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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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REV	REF	DATE	DRAWN BY
1	---	14.01.2009	SHN
2	TRAC#1265	26.03.2009	SHN
3	ECR#198	07.07.2009	SHN
4	TRAC#1359	25.08.2009	SHN

RSK2H8S2456R STARTER KIT SCHEMATICS

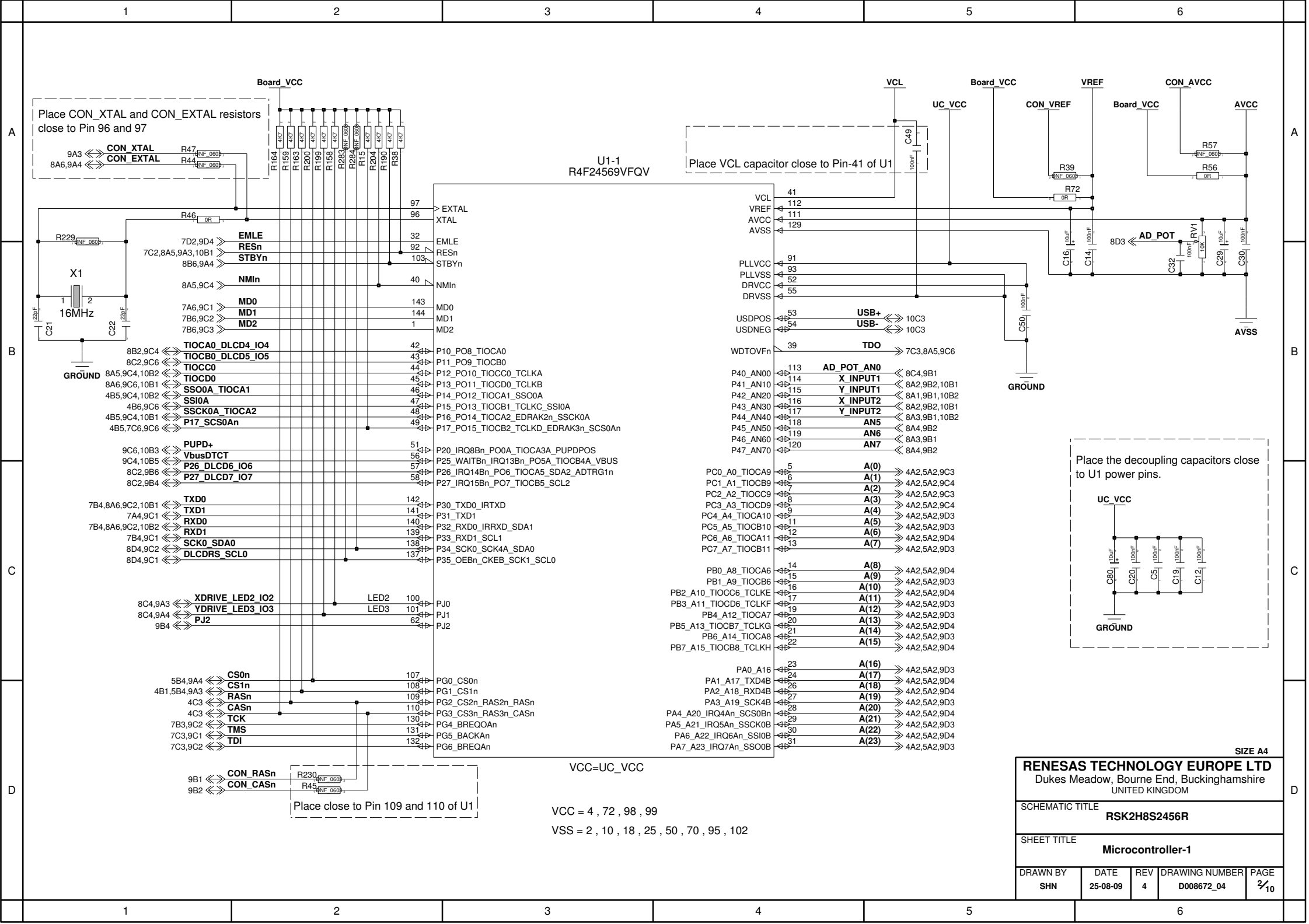
PAGE	DESCRIPTION
1	Index
2	Microcontroller-1
3	Microcontroller-2
4	Memory
5	Address and Data Bus Buffer
6	Switches, Power Supply and Reset
7	E10A Debug Connector and Serial Port
8	Application Headers
9	Ring Connectors
10	Generic LCD Connector and USB

Note :

- R** : Resistor
- RV** : Potentiometer
- L** : Inductor
- U** : Integrated Circuit
- X** : Crystal
- RES** : Reset Switch
- SW** : Switch
- LED** : Light Emitting Diode
- PWR** : Power Jack
- J** : Connector

SIZE A4

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SCHEMATIC TITLE RSK2H8S2456R				
SHEET TITLE Index				
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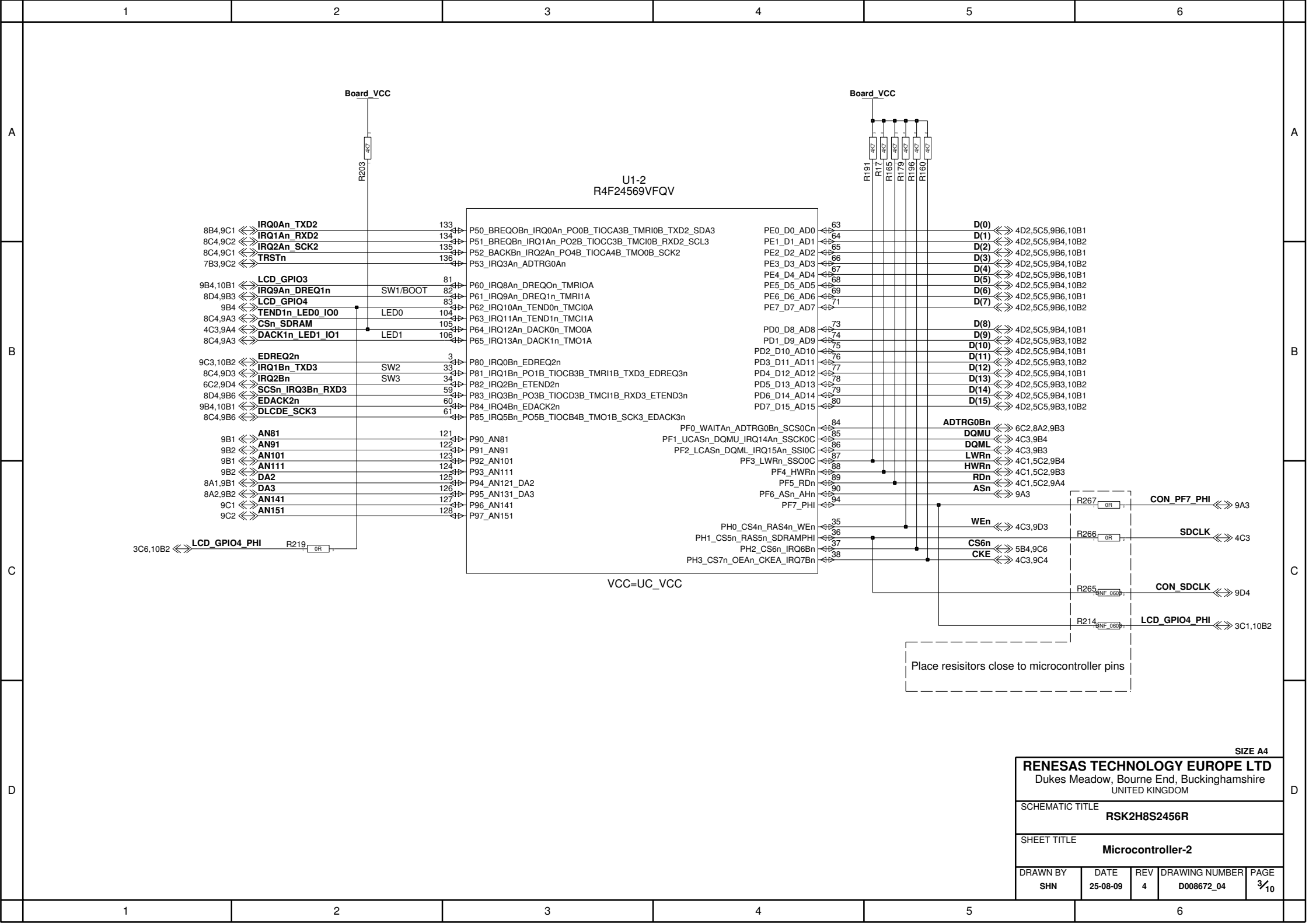
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SCHEMATIC TITLE
RSK2H8S2456R

SHEET TITLE
Microcontroller-1

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U1-2
R4F24569VFQV

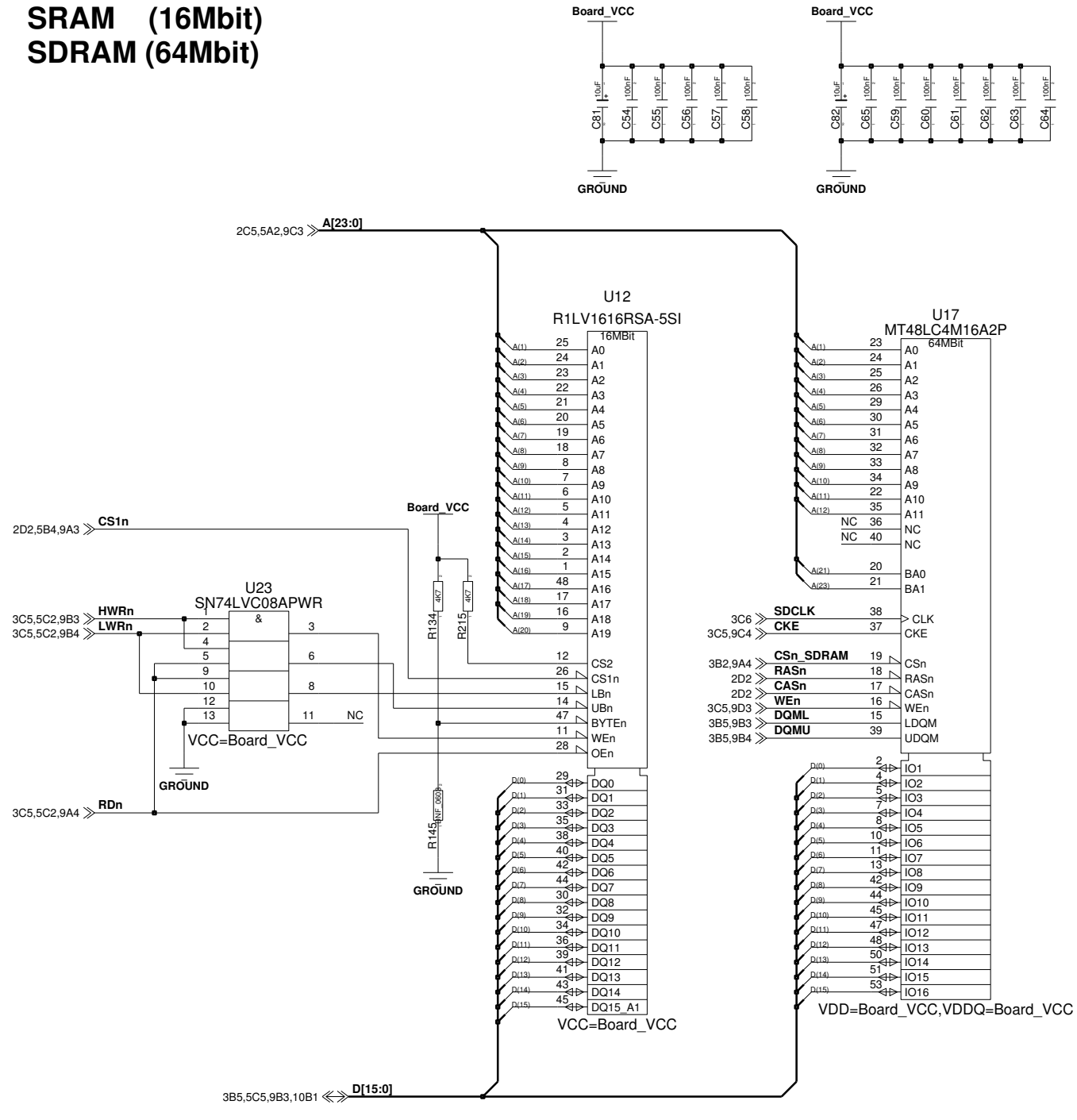
VCC=UC_VCC

Place resistors close to microcontroller pins

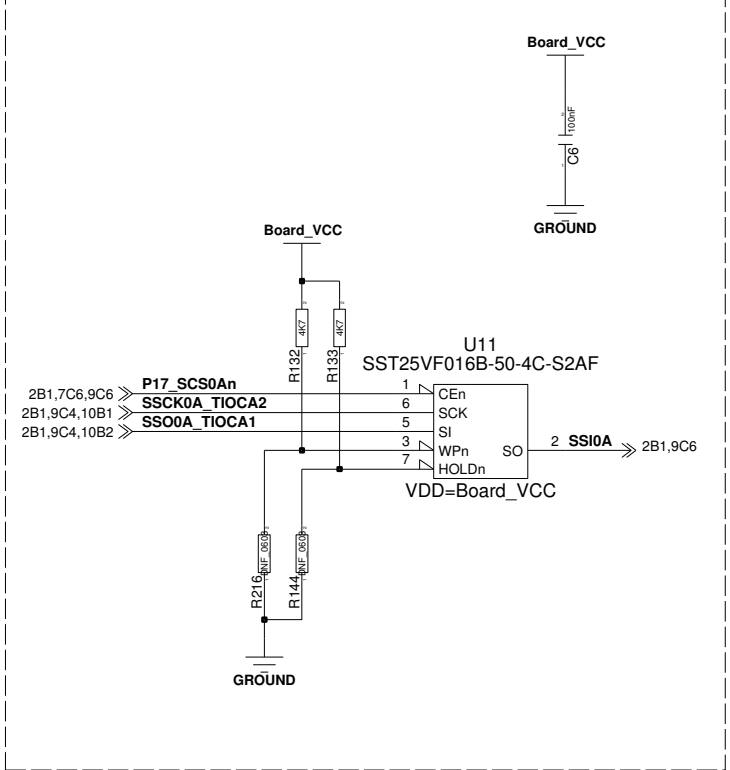
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SHEET TITLE Microcontroller-2				
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**SRAM (16Mbit)
SDRAM (64Mbit)**



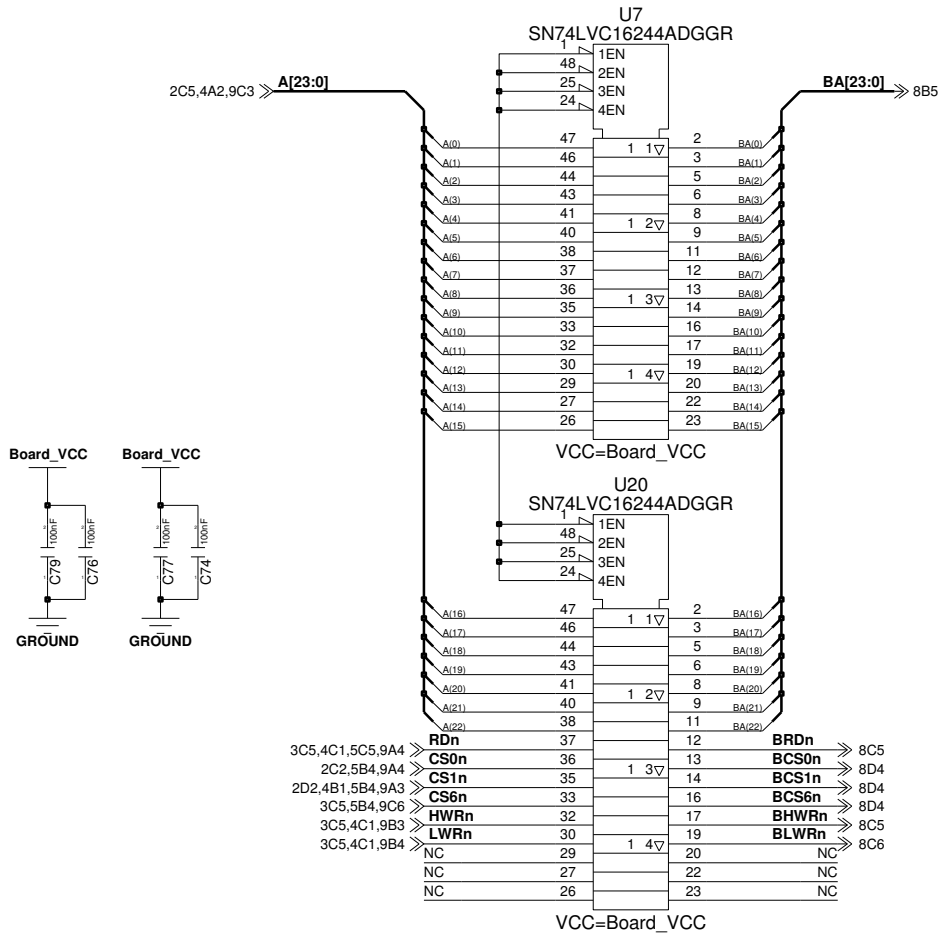
16 Mbit SPI Serial Flash



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SHEET TITLE Memory				
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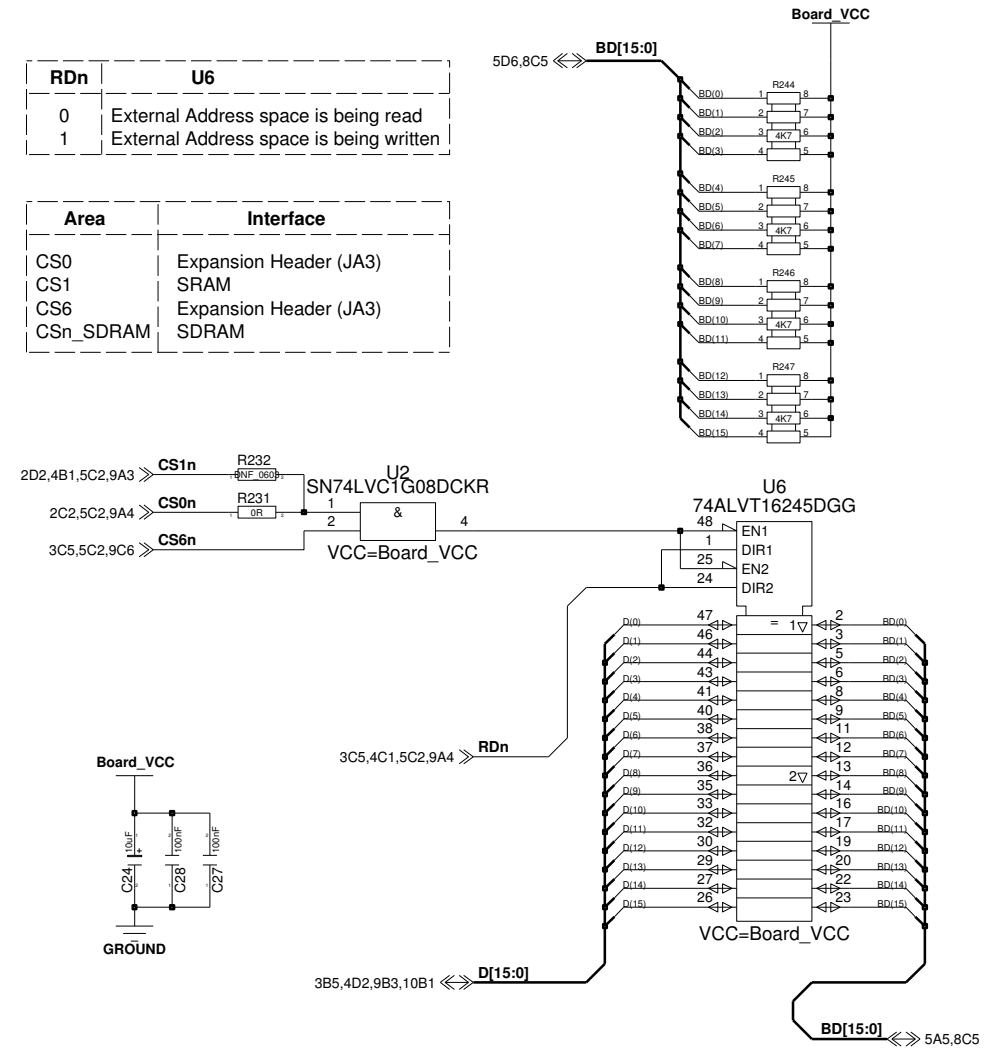
Expansion Address Bus and Control Signal Buffer



Data Bus Direction selector and Buffer

RDn	U6
0	External Address space is being read
1	External Address space is being written

Area	Interface
CS0	Expansion Header (JA3)
CS1	SRAM
CS6	Expansion Header (JA3)
CSn_SDRAM	SDRAM



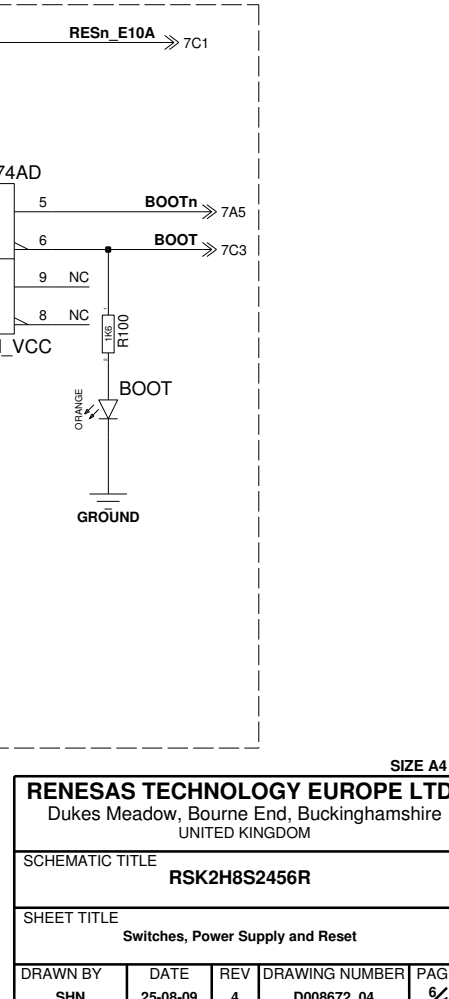
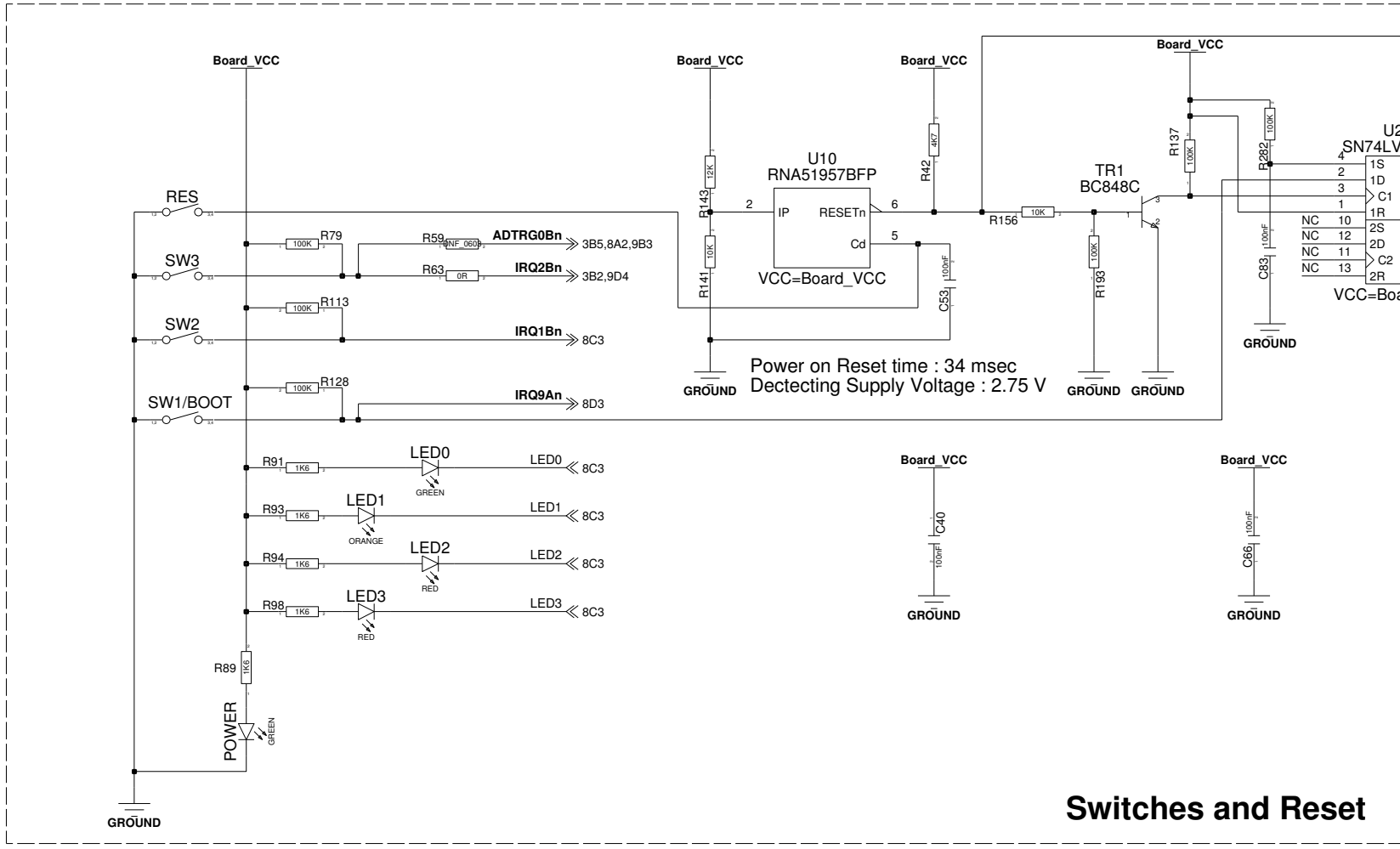
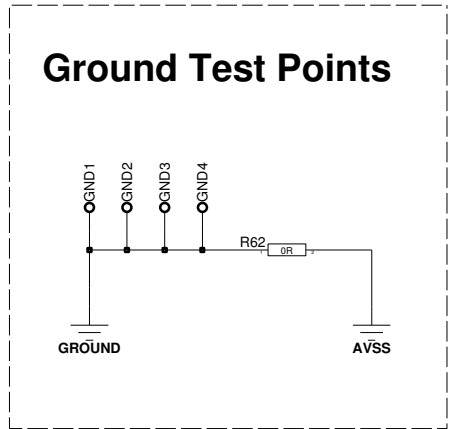
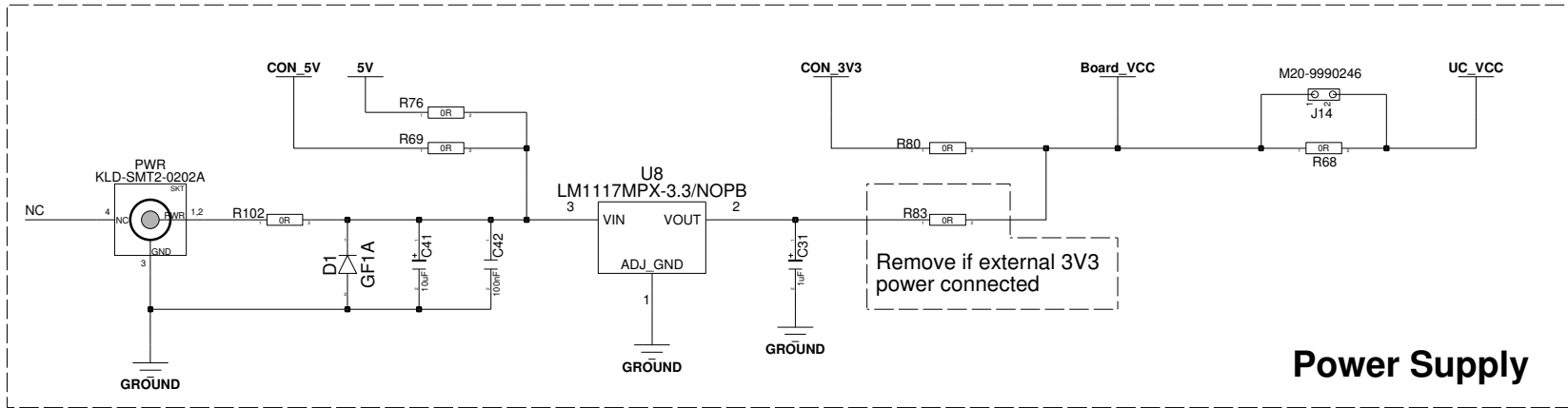
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SCHEMATIC TITLE
RSK2H8S2456R

SHEET TITLE
Address and Data Bus Buffer

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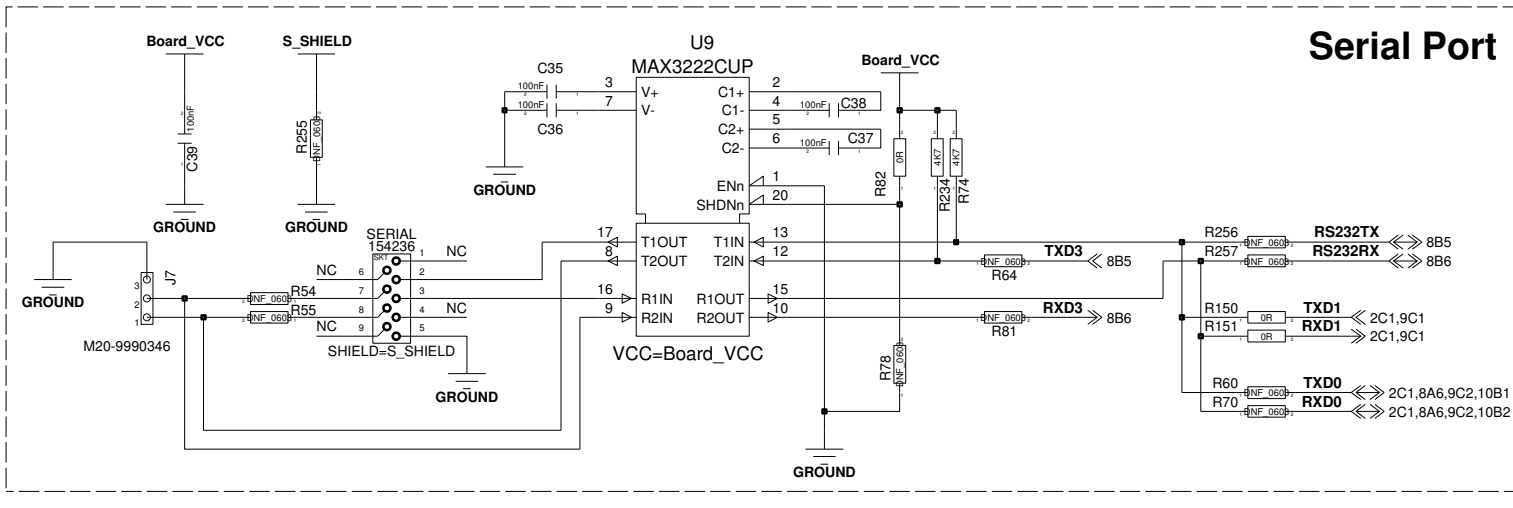
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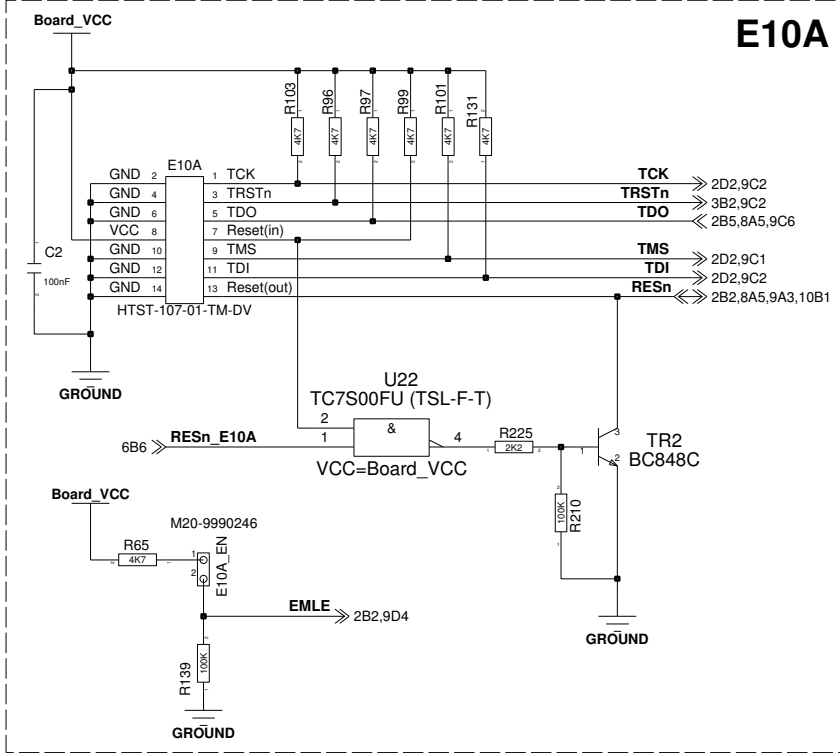
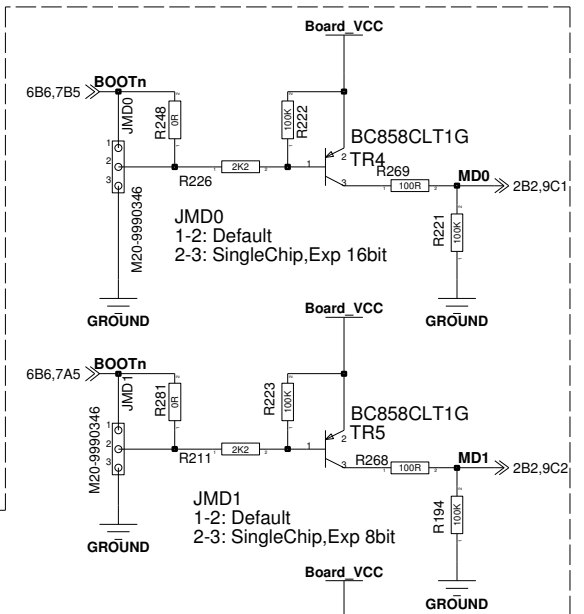
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SHEET TITLE
Switches, Power Supply and Reset

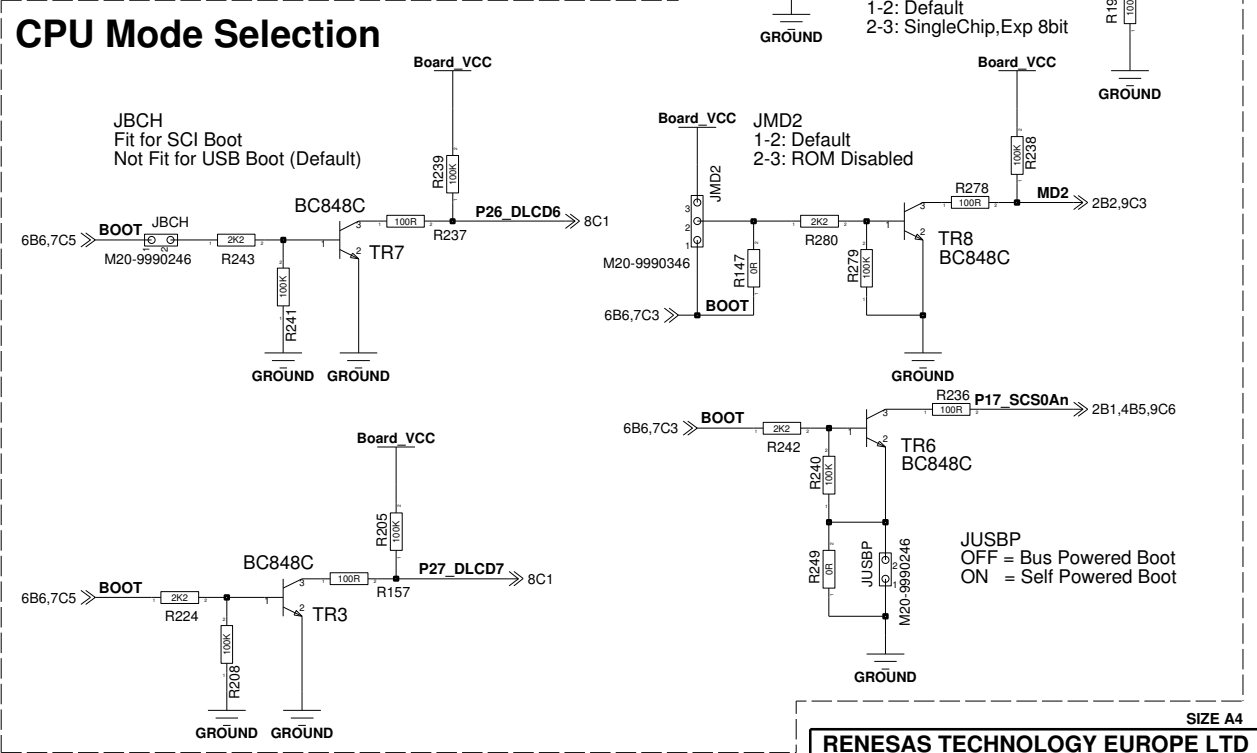
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Serial Port



E10A



CPU Mode Selection

Mode Type	MD2	MD1	MD0	P27	P26	Clock Frequency	On Chip ROM	External Data Bus Initial Value	External Data Bus Max Value
Expansion Mode	0	0	1	X	X	---	Disabled	16 bits	16 bits
Expansion Mode	0	1	0	X	X	---	Disabled	8 bits	16 bits
SCI Boot Mode	0	1	1	0	0	---	Enabled	---	16 bits
USB Boot Mode	0	1	1	0	1	16 MHz	Enabled	---	16 bits
Expansion Mode **	1	0	0	X	X	---	Enabled	8 bits	16 bits
Single Chip Mode	1	1	1	X	X	---	Enabled	---	16 bits

** Default Mode

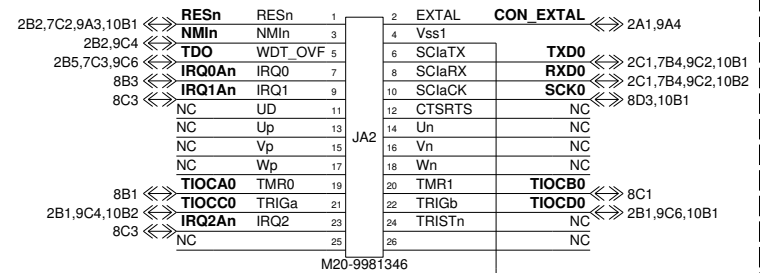
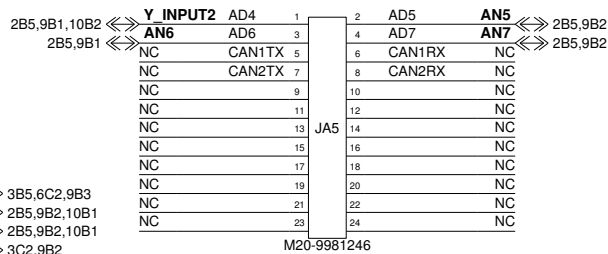
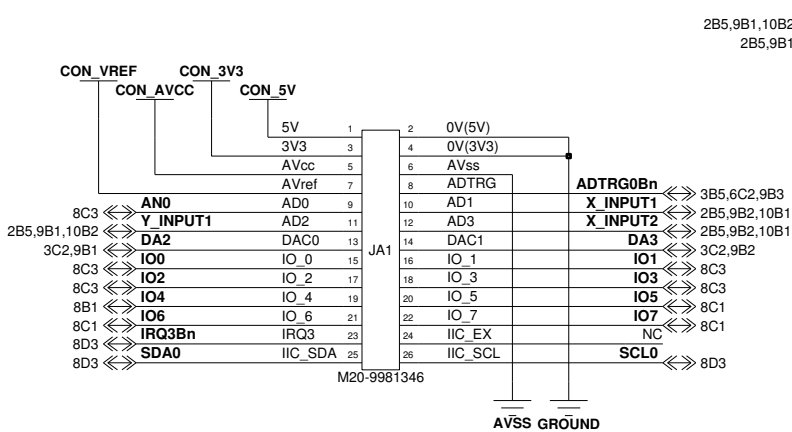
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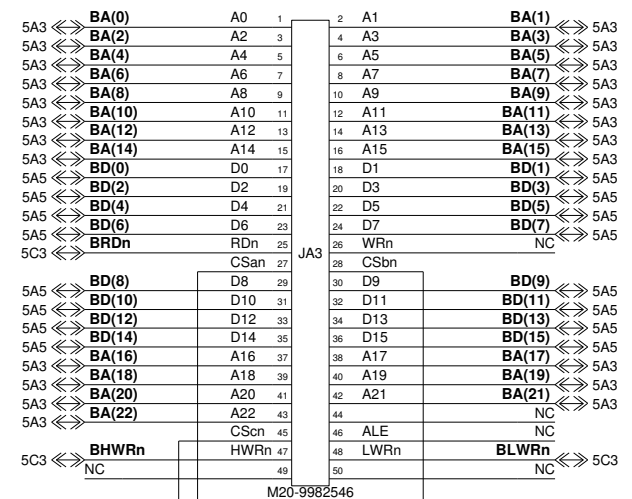
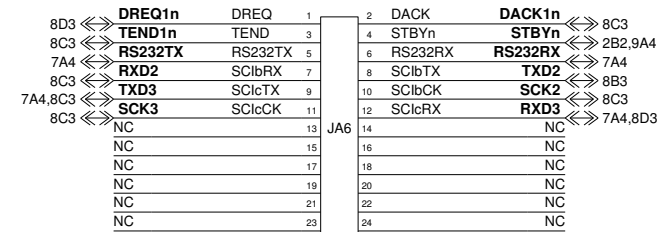
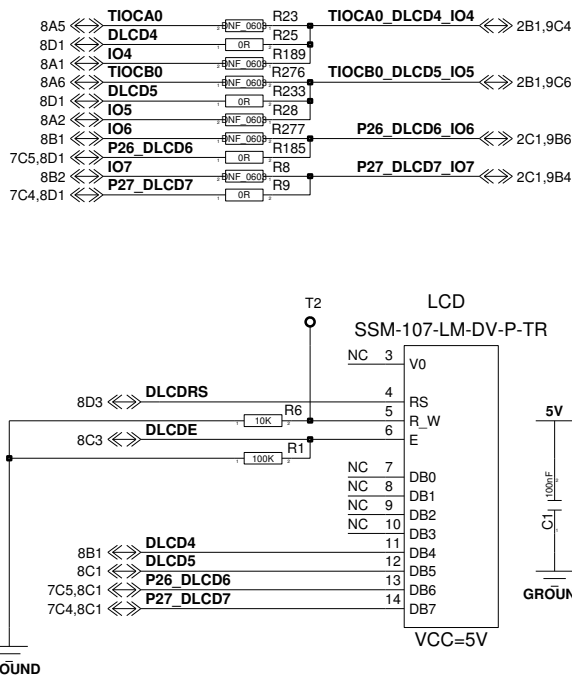
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E10A Debug Connector and Serial Port

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APPLICATION HEADERS

DEBUG LCD and OPTION LINKS



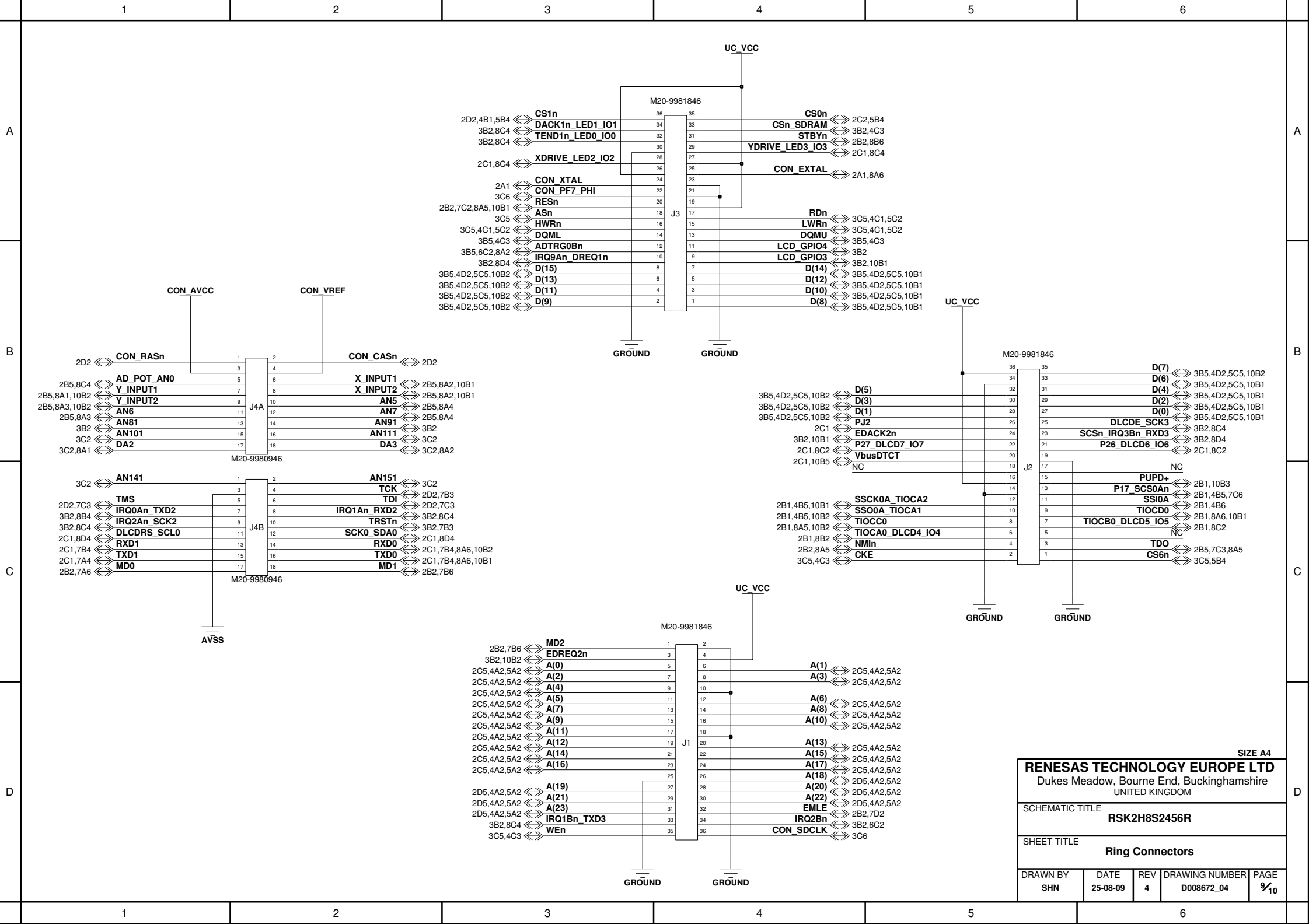
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Application Headers

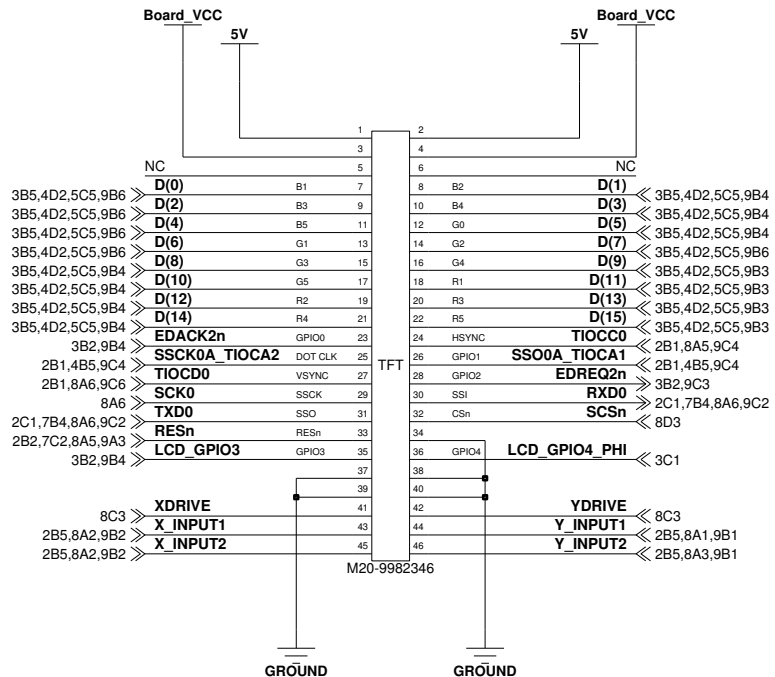
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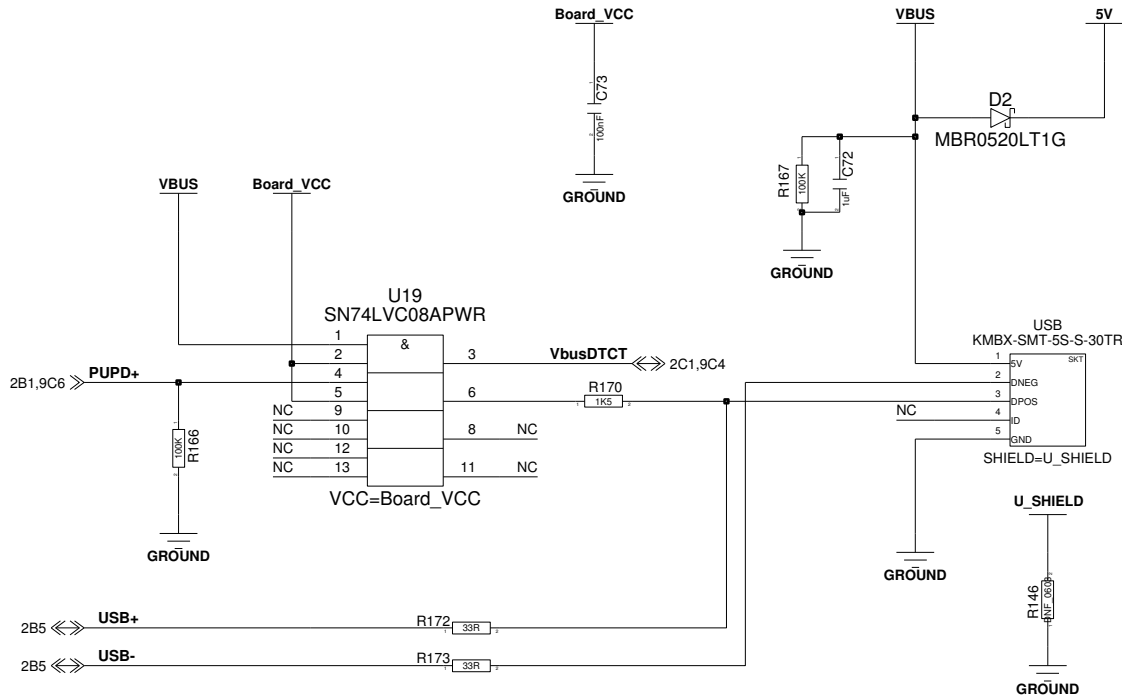
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SCHEMATIC TITLE				
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SHEET TITLE				
Ring Connectors				
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Generic TFT LCD Header



USB Function



USB signals should have matched lengths.

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SCHEMATIC TITLE				
RSK2H8S2456R				
SHEET TITLE				
Generic LCD Connector and USB				
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