

Renesas Starter Kit for RX111
CPU Board Schematics

REV	REF	DATE	DRAWN BY
1.00	Release	13.06.2013	YOI

PAGE	DESCRIPTION
1	INDEX
2	RX111 Microcontroller
3	PSU, Reset, Switches, LEDs
4	E1 Emulator, MCU Mode Setting, MCU Pin Function Select
5	Virtual COM Interface
6	Application Headers, Header Function Select, Pmod, Pmod Header Function Select
7	IIC EEPROM, LIN
8	USB
9	Microcontroller Pin Headers

Note:

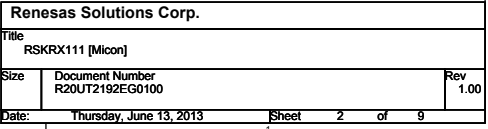
- R : Fixed Resistor
- RV : Potentiometer
- U : Integrated Circuit
- X : Crystal
- RES : Reset Switch
- SW : Switch
- LED : Light Emitting Diode
- PWR : Power Jack
- J : Connector, Jumper

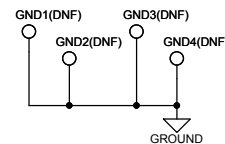
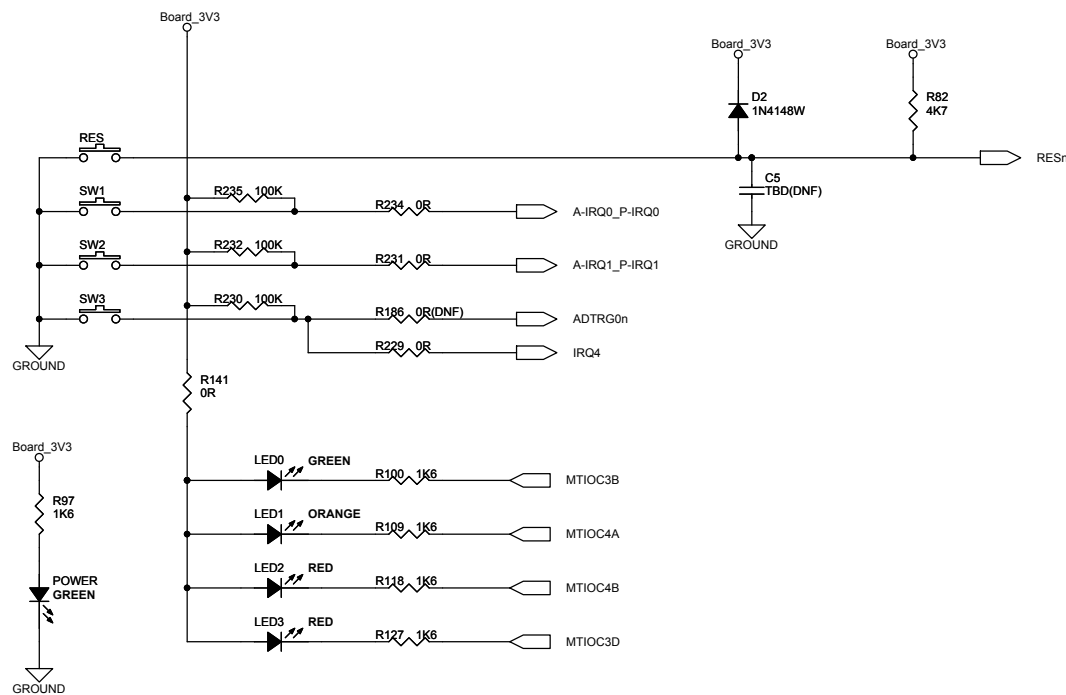
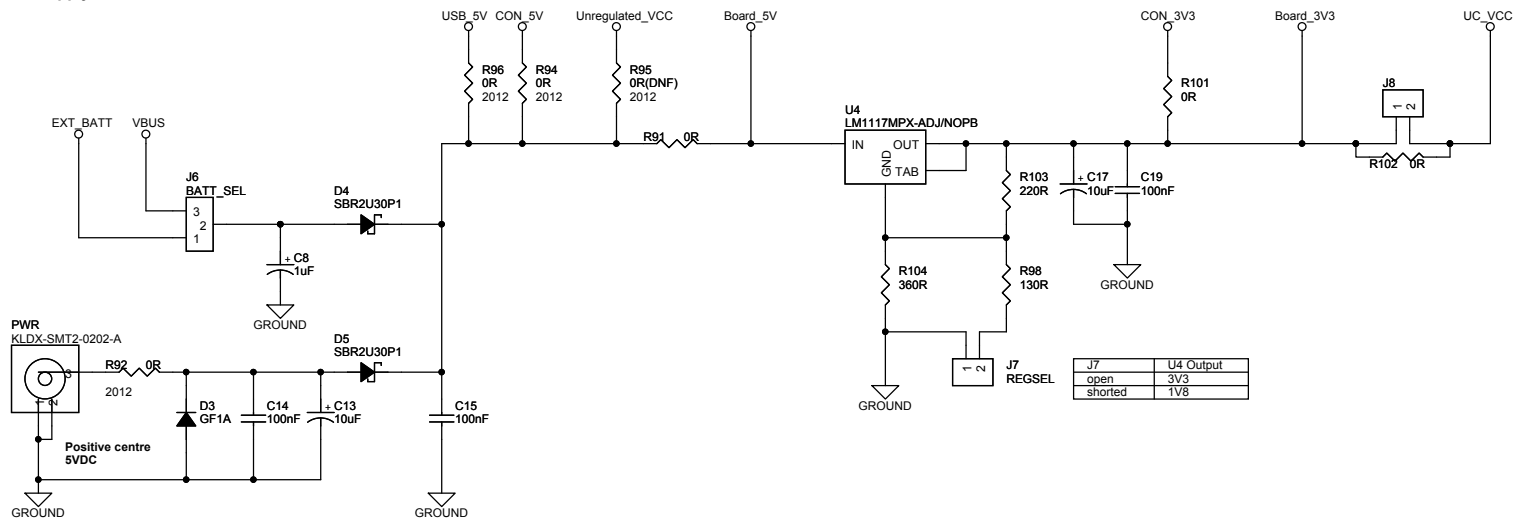
* "DNF" marking means that component does not fit by default.

Board Code:

R0K505111C000BE : WS/MP Board

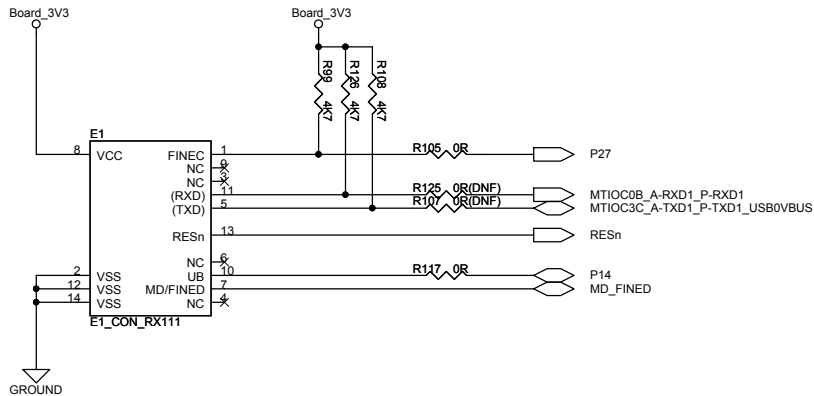
Note:
Microcontroller's pins are not described by the full pin function.
For full pin function details, refer to latest RX111 datasheet.



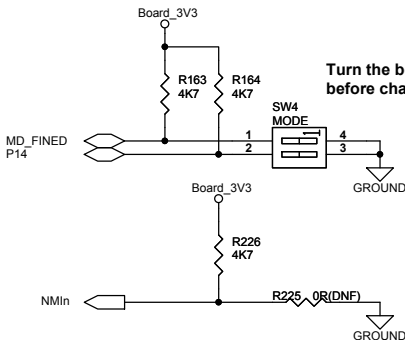


J7	U4 Output
open	3V3
shorted	1V8

E1 Emulator Interface



MCU Mode Settings



Turn the board power off before changing SW4 settings.

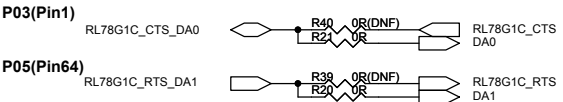
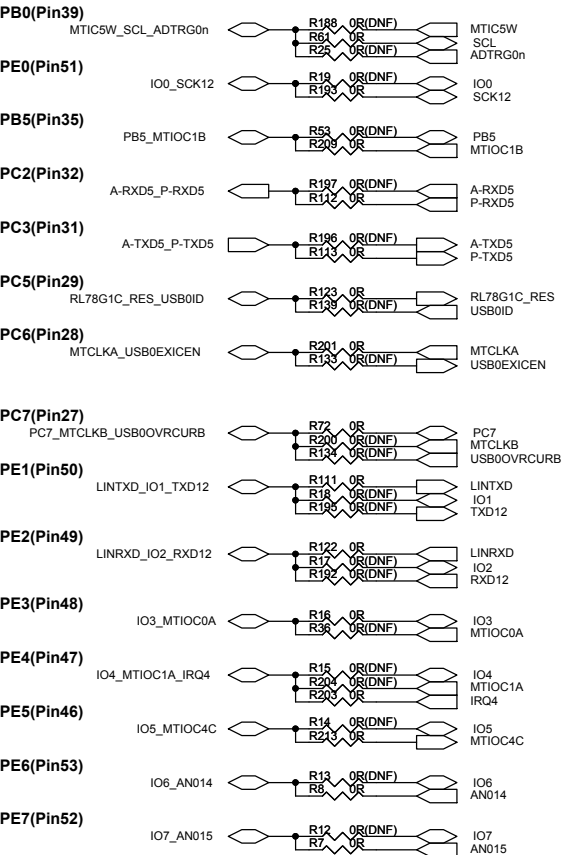
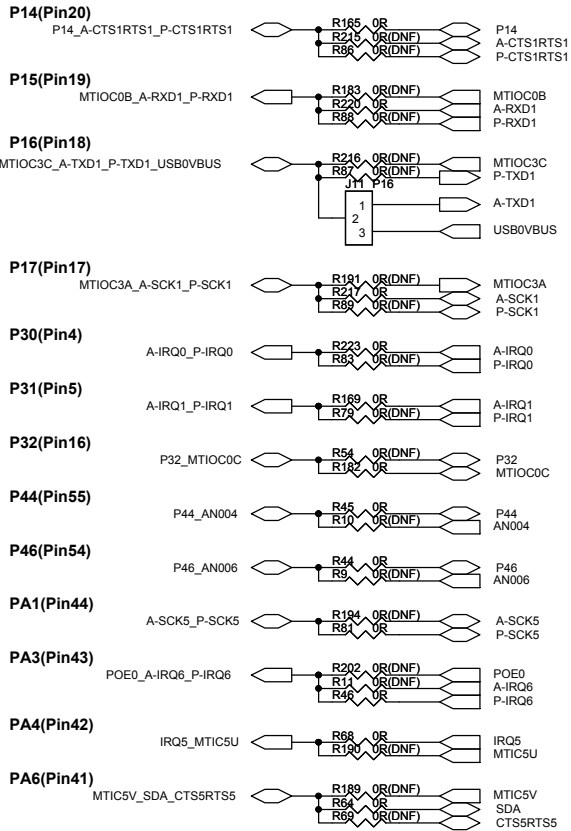
MCU Operating Mode Configuration

SW4 Pin1	SW4 Pin2	Operating Mode
OFF	Don't care	Single Chip Mode
ON	OFF	Boot Mode (SCI)
ON	ON	USB Boot Mode

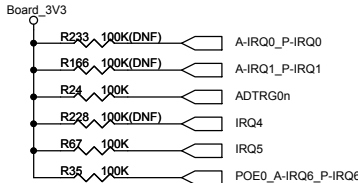
USB Boot Mode Power Configuration

R225	Power Configuration for USB Boot Mode
Fit	Self Powered
Remove	Bus Powered

MCU Pin Function Select



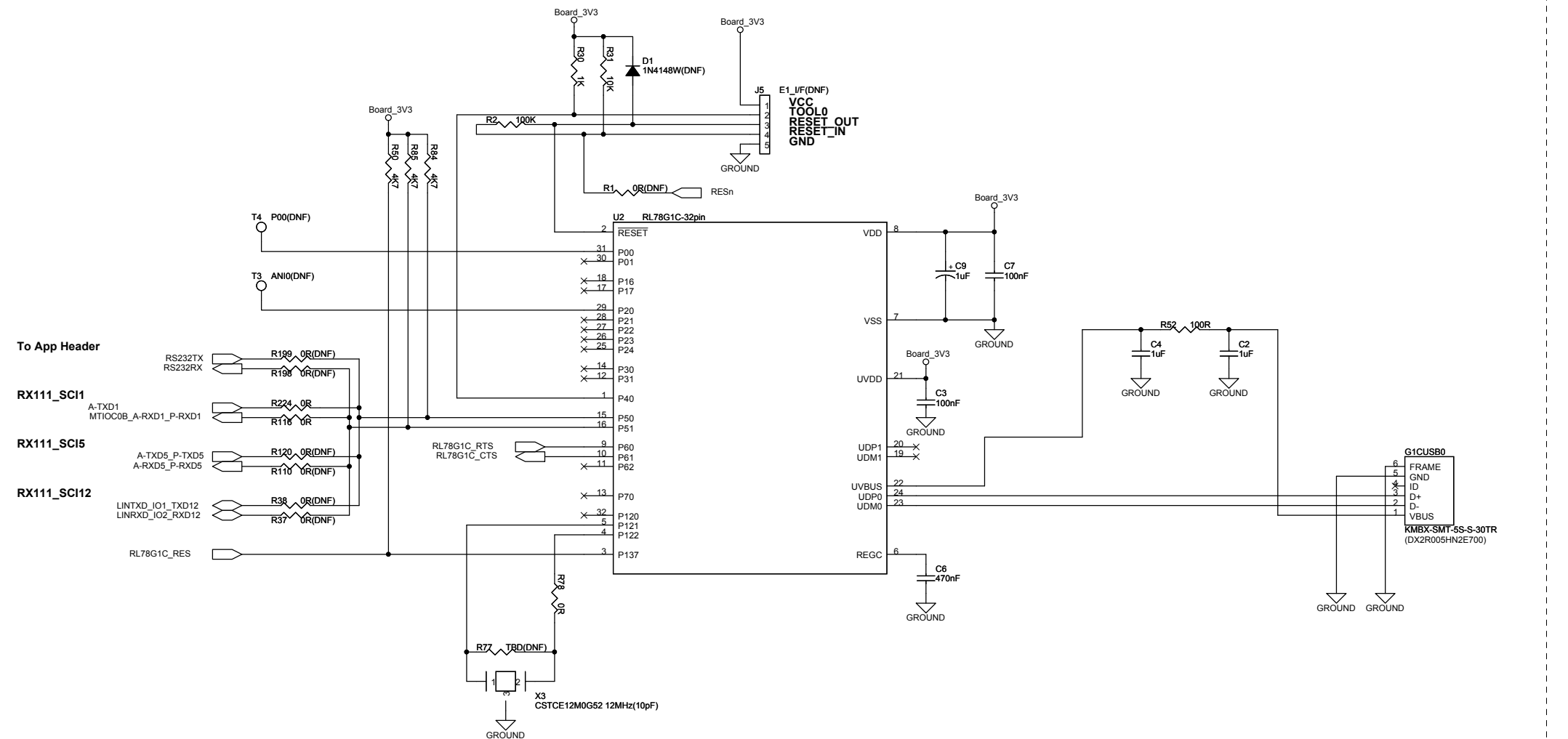
Option pull-up resistor



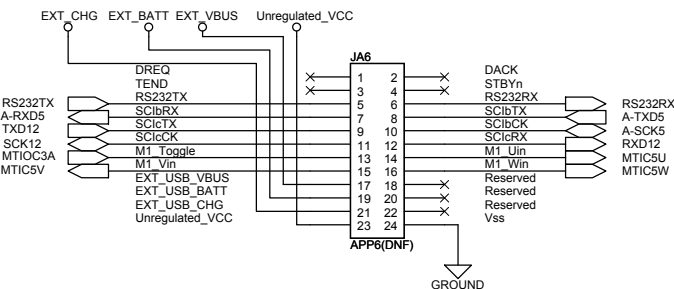
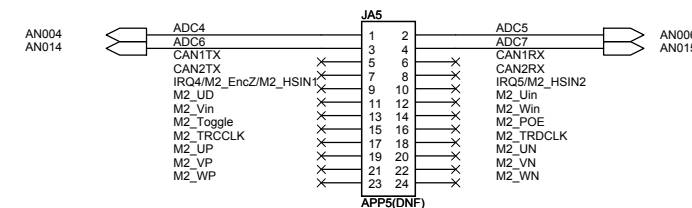
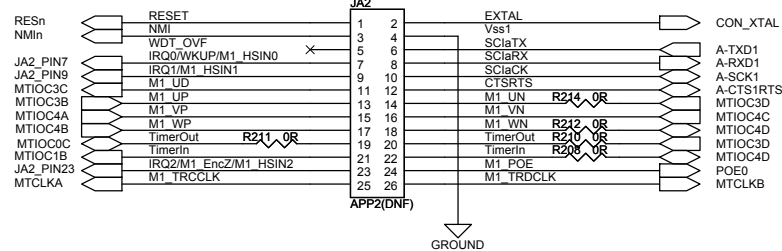
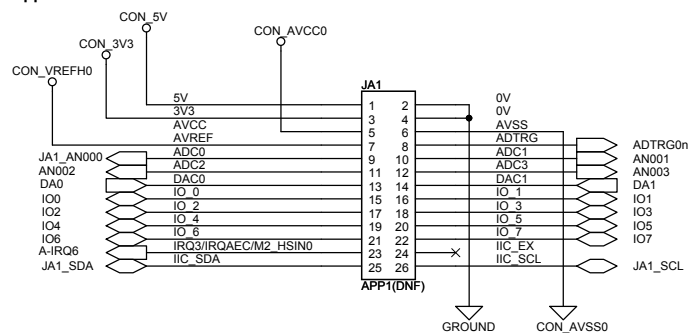
Renesas Solutions Corp.

Title RSKR111 [E1 Emulator, MCU Mode Setting, MCU Pin Function Select]		
Size	Document Number R20UT2192EG0100	Rev 1.00
Date:	Thursday, June 13, 2013	Sheet 4 of 9

Virtual COM Interface

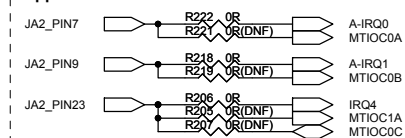


Application Headers

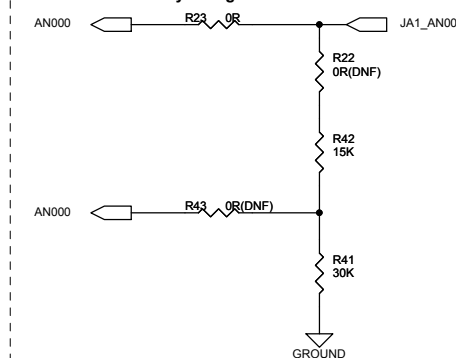


NOTE:
EXT_USB_BATT, EXT_USB_CHG and EXT_USB_VBUS are not standard RSK App Header Specification.
Normally, JA6.Pin17, JA6.Pin19 and JA6.Pin21 are reserved header.

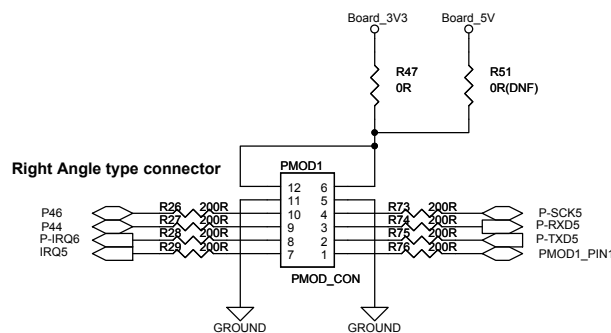
Application Header Function Select



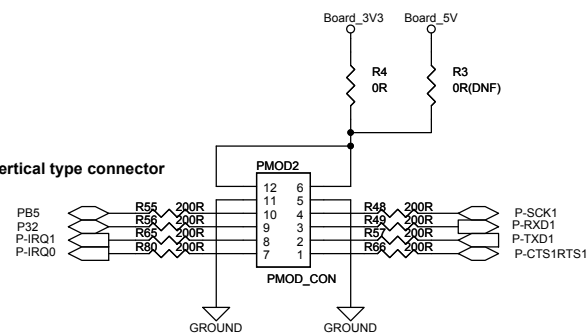
External USB Battery Charge IC Monitor



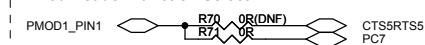
Pmod



Vertical type connector



PMod Header Function Select

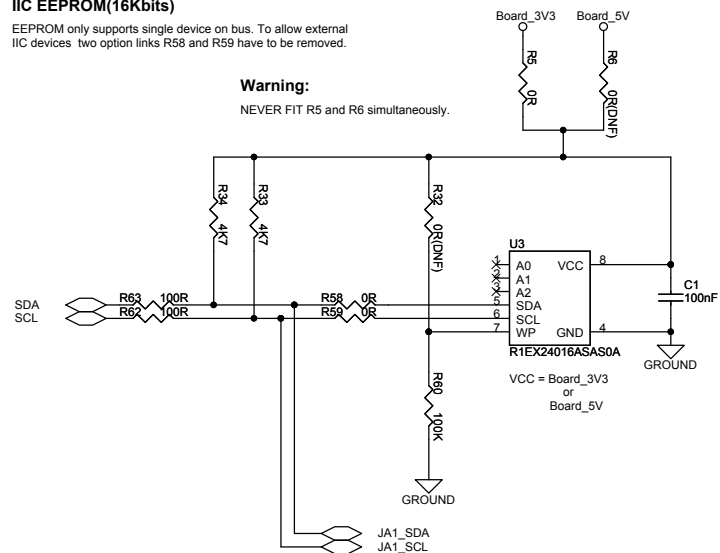


IIC EEPROM(16Kbits)

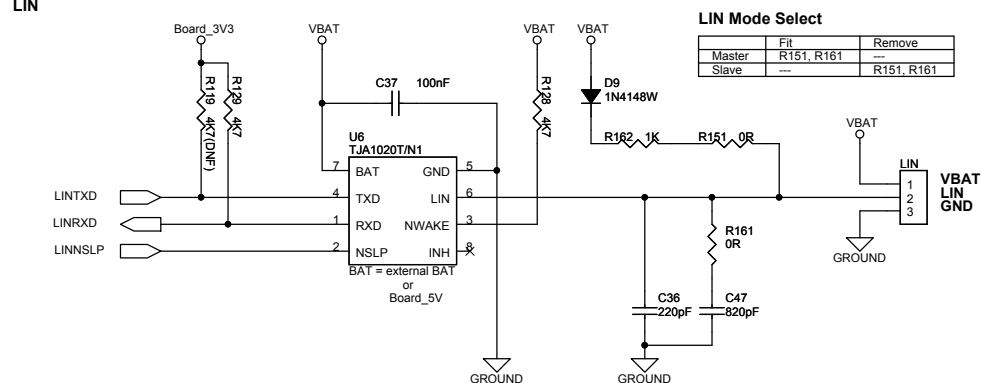
EEPROM only supports single device on bus. To allow external IIC devices two option links R58 and R59 have to be removed.

Warning:

NEVER FIT R5 and R6 simultaneously.



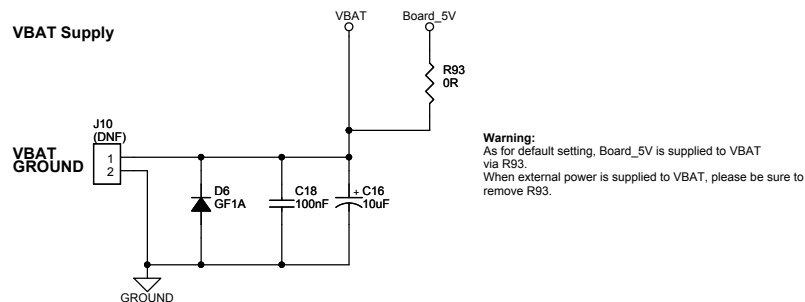
LIN



LIN Mode Select

	Fit	Remove
Master	R151, R161	---
Slave	---	R151, R161

VBAT Supply

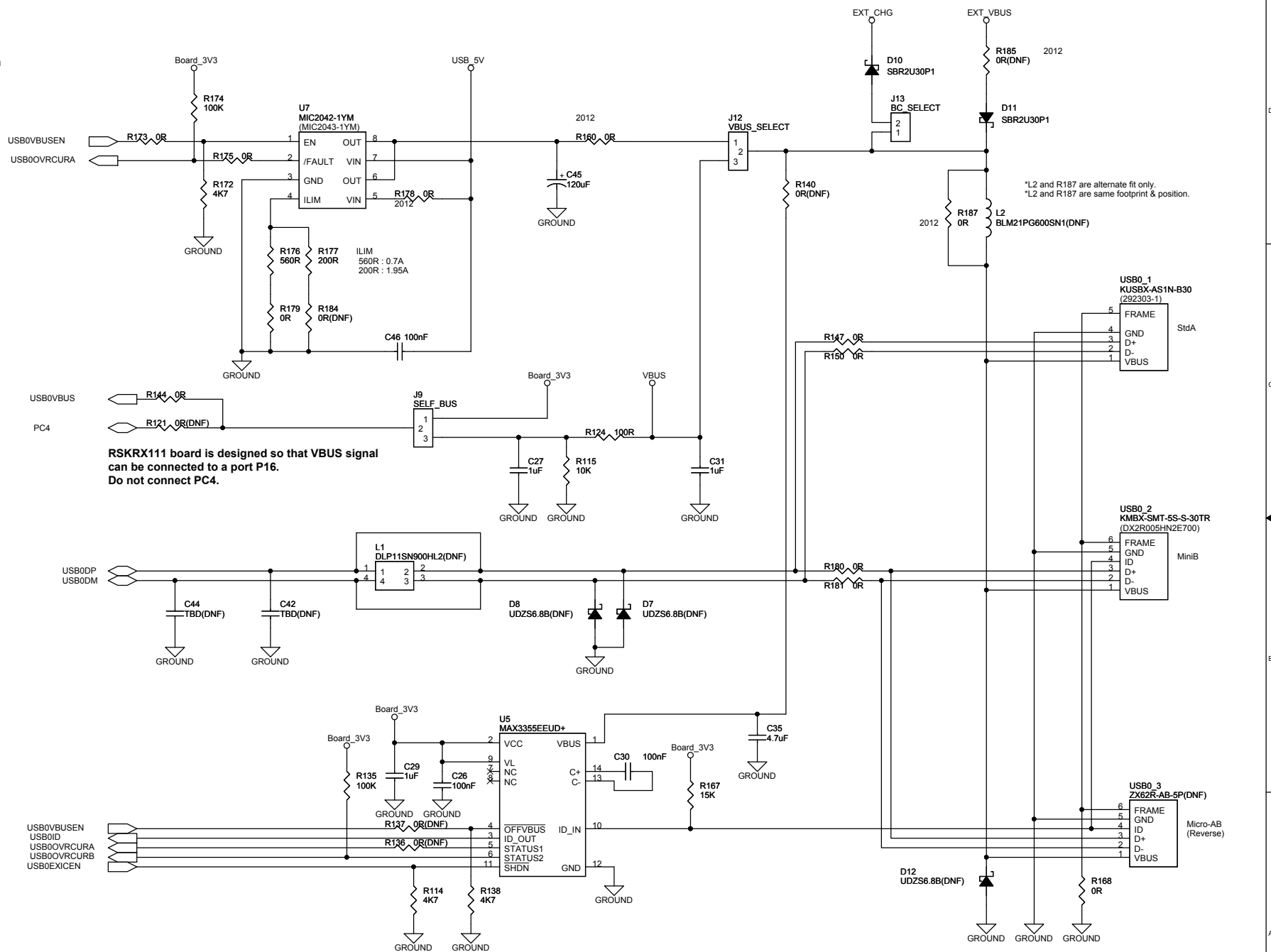


Warning:

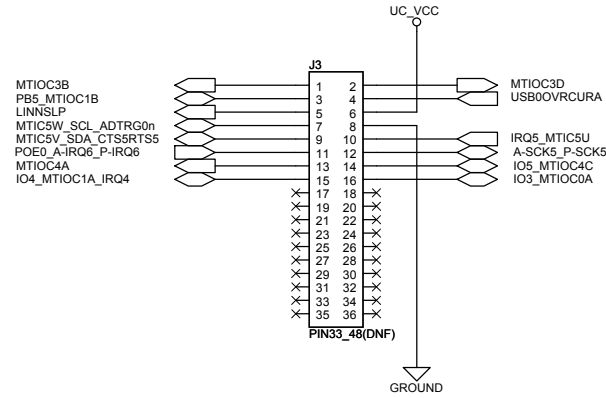
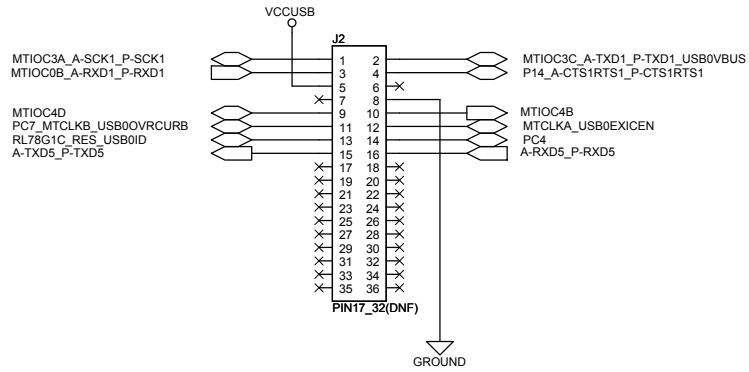
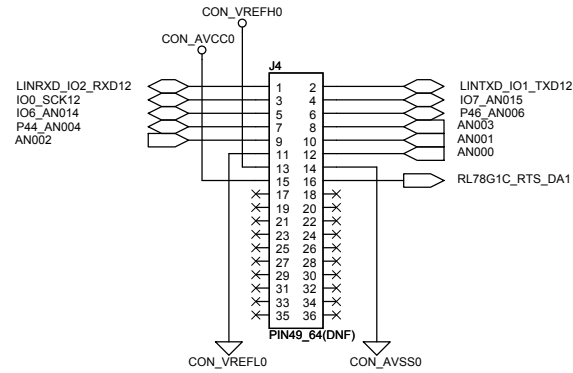
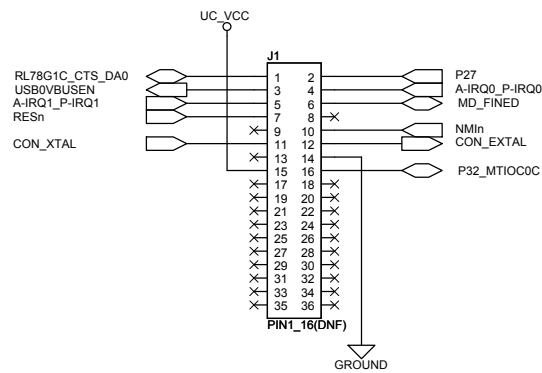
As for default setting, Board_5V is supplied to VBAT via R93. When external power is supplied to VBAT, please be sure to remove R93.

VBUS0 Self-powered/Bus-powered Configuration for Function Mode

J9	
1-2 shorted	Bus-powered
2-3 shorted	Self-powered



Microcontroller Pin Headers



Revision History

REV	DATE	PAGE	DESCRIPTION
1.00	13.06.2013	---	1st release edition.