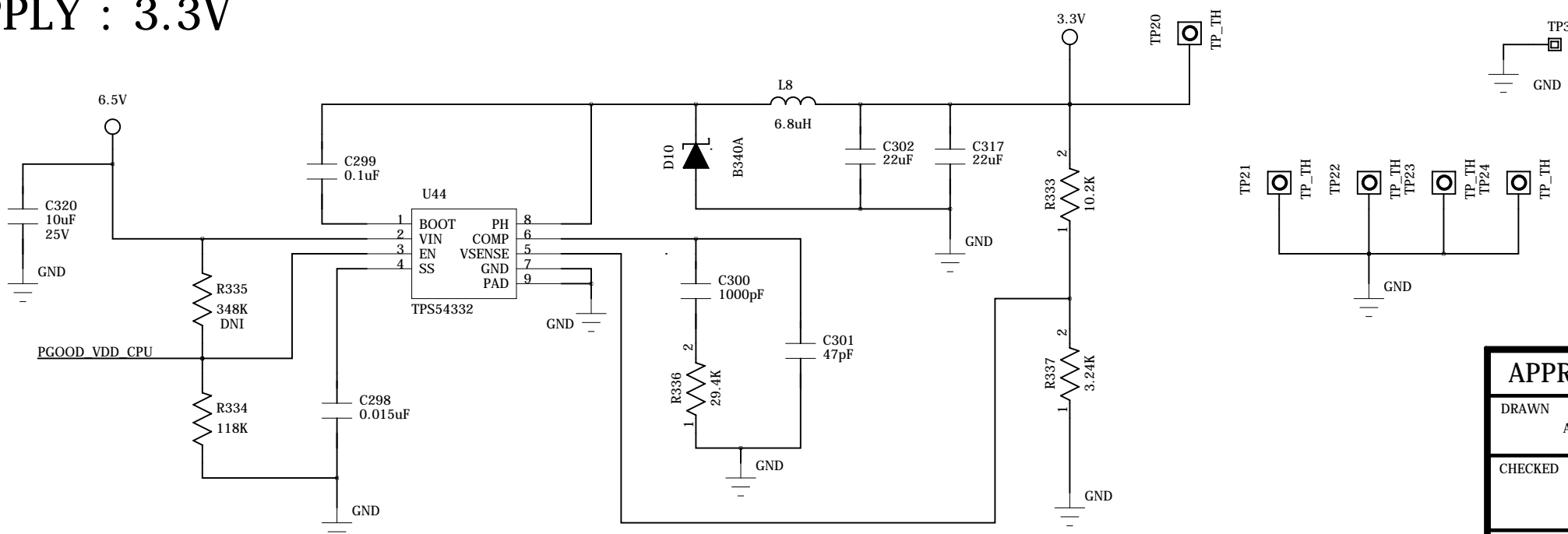
POWER SUPPLY : DDR3



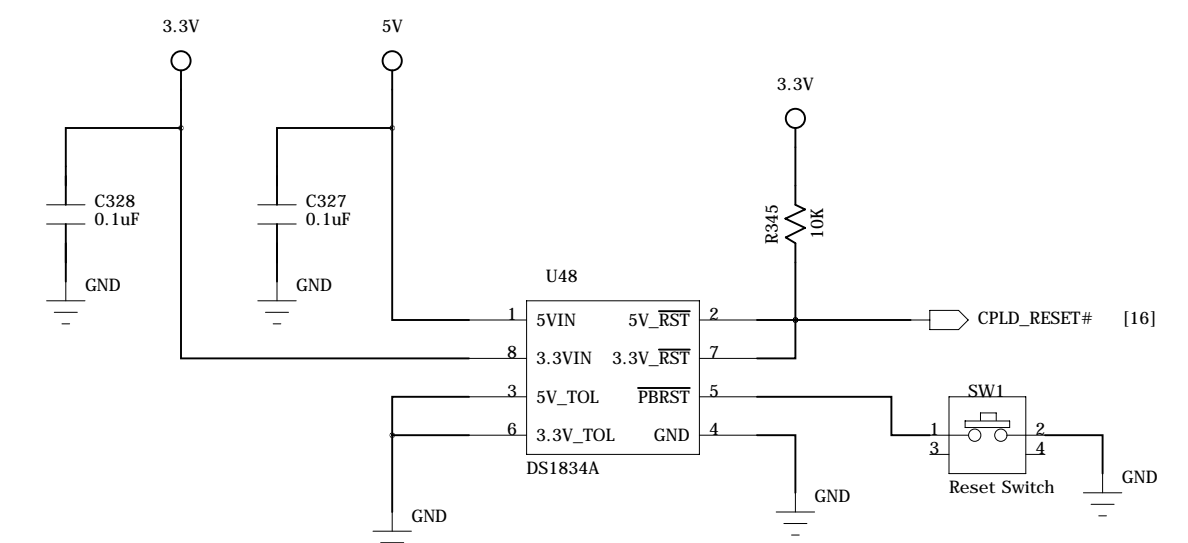
POWER SUPPLY : 5V



POWER SUPPLY : 3.3V



3.3V AND 5V MONITOR_RESET CONTROL



APPROVALS		DATE	COMPRESSOR CONTROLS CORPORATION		
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CHECKED					
ENGINEER			SIZE	DWG. NO. 18-600400-001	SHEET 17
			FILE	APP CARD SCHEMATIC	SCALE
					PROD REV. 2.0

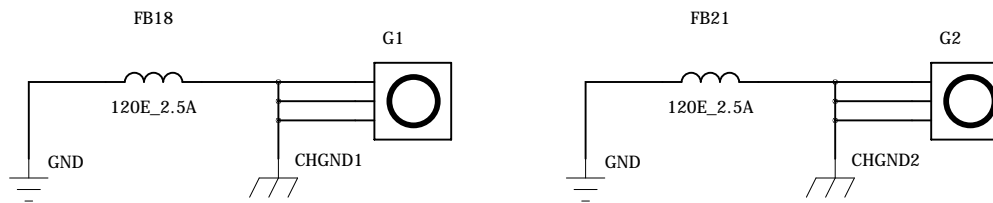
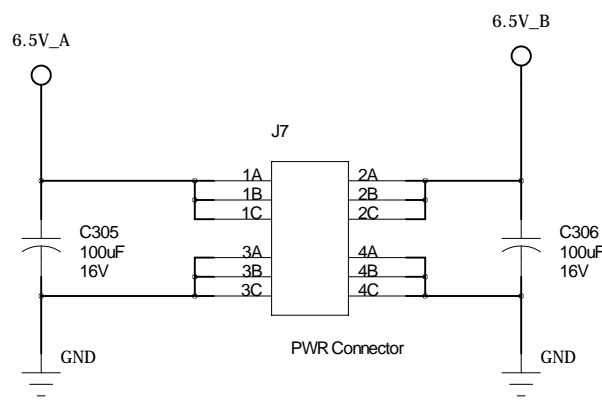
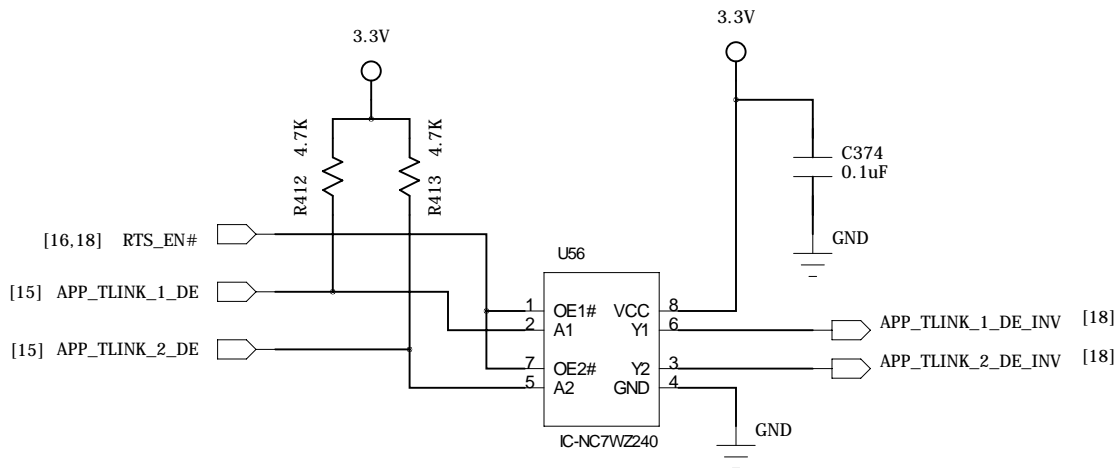
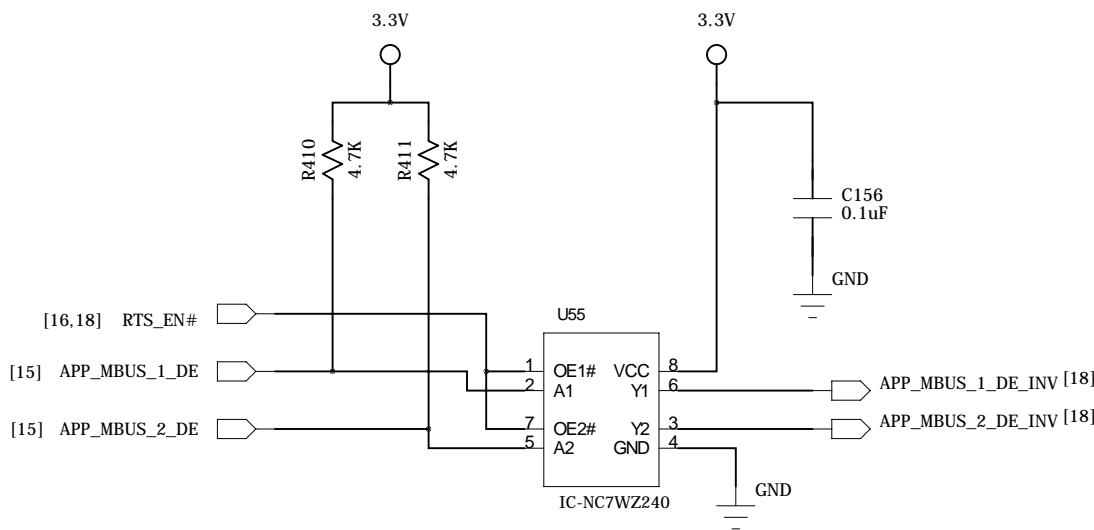
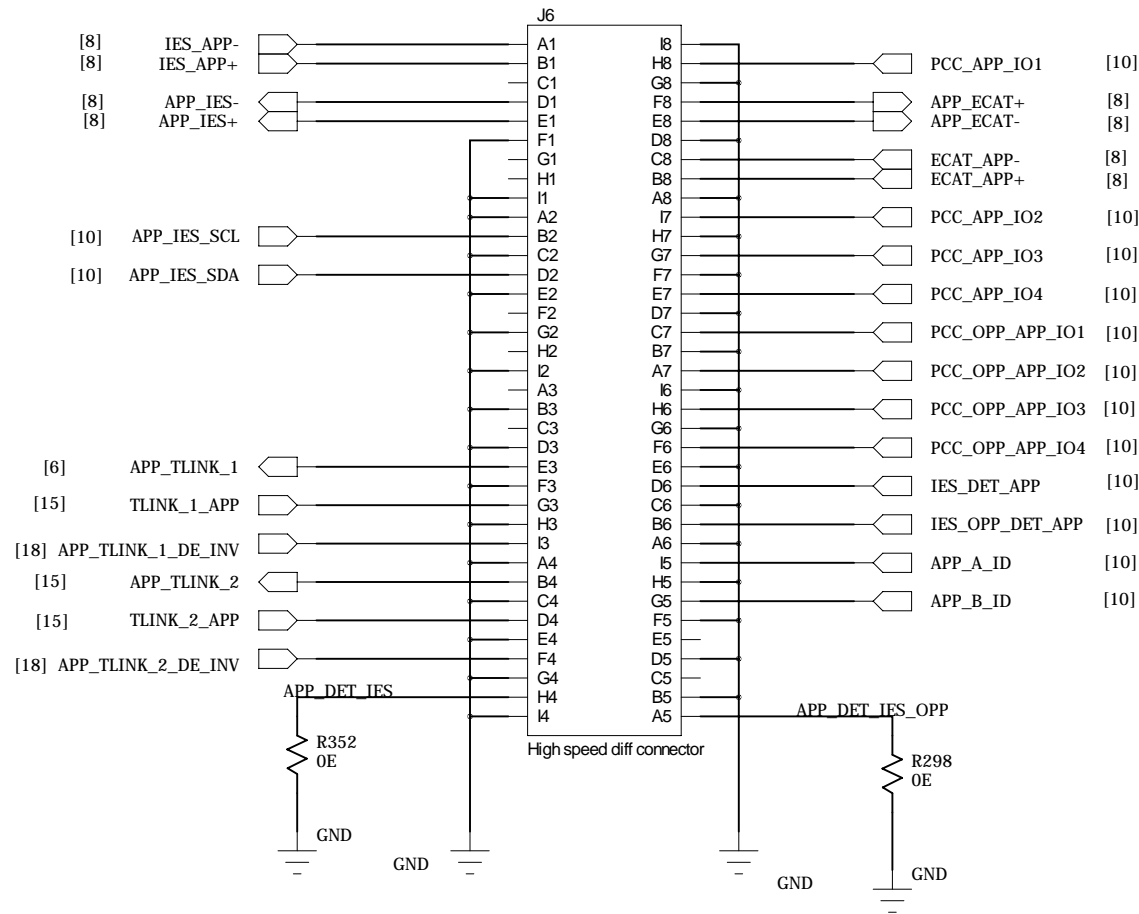
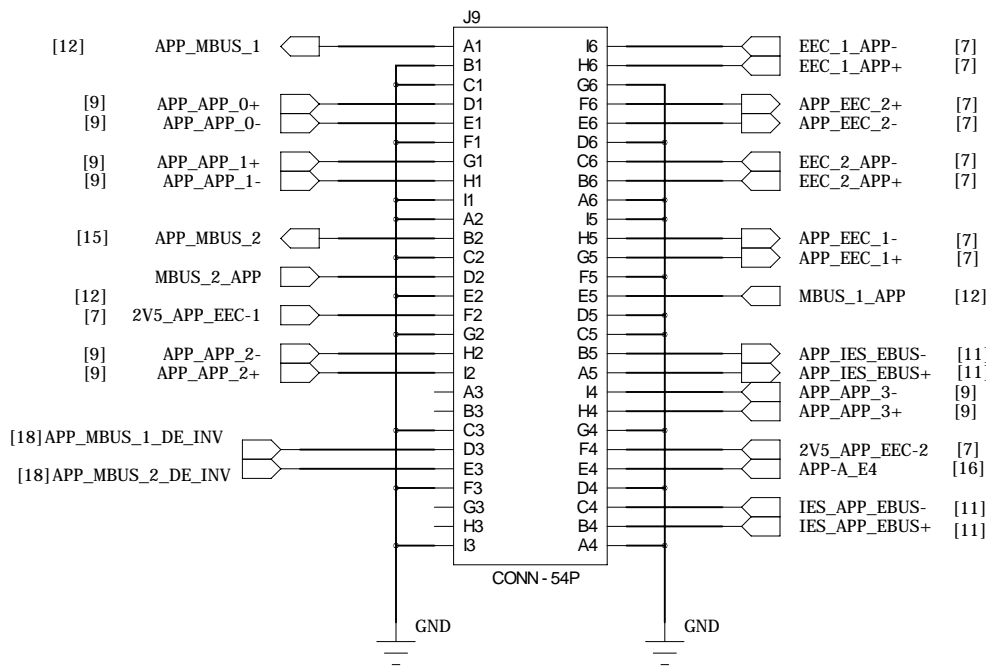
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BACKPLANE CONNECTOR



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				APP CARD SCHEMATIC		

1		2		3		4		5		6			
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				APPROVALS		DATE		COMPRESSOR CONTROLS CORPORATION					
				DRAWN AKHILESH JAISWAL		14-SEP-2011		4725 121st Street - Des Moines, Iowa 50323					
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