

Renesas Starter Kit for RX231 CPU Board Schematics

REV	REF	DATE	DRAWN BY
1.00	Release	10.06.2015	YOJ

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Note:

- C : Capacitor
- D : Diode
- R : Fixed Resistor
- RV : Potentiometer
- L : Inductor
- U : Integrated Circuit
- X : Crystal, Oscillator
- RES : Reset Switch
- SW : Switch
- LED : Light Emitting Diode
- PWR : Power Jack
- J : Connector, Jumper

* "DNF" marking means that component is not fitted by default.

Board Code:

R0K505231C000BE : MP Board

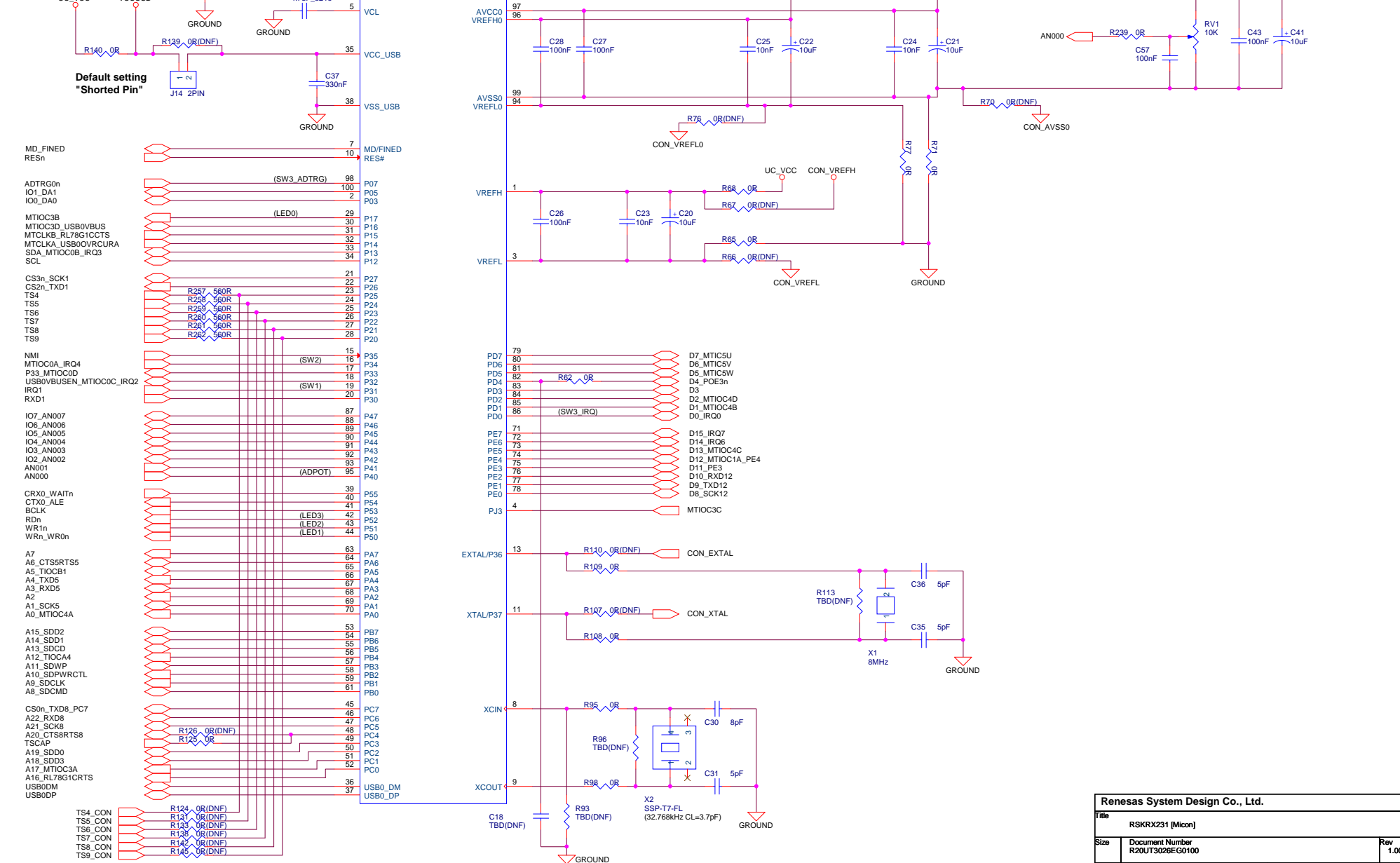
Drawing No. D013312_04

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RX231 Microcontroller

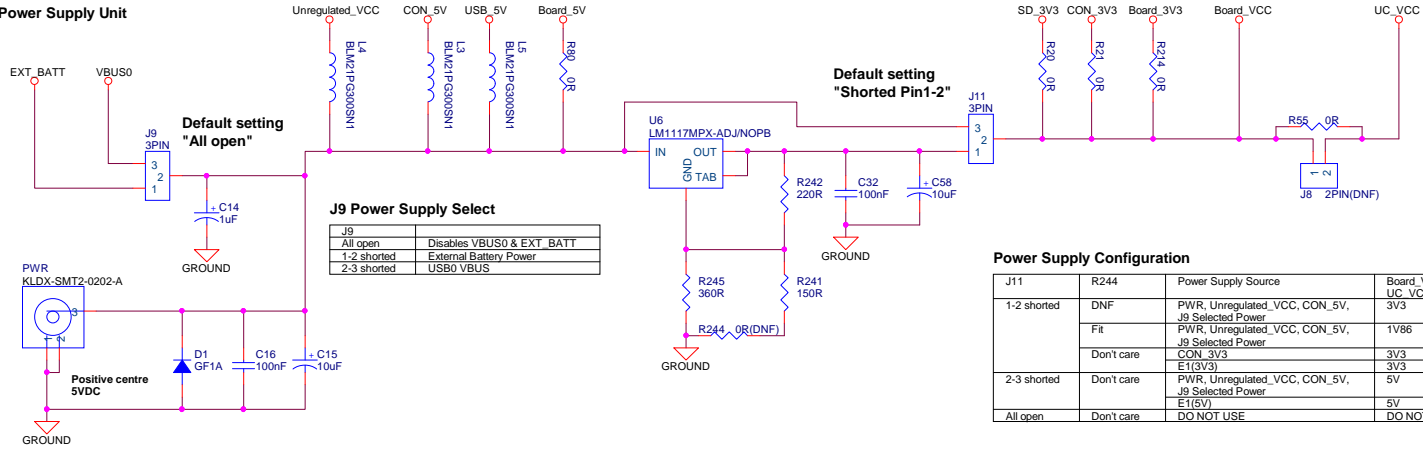
Note:

Microcontroller's pins are not described by the full pin function.
For full pin function details, refer to RX231 datasheet.

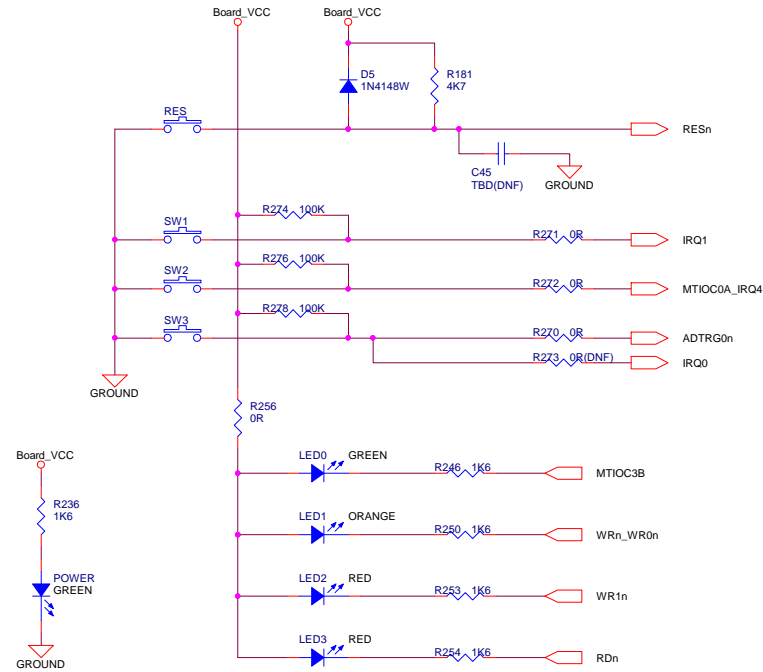


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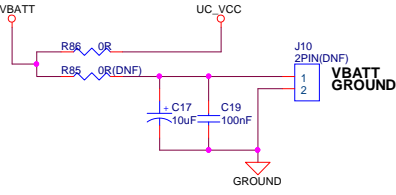
Power Supply Unit



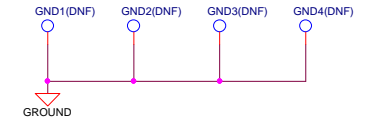
Reset, Switches, LEDs



VBATT



Ground Test Point



MCU Operating Mode Configuration

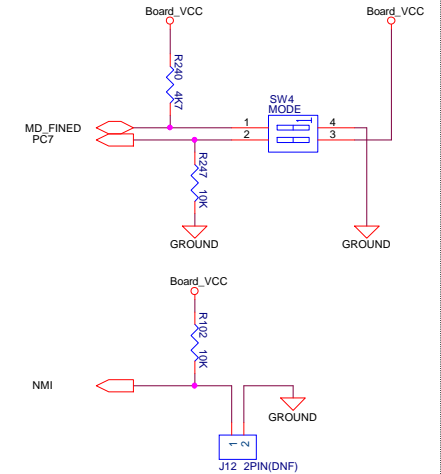
SW4 Pin1	SW4 Pin2	Operating Mode
OFF	OFF	Single Chip Mode
OFF	ON	Single Chip Mode
ON	OFF	Boot Mode (SCI)
ON	ON	USB Boot Mode

Default setting of SW4.

SW4	Default
Pin1	OFF
Pin2	OFF

Power Configuration for USB Boot Mode

J12	Power Configuration
Open	Bus Powered
Shorted Pin	Self Powered



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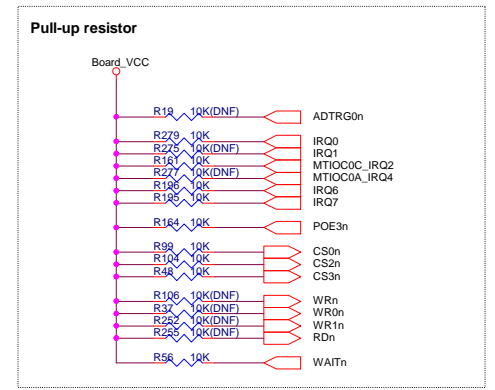
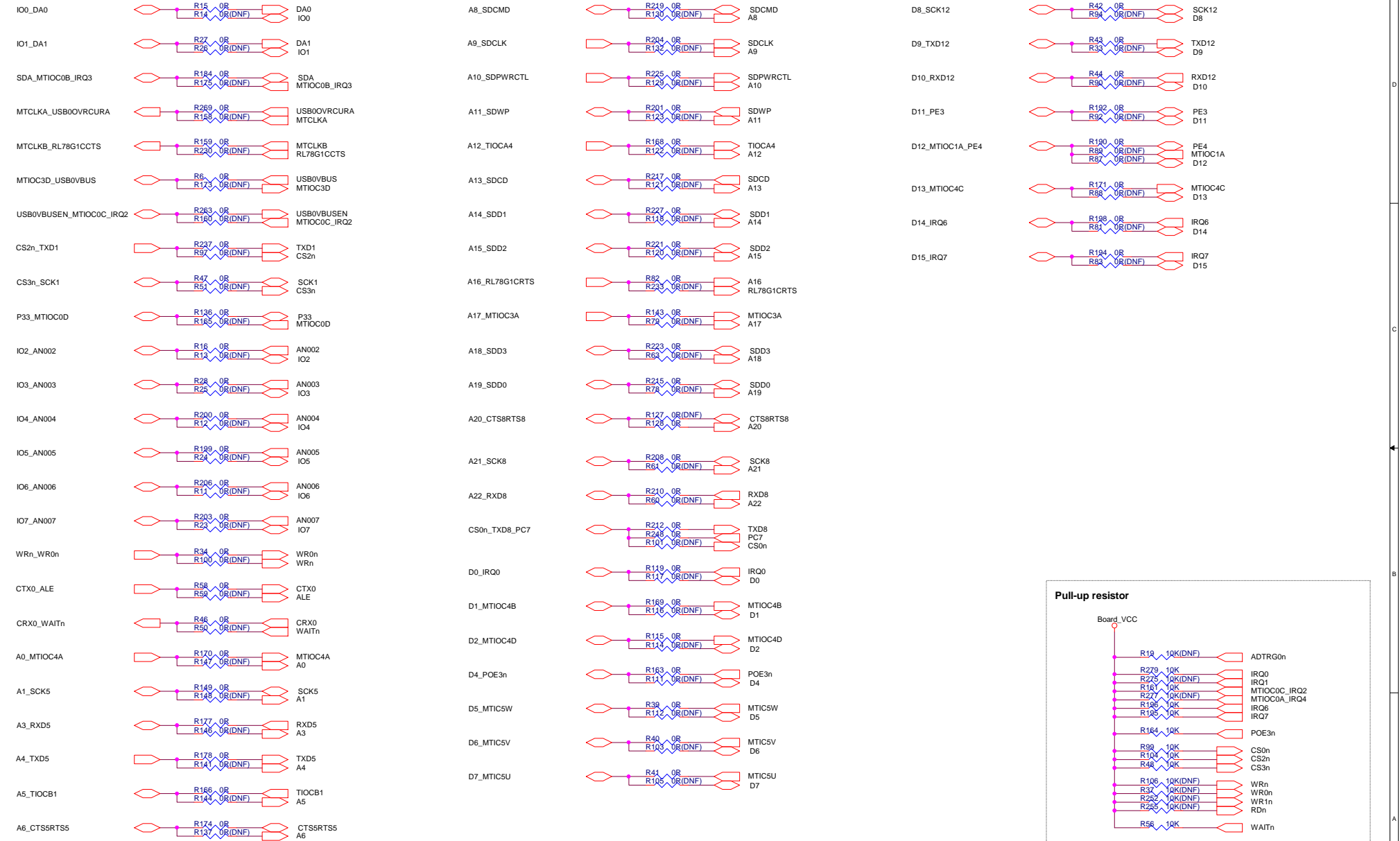
Title RSKRX231 [PSU, Reset, Switches, LEDs, MCU Mode]

Size Document Number R20UT3026EG0100

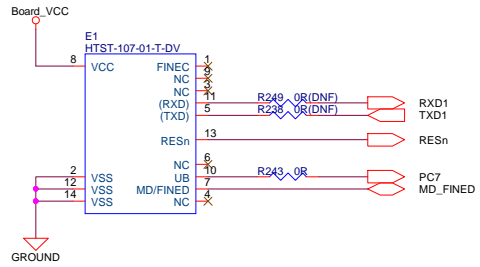
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MCU Pin Function Select

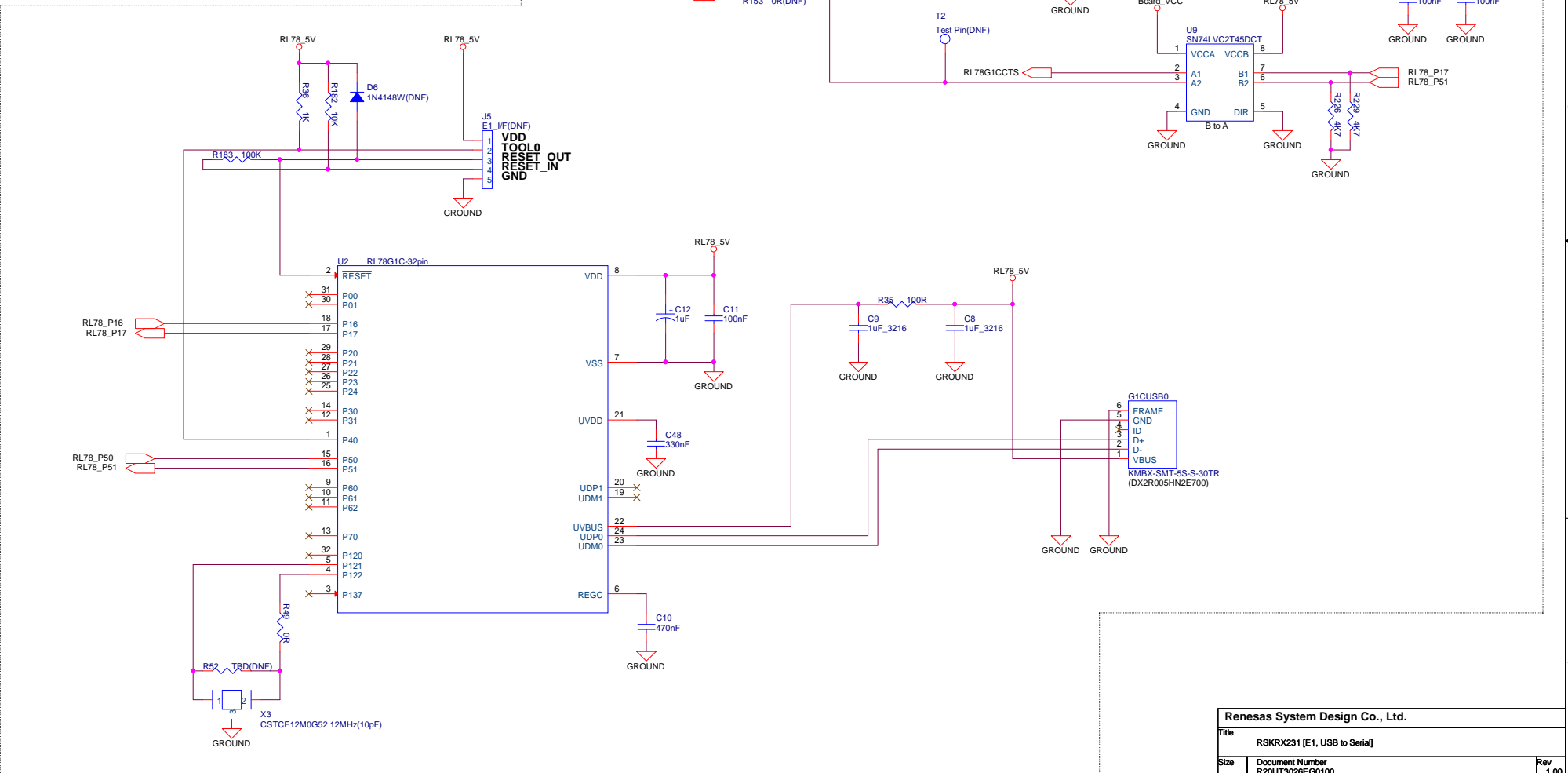
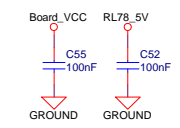
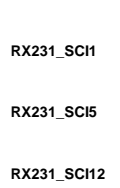


E1 Emulator



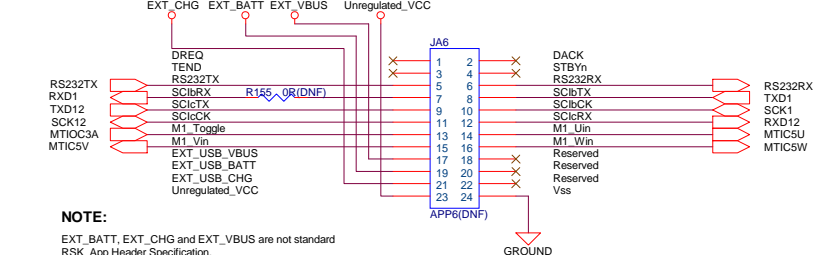
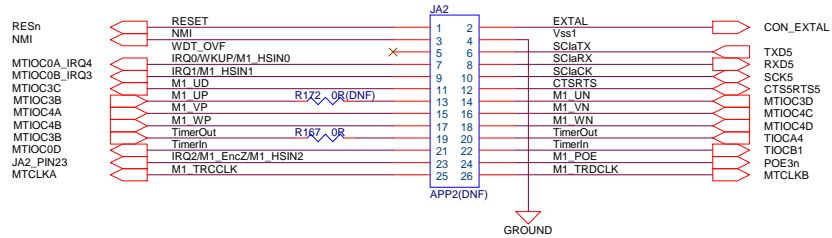
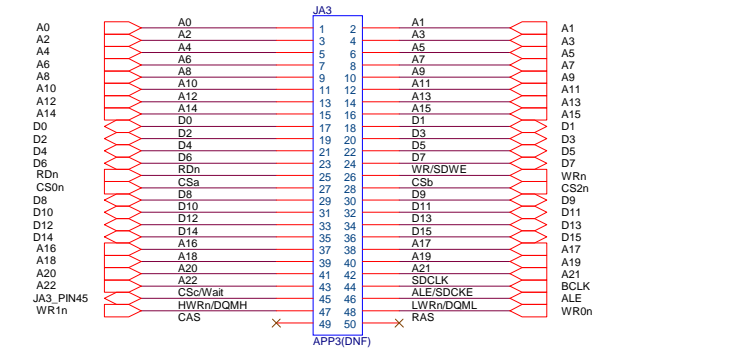
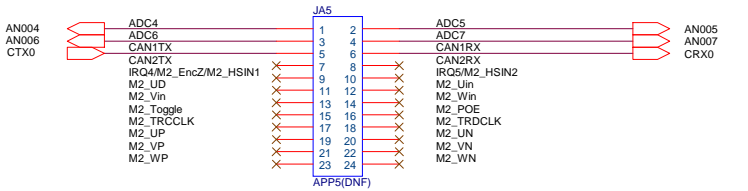
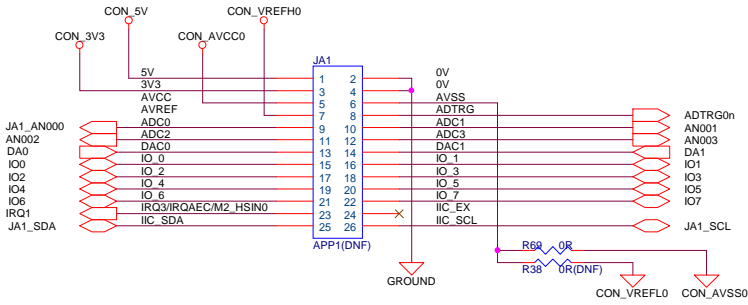
USB to Serial Interface

To App Header

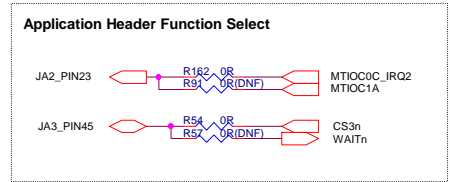
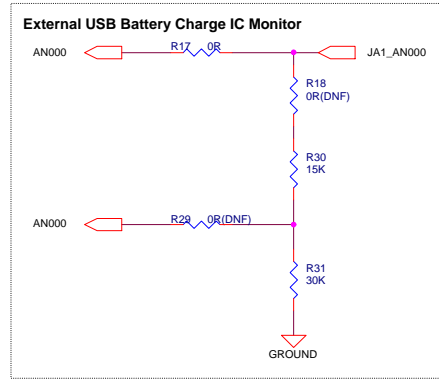


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Application Headers

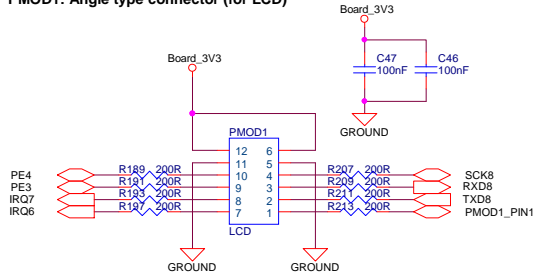


NOTE:
EXT_BATT, EXT_CHG and EXT_VBUS are not standard RSK App Header Specification. These headers are special function for USB Battery Charge.

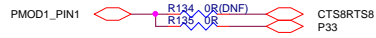


Pmod connectors

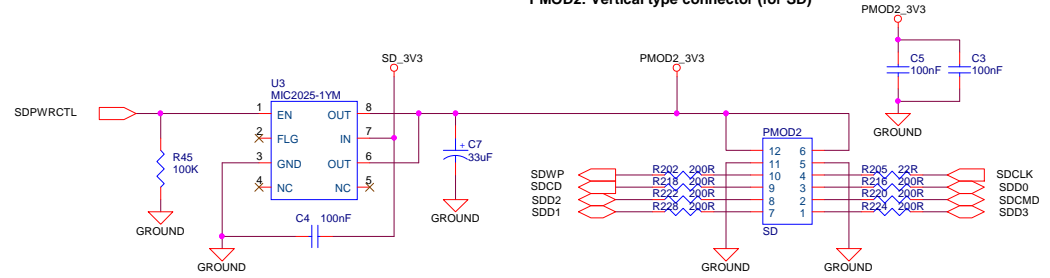
PMOD1: Angle type connector (for LCD)



Pmod Function Select



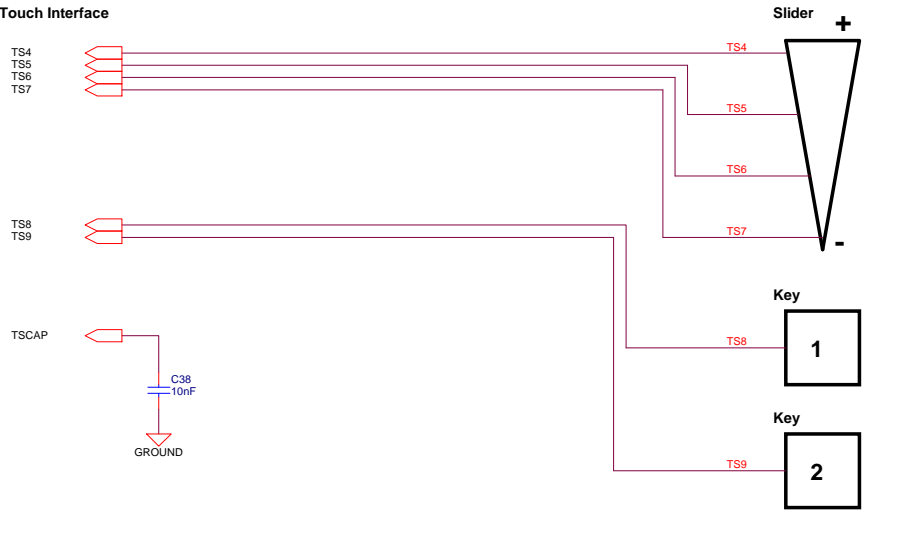
PMOD2: Vertical type connector (for SD)



Note:

When Pmod-SD is connected, please add the 10pF capacitor to SDCLK line.

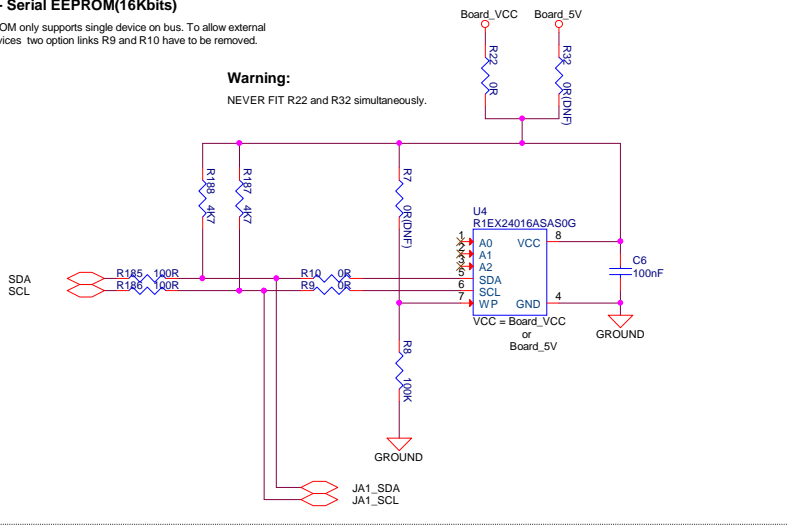
Touch Interface



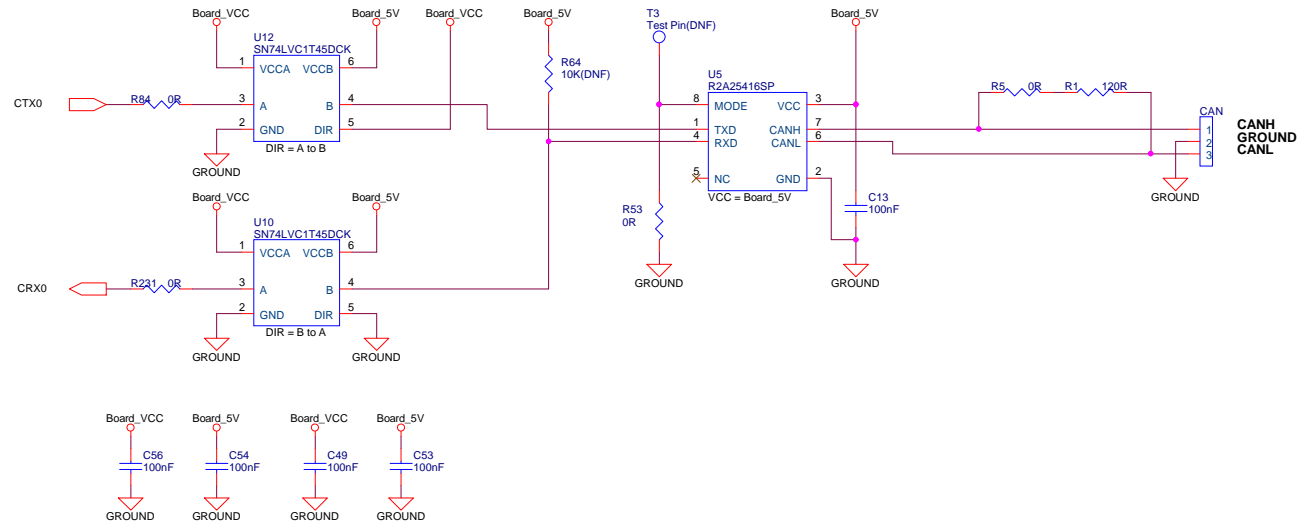
IIIC- Serial EEPROM(16Kbits)

EEPROM only supports single device on bus. To allow external IIC devices two option links R9 and R10 have to be removed.

Warning:
NEVER FIT R22 and R32 simultaneously.

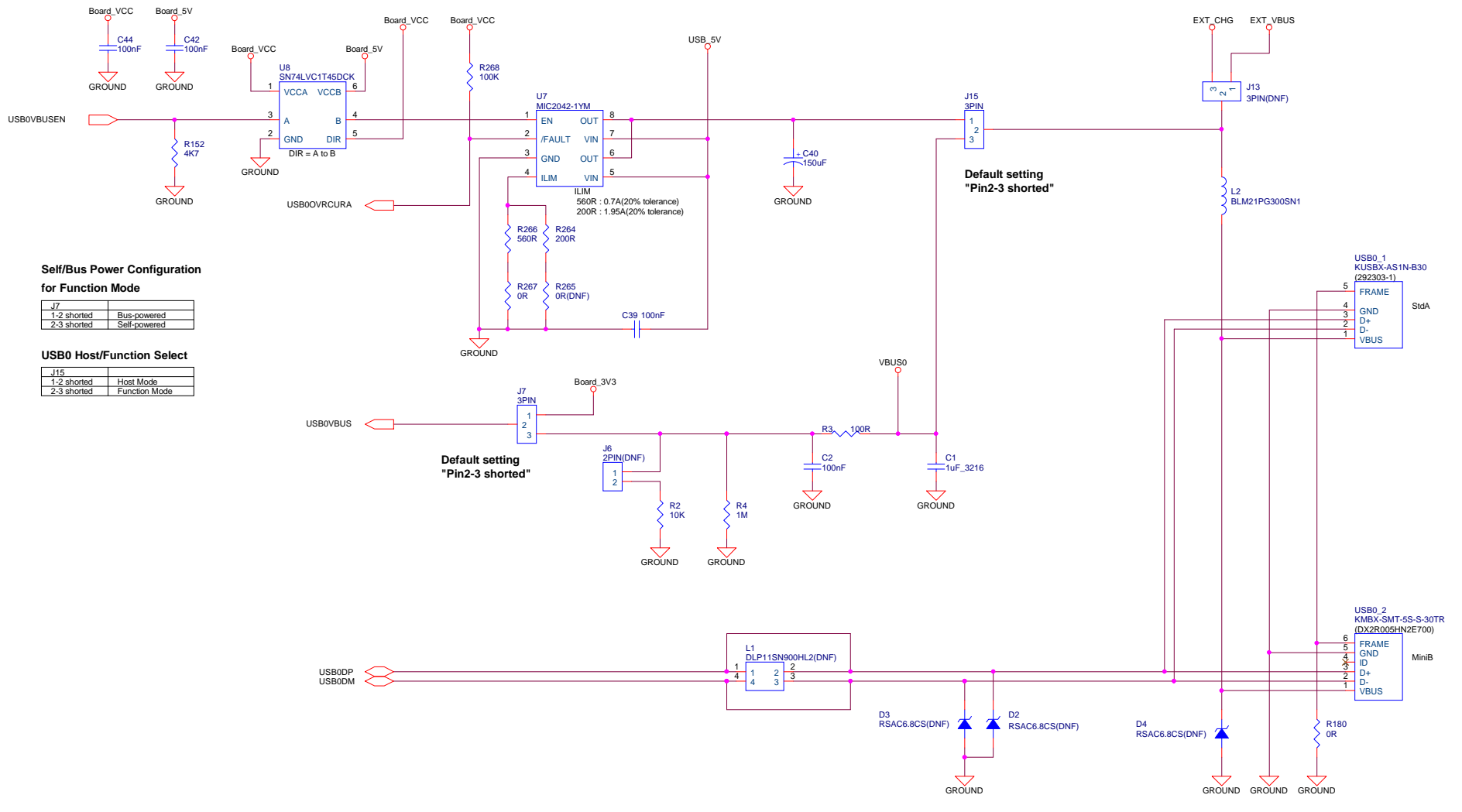


CAN



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USB0 Host/Function



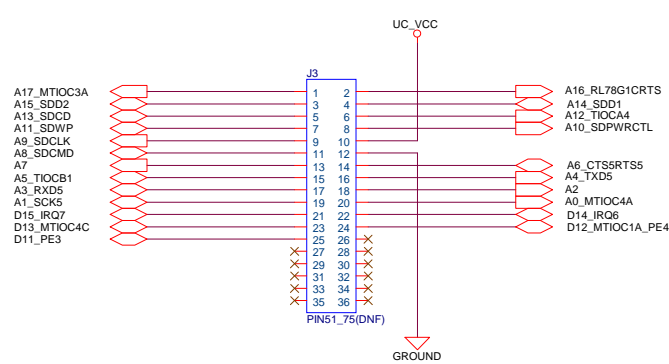
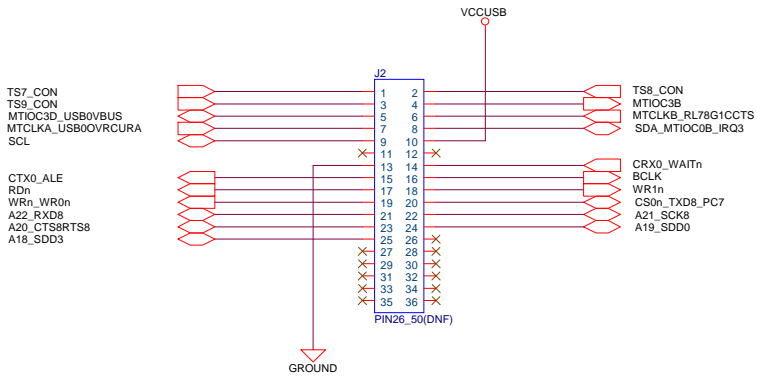
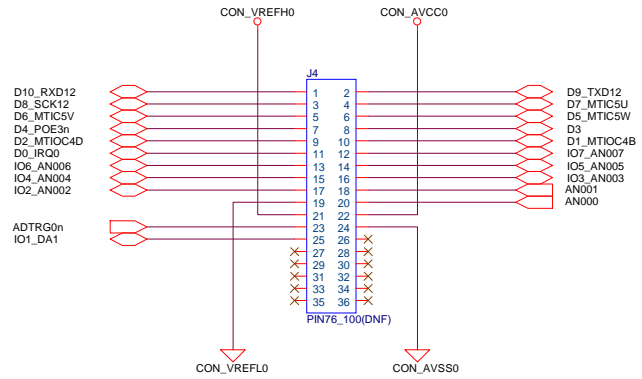
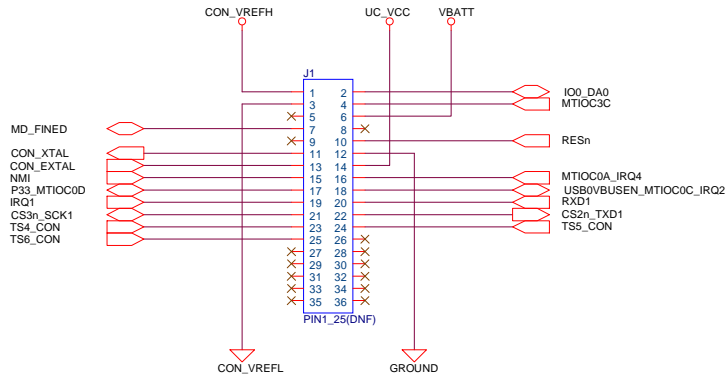
Self/Bus Power Configuration for Function Mode

J7	
1-2 shorted	Bus-powered
2-3 shorted	Self-powered

USB0 Host/Function Select

J15	
1-2 shorted	Host Mode
2-3 shorted	Function Mode

Micon Pin Headers



Revision History

REV	DATE	PAGE	DESCRIPTION
1.00	10.08.2015	---	1st release edition.

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