

# Renesas Starter Kit for RX610 CPU Board Schematics

REV	REF	DATE	DRAWN BY
1.00	For MP Product	19.02.2010	YOI
2.00	For MP Product (There is no schematic change)	08.02.2011	YOI

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**Note:**

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

\* "DNF" marking means that component does not fit by default.

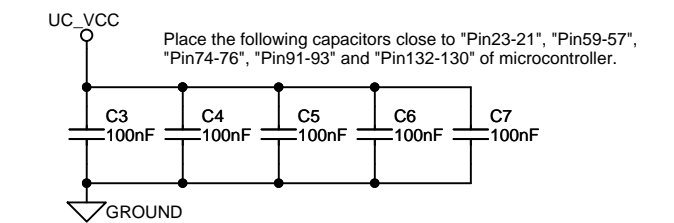
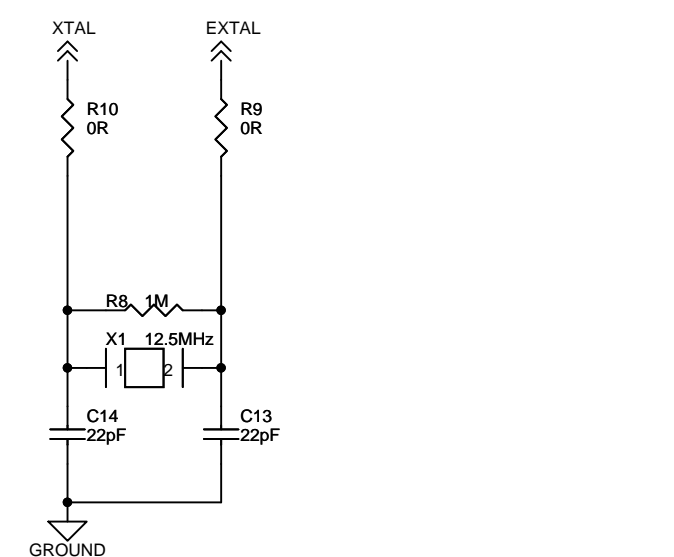
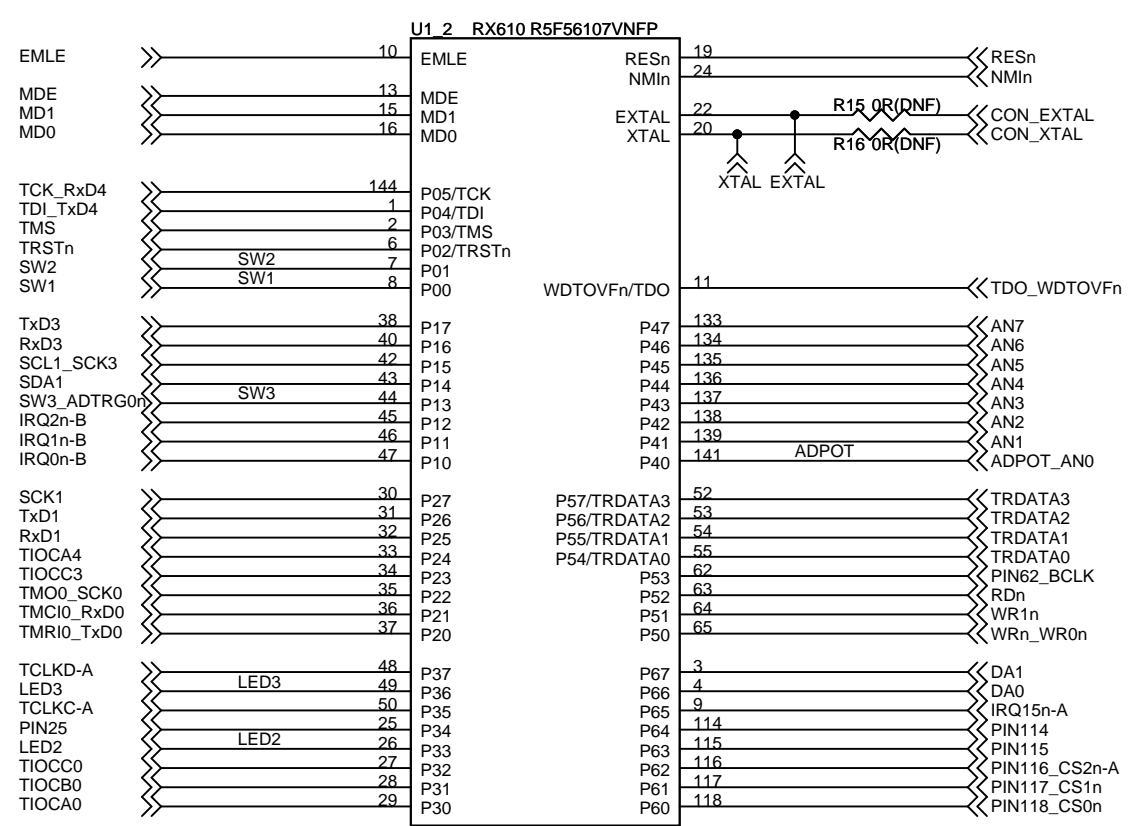
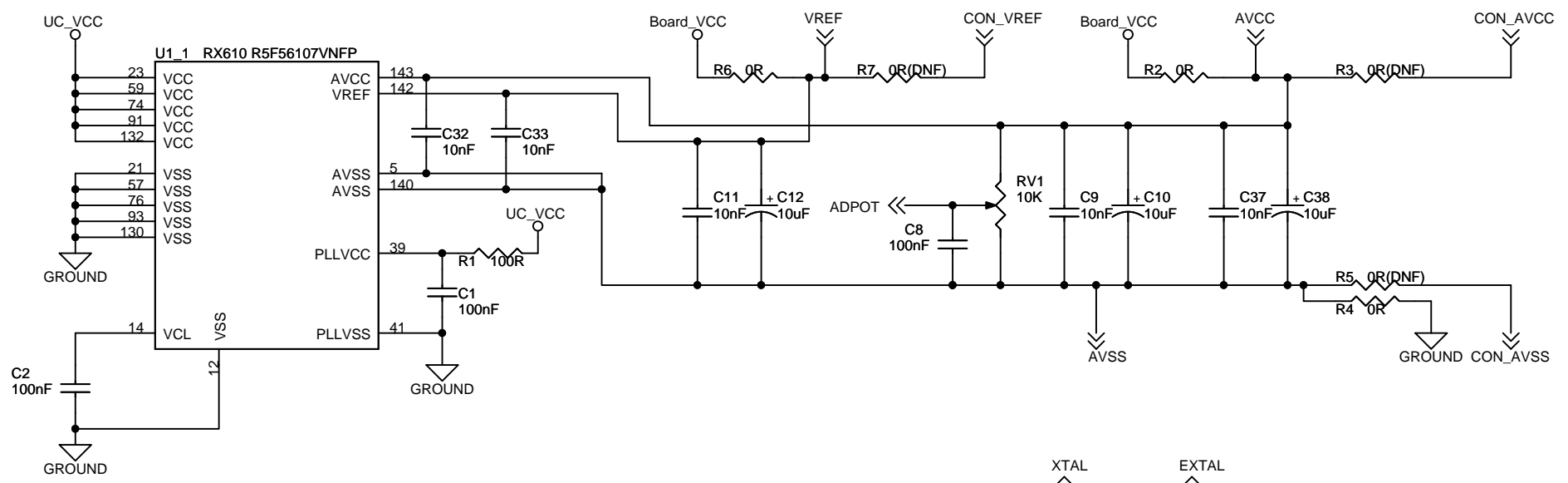
**Board Code:**

**R0K556100C000BE**

REE Drawing No. D009072  
 RSO Drawing No. DK30807

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Title RSKRX610[INDEX]		
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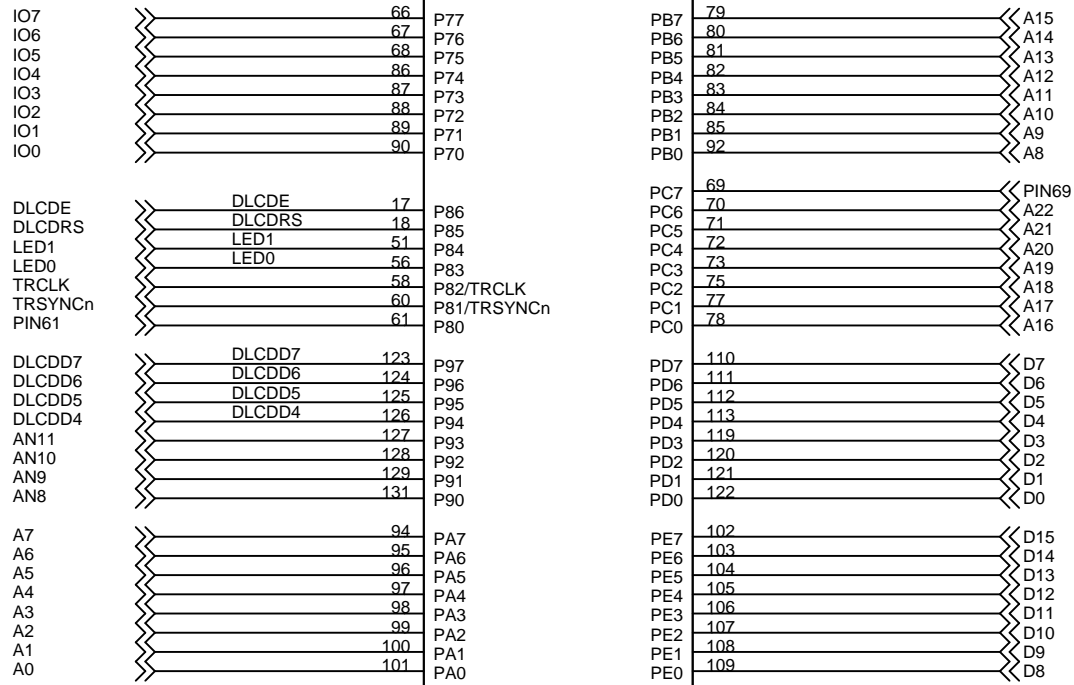
# Microcontroller-1



<b>Renesas Solutions Corp.</b>		
Title		
RSKRX610 [RX610 Micon-1]		
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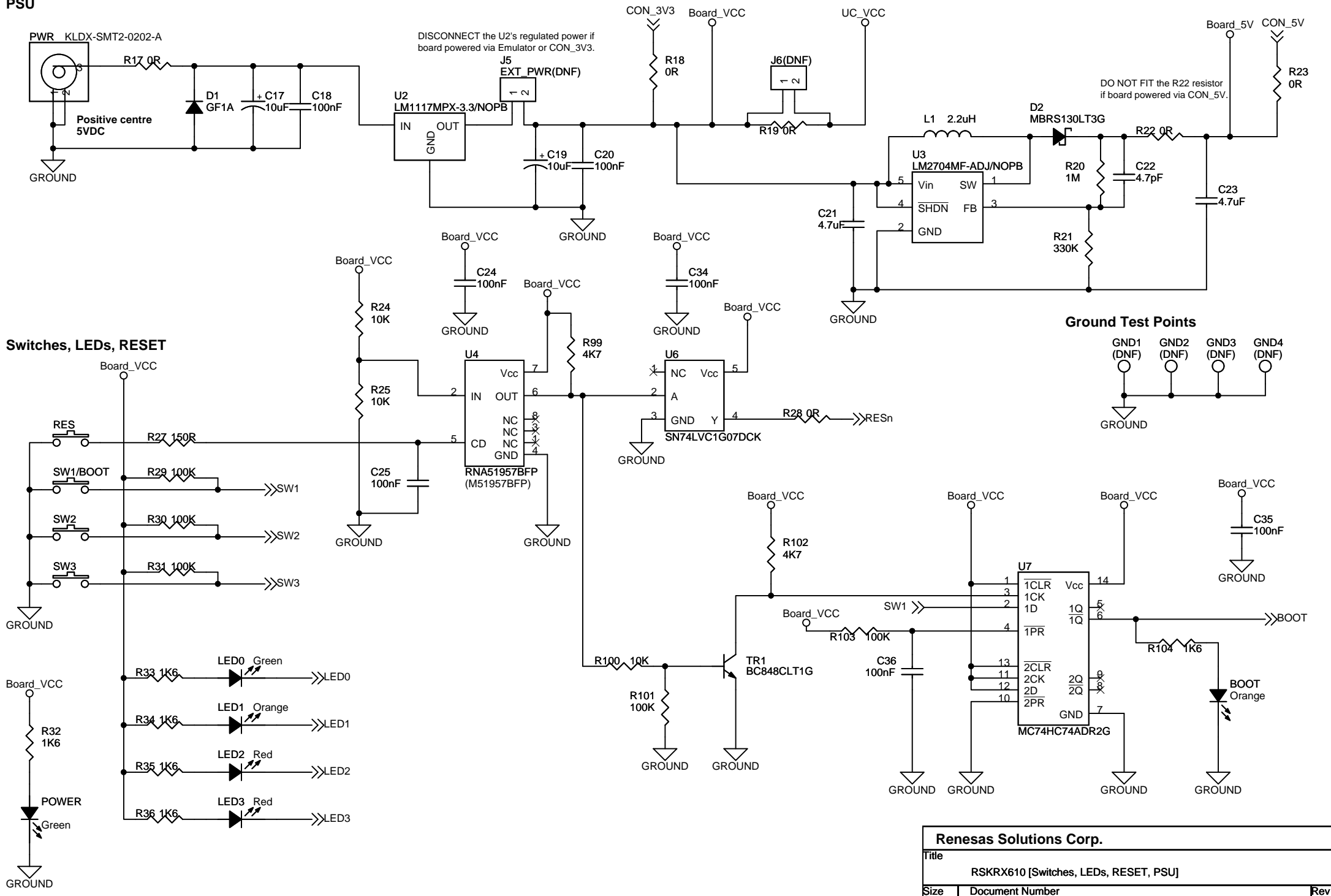
Microcontroller-2

U1\_3 RX610 R5F56107VNFP



**PSU**

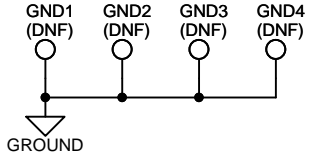
**Switches, LEDs, RESET**



DISCONNECT the U2's regulated power if board powered via Emulator or CON\_3V3.

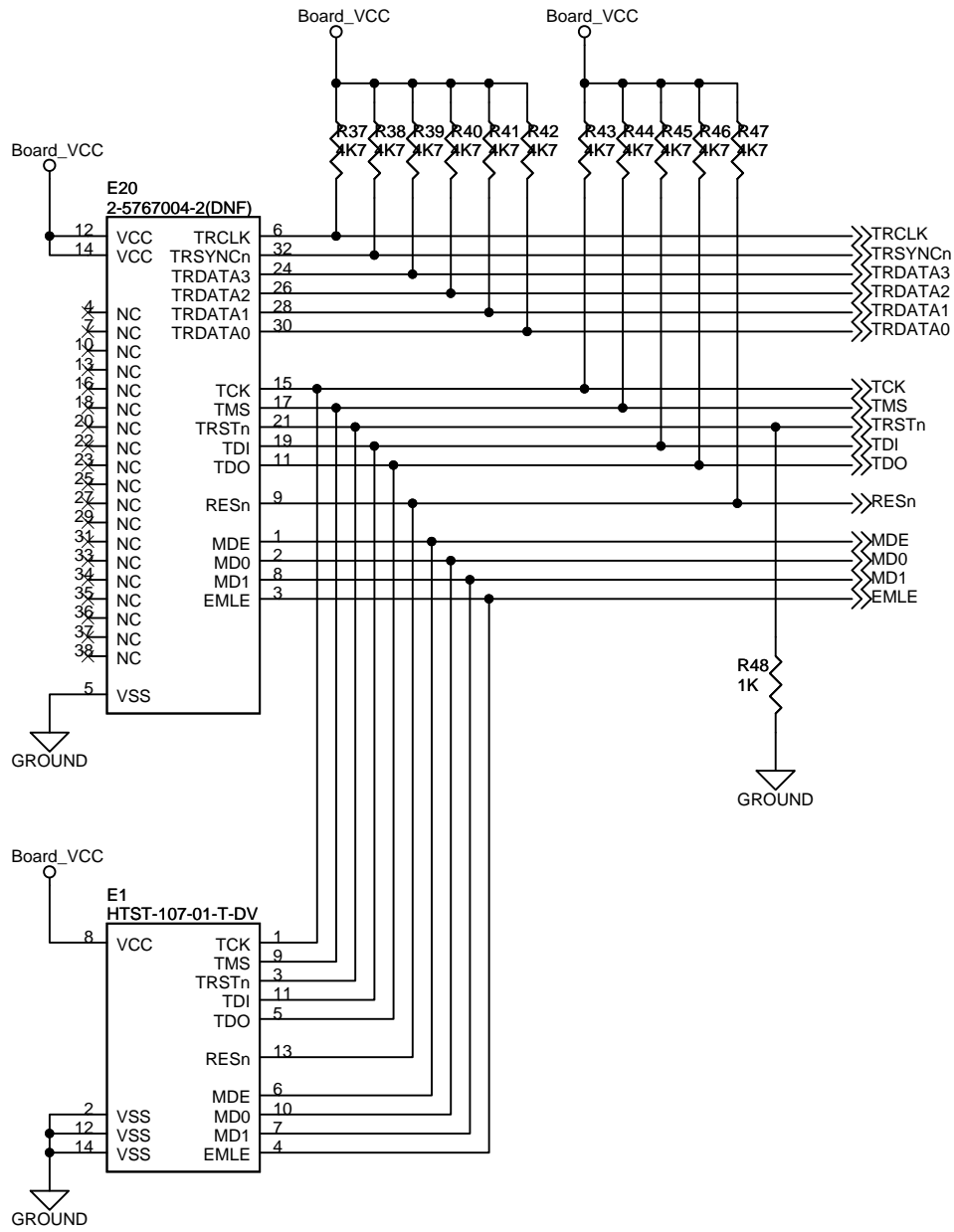
DO NOT FIT the R22 resistor if board powered via CON\_5V.

**Ground Test Points**



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RSKRX610 [Switches, LEDs, RESET, PSU]		
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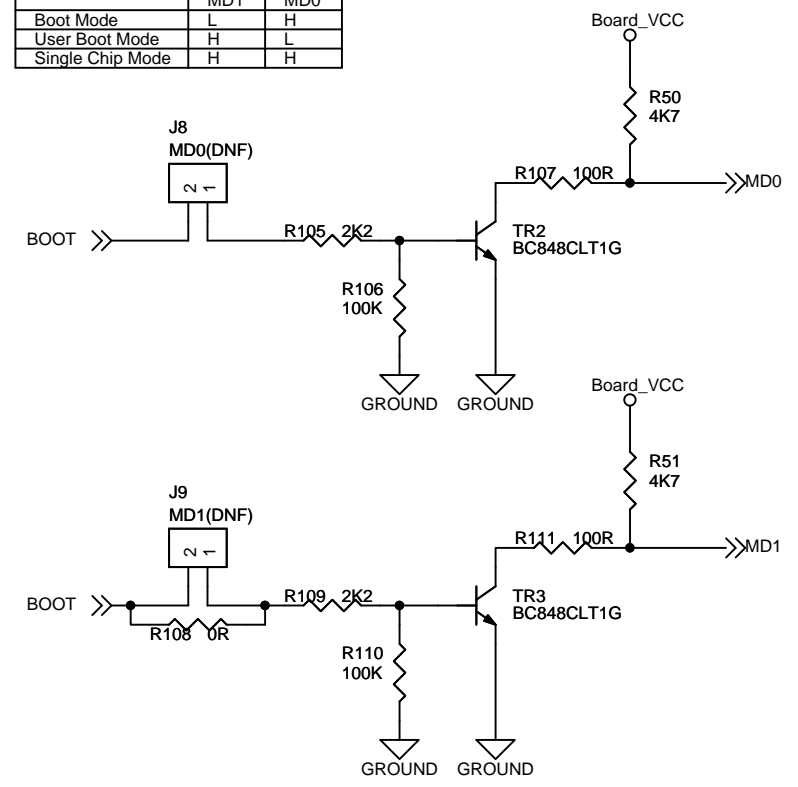
# E1 & E20 Emulator Interface



Note:  
Connect the Ground Bus of E20 Connector to GROUND.

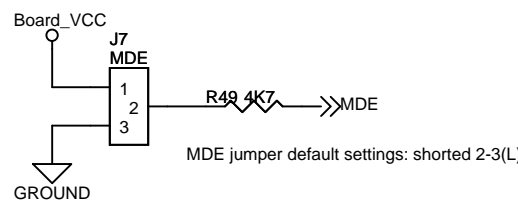
# MCU Operating Mode

	MD1	MD0
Boot Mode	L	H
User Boot Mode	H	L
Single Chip Mode	H	H



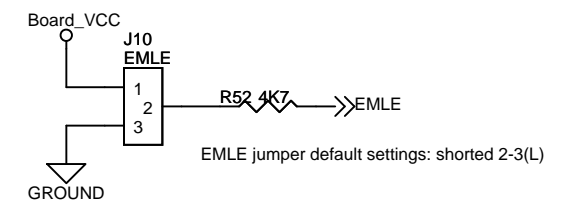
# Endian Select

	MDE
Little Endian	L
Big Endian	H



# Emulator Enable

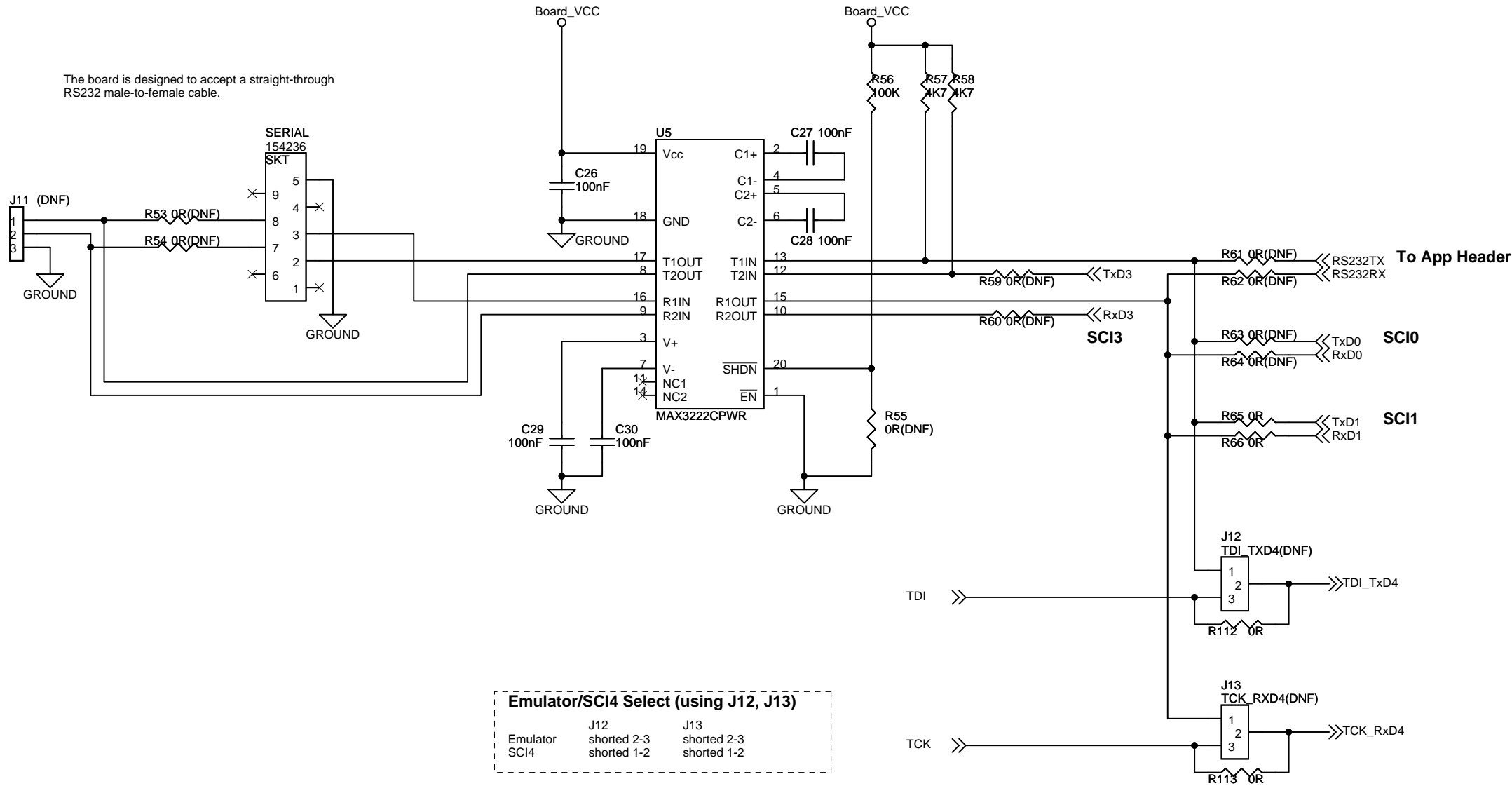
	EMLE
E1/E20 normal debugging or MCU single operation	L
E1/E20 debugging with Hot plug-in or 3rd party tool debugging	H



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# Serial Port

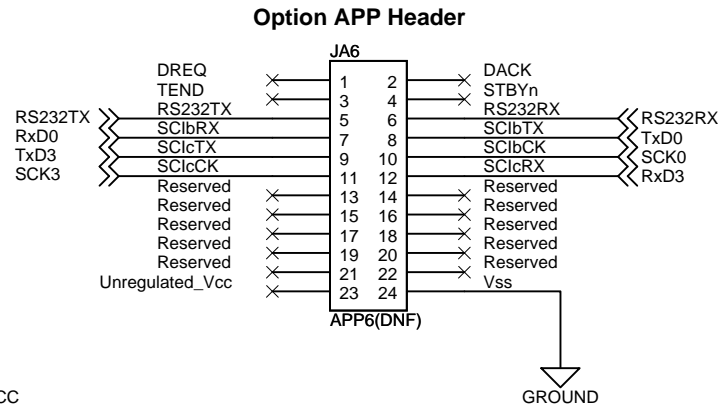
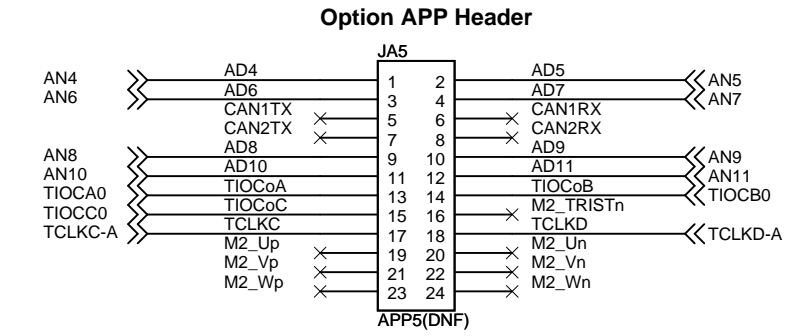
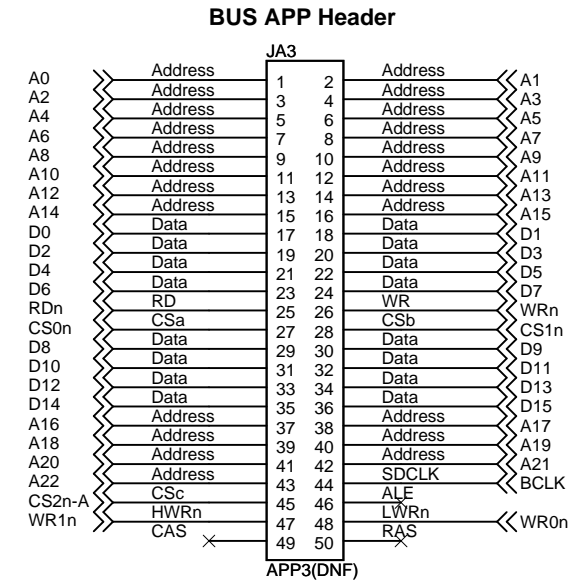
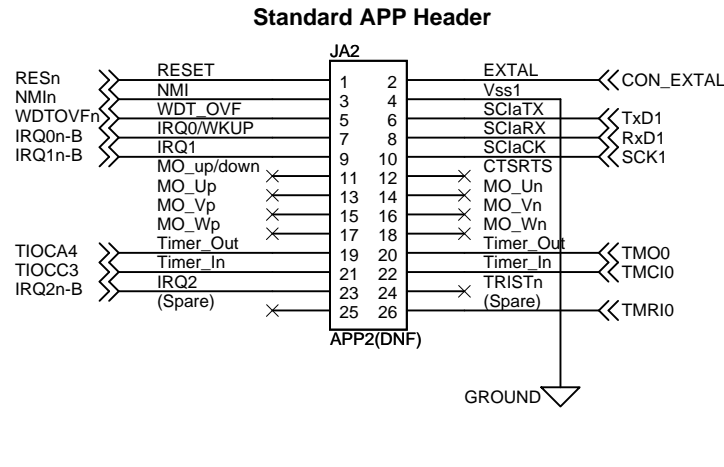
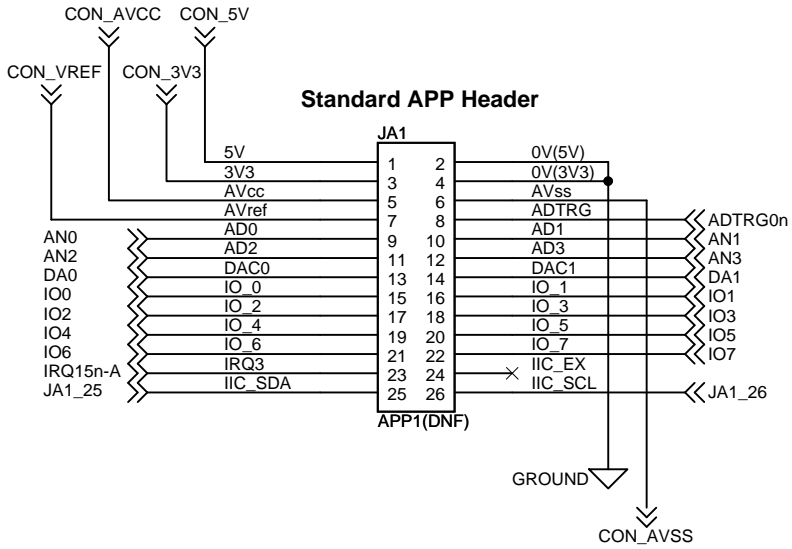
The board is designed to accept a straight-through RS232 male-to-female cable.



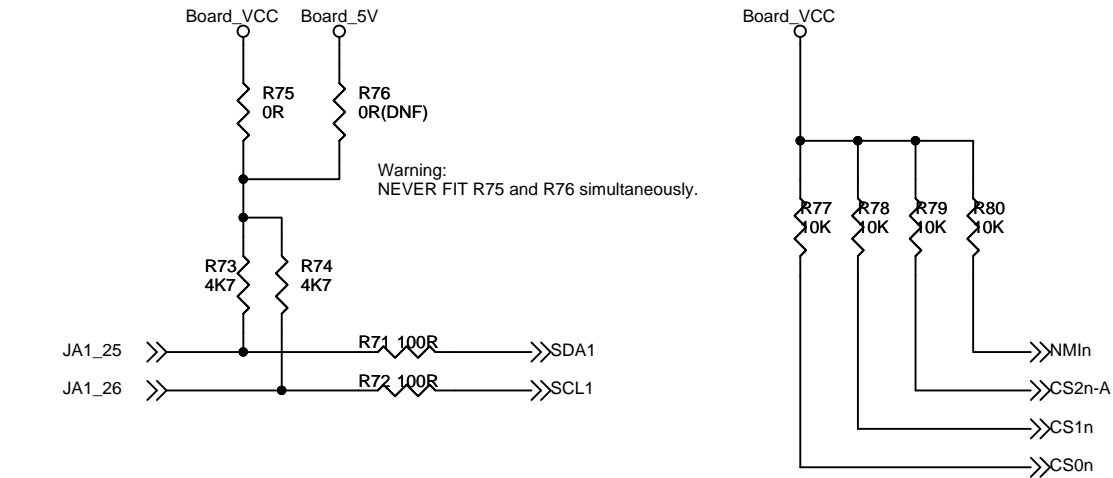
**Emulator/SCI4 Select (using J12, J13)**

	J12	J13
Emulator	shorted 2-3	shorted 2-3
SCI4	shorted 1-2	shorted 1-2

# Application Board Interface

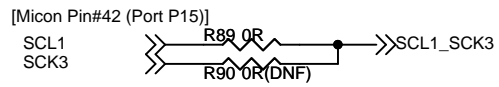
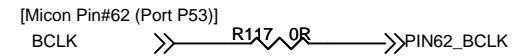
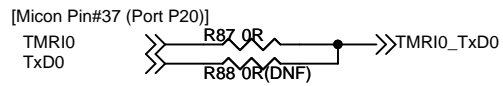
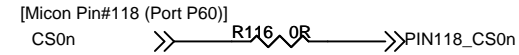
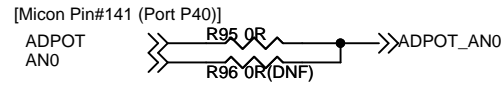
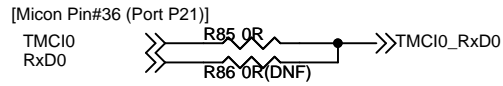
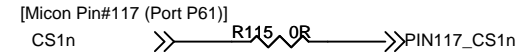
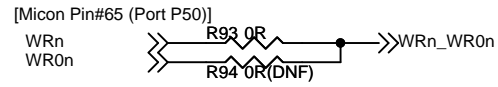
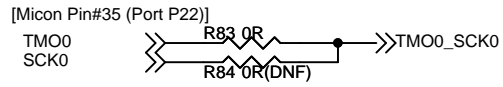
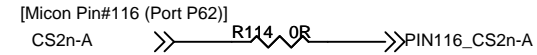
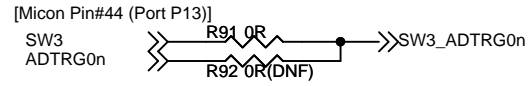
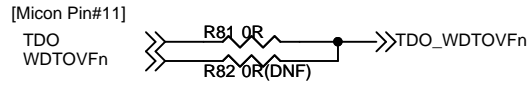


Note:  
BCLK is assigned to JA3-44 instead of SDCLK.

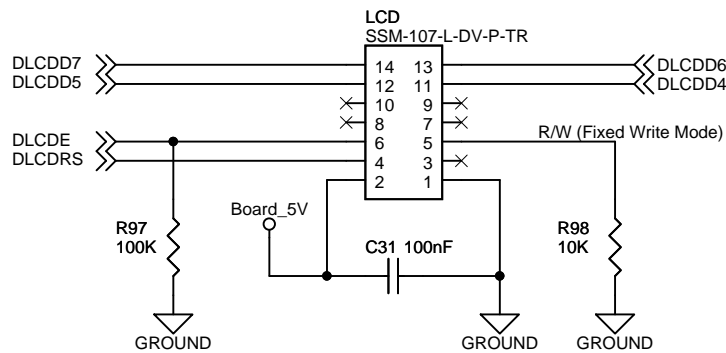


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# Microcontroller Pin Function Select



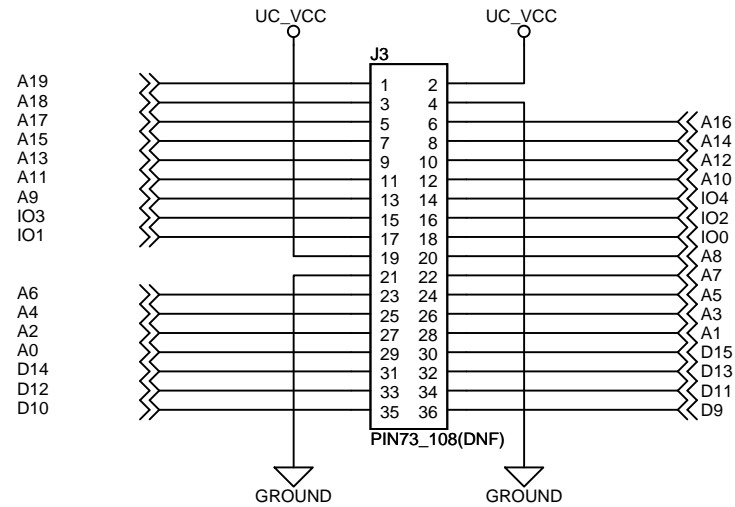
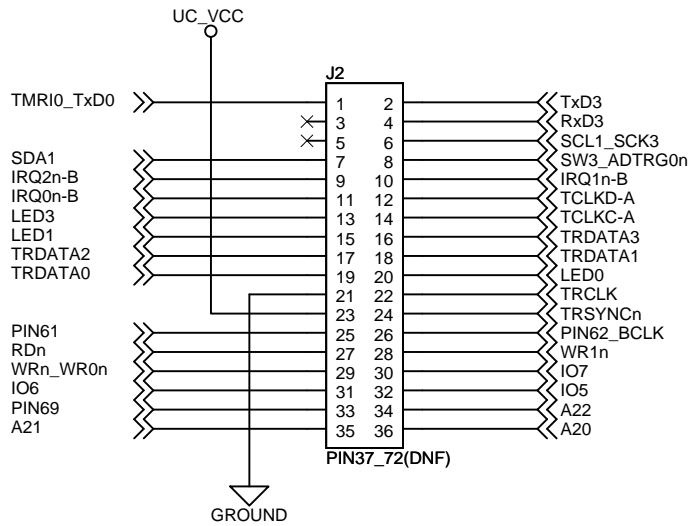
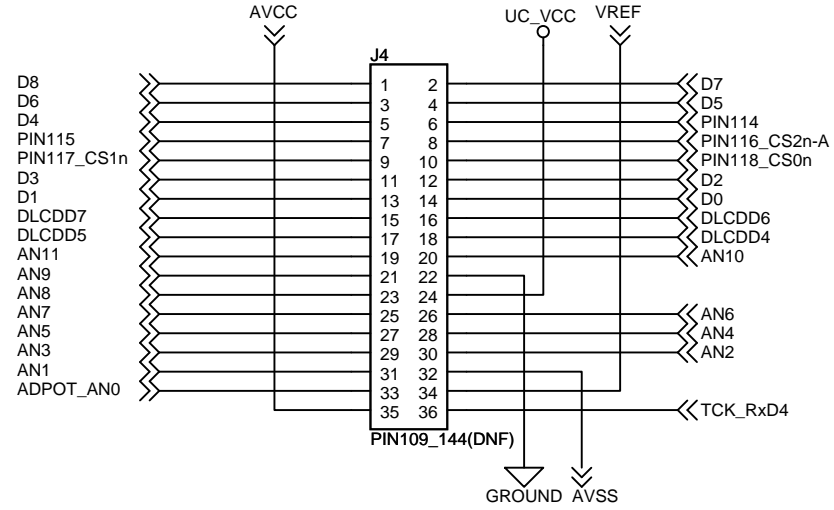
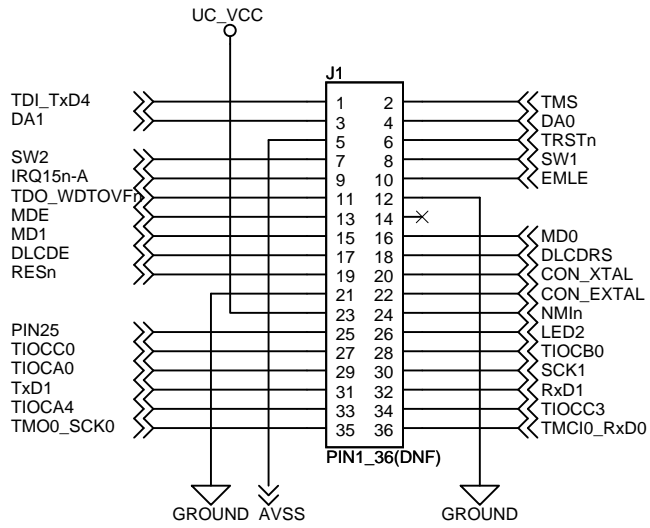
## Debug LCD



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RSKR610 [Pin Function Select, Debug LCD]		
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# Microcontroller Pin Headers



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