

Renesas Starter Kit for RX63T(144pin) CPU Board Schematics

REV	REF	DATE	DRAWN BY
1.00	Release	08.01.2014	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

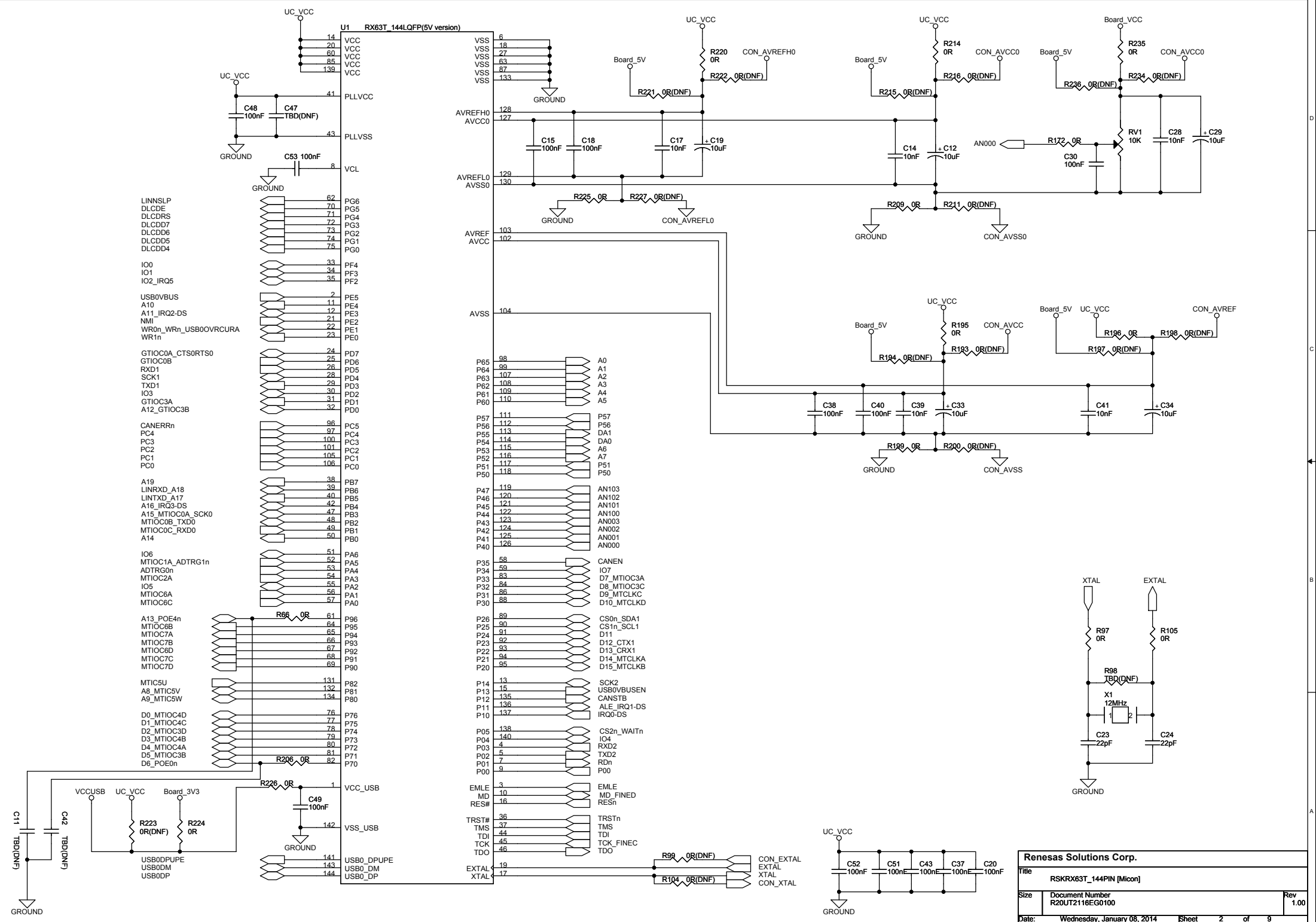
* "DNF" marking means that component does not fit by default.

Board Variation:

R0K5563THC000BE : MP Board

REEL Drawing No. D011662_04

Renesas Solutions Corp.			
Title			
RSKRX63T_144PIN [INDEX]			
Size	Document Number	Rev	
	R20UT2116EG0100	1.00	
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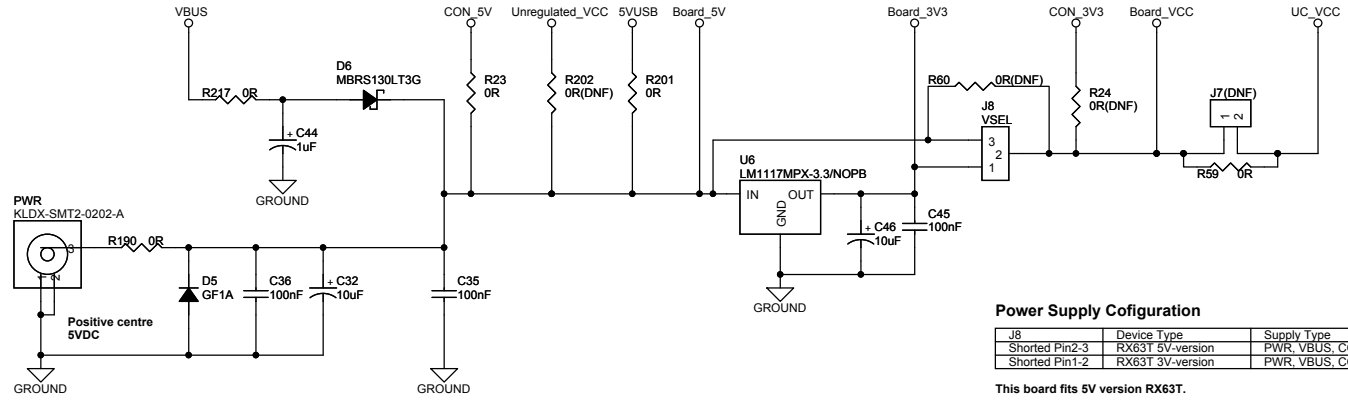
- LINNSLP
 DLCDDE
 DLCDRS
 DLCD7
 DLCD6
 DLCD5
 DLCD4
 IO0
 IO1
 IO2_IRQ5
 USB0VBUS
 A10
 A11_IRQ2-DS
 NMI
 WR0n_WRn_USB0VRCURA
 WR1n
 GTIOC0A_CTS0RTS0
 GTIOC0B
 RXD1
 SCK1
 TXD1
 IO3
 GTIOC3A
 A12_GTIOC3B
 CANERRn
 PC4
 PC3
 PC2
 PC1
 PC0
 A19
 LINRXD_A18
 LINTXD_A17
 A16_IRQ3-DS
 A15_MTI0C0A_SCK0
 MTIOC0B_TXD0
 MTIOC0C_RXD0
 A14
 IO6
 MTIOC1A_ADTRG1n
 ADTRG0n
 MTIOC2A
 IO5
 MTIOC6A
 MTIOC6C
 A13_POE4n
 MTIOC6B
 MTIOC7A
 MTIOC7B
 MTIOC6D
 MTIOC7C
 MTIOC7D
 MTICSU
 A8_MTICSV
 A9_MTICSV
 D0_MTI0C4D
 D1_MTI0C4C
 D2_MTI0C3D
 D3_MTI0C4B
 D4_MTI0C4A
 D5_MTI0C3B
 D6_POE0n

- P66
 P65
 PG4
 PG3
 PG2
 PG1
 PG0
 PF4
 PF3
 PF2
 PE5
 PE4
 PE3
 PE2
 PE1
 PE0
 PD7
 PD6
 PD5
 PD4
 PD3
 PD2
 PD1
 PD0
 PC5
 PC4
 PC3
 PC2
 PC1
 PC0
 PB7
 PB6
 PB5
 PB4
 PB3
 PB2
 PB1
 PB0
 PA6
 PA5
 PA4
 PA3
 PA2
 PA1
 PA0
 P96
 P95
 P94
 P93
 P92
 P91
 P90
 P82
 P81
 P80
 P76
 P75
 P74
 P73
 P72
 P71
 P70
 P14
 P13
 P12
 P11
 P10
 P05
 P04
 P03
 P02
 P01
 P00
 EMLLE
 MD
 RES#
 TRST#
 TMS
 TDI
 TCK
 TDO
 EXTAL
 XTAL

- A0
 A1
 A2
 A3
 A4
 A5
 P57
 P56
 DA1
 DA0
 A6
 A7
 P51
 P50
 AN103
 AN102
 AN101
 AN100
 AN003
 AN002
 AN001
 AN000
 CANEN
 IO7
 D7_MTI0C3A
 D8_MTI0C3C
 D9_MTLCKC
 D10_MTLCKD
 CS0n_SDA1
 CS1n_SCL1
 D11
 D12_CTX1
 D13_CRX1
 D14_MTLCKA
 D15_MTLCKB
 SCK2
 USB0VBUSEN
 CANSTB
 ALE_IRQ1-DS
 IRQ0-DS
 CS2n_WAITn
 IO4
 RXD2
 TXD2
 RDn
 P00
 EMLE
 MD_FINED
 RESn
 TRSTn
 TMS
 TDI
 TCK_FINEC
 TDO

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Power Supply Unit

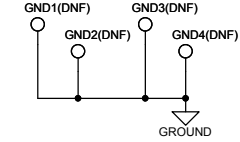


Power Supply Configuration

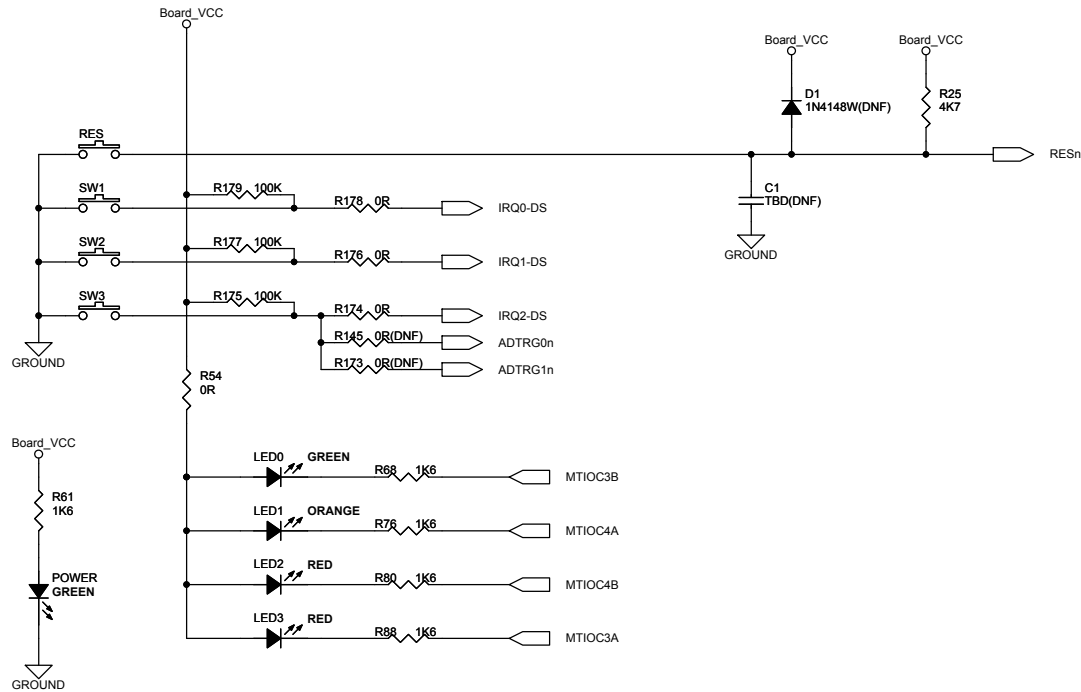
J8	Device Type	Supply Type
Shorted Pin2-3	RX63T 5V-version	PWR, VBUS, CON_5V, E1(5V)
Shorted Pin1-2	RX63T 3V-version	PWR, VBUS, CON_3V3, E1(3V3)

This board fits 5V version RX63T.

Ground Test Point

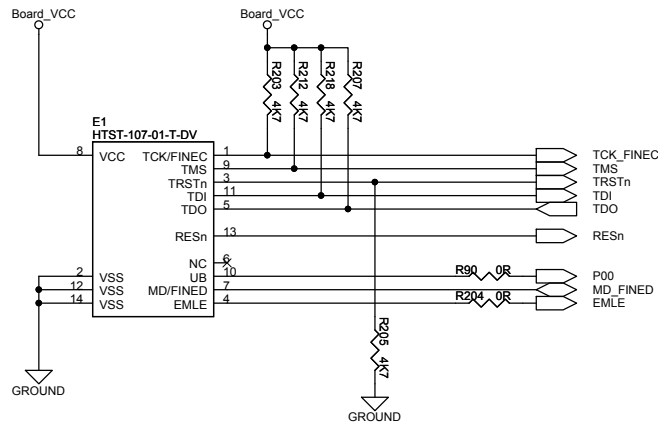


Switches, LEDs, RESET

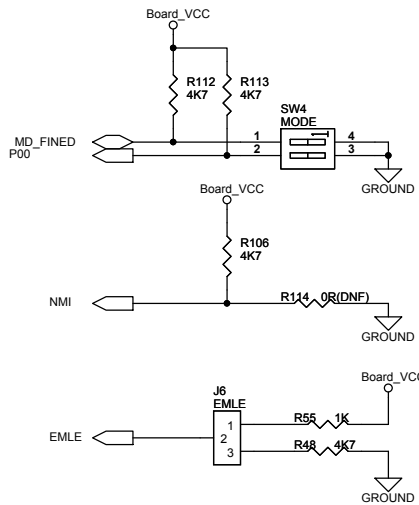


Renesas Solutions Corp.		
Title: RSKRX63T_144PIN [PSU, Reset, Switches, LEDs]		
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E1 Emulator Interface



MCU Mode Settings



MCU Operating Mode Configuration

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

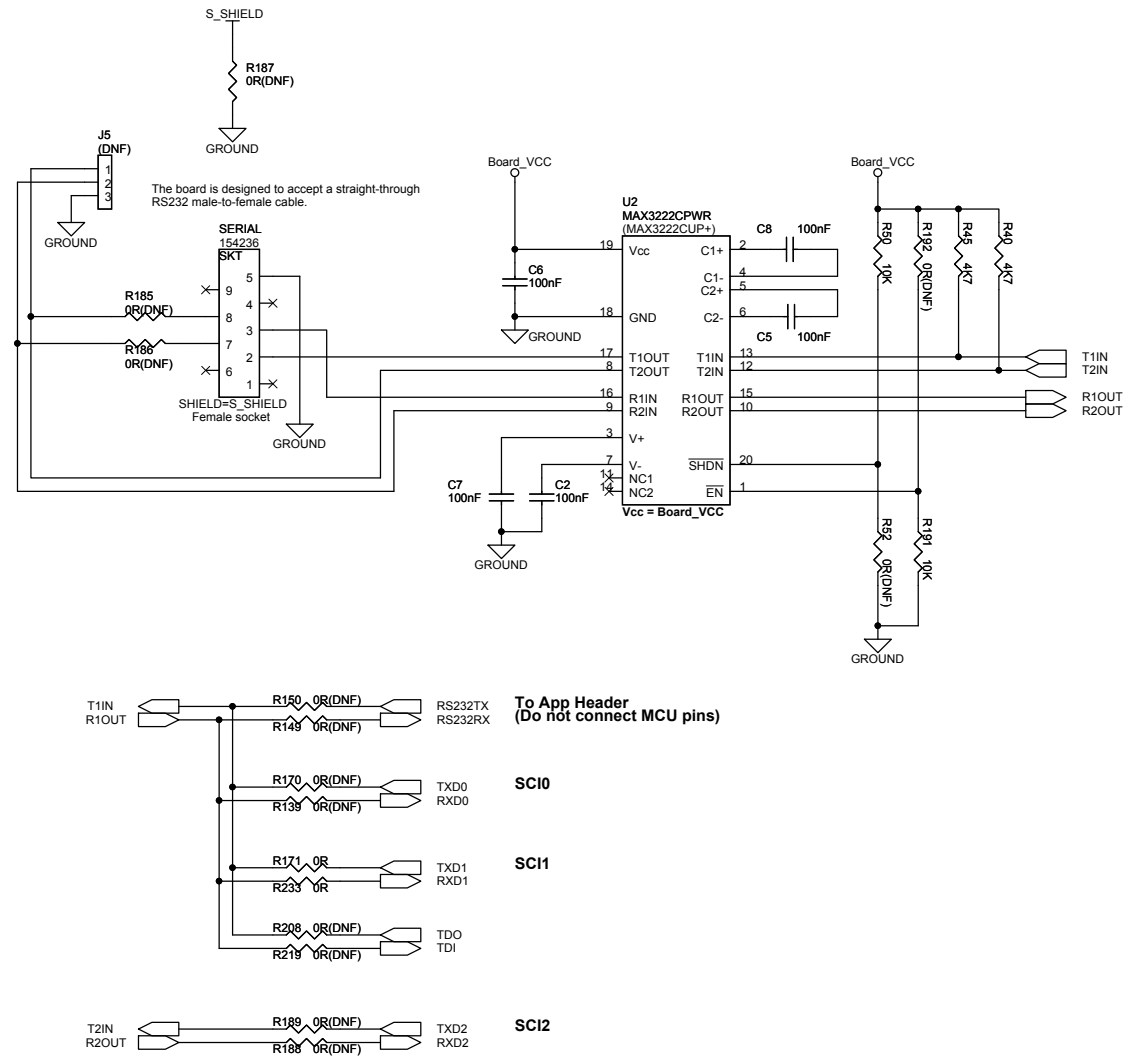
USB Boot Mode Power Configuration

R114	Power Configuration for USB Boot Mode
Fill	Self Powered
Remove	Bus Powered

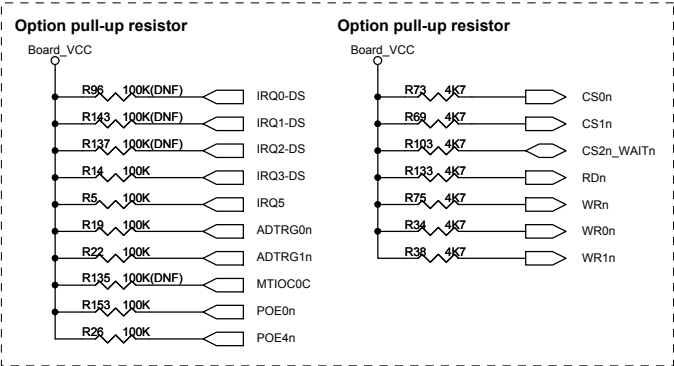
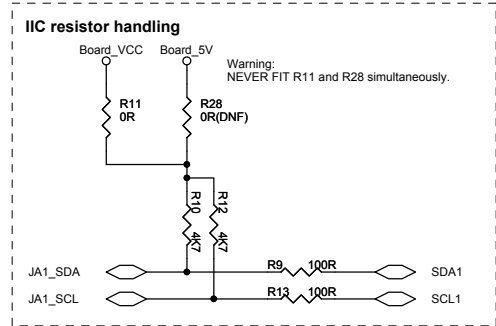
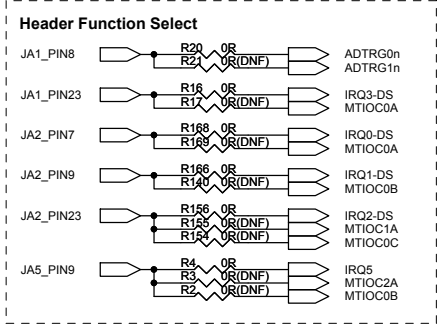
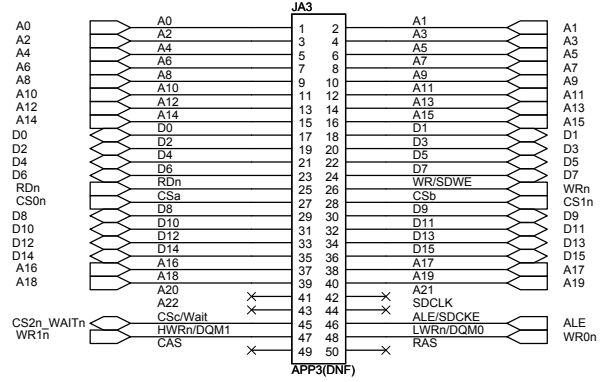
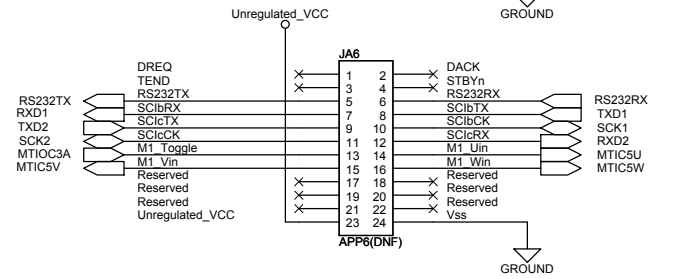
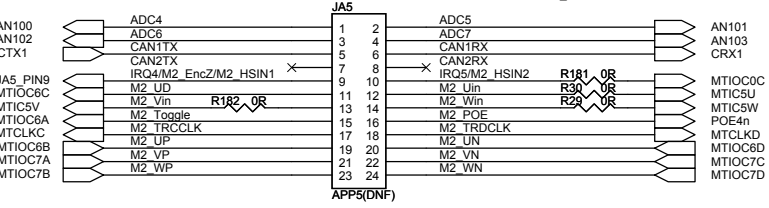
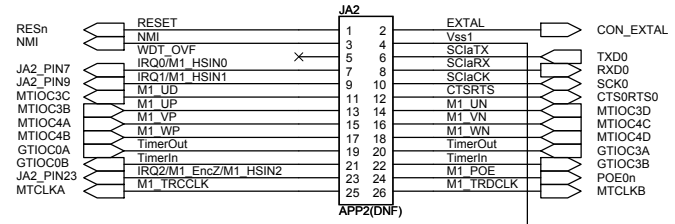
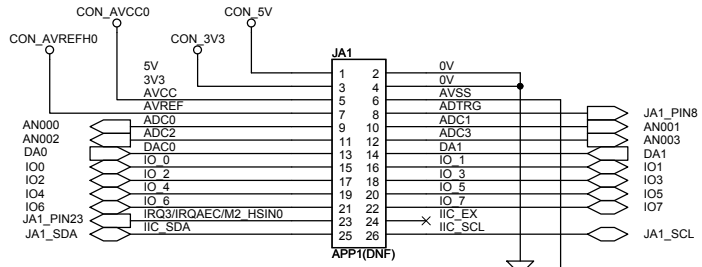
Emulator Configuration

J6	Emulator Configuration
Shorted Pin1-2	E1 debugging with Hot plug-in
Shorted Pin2-3	E1 normal debugging
all open	Microcontroller single operation (without E1)

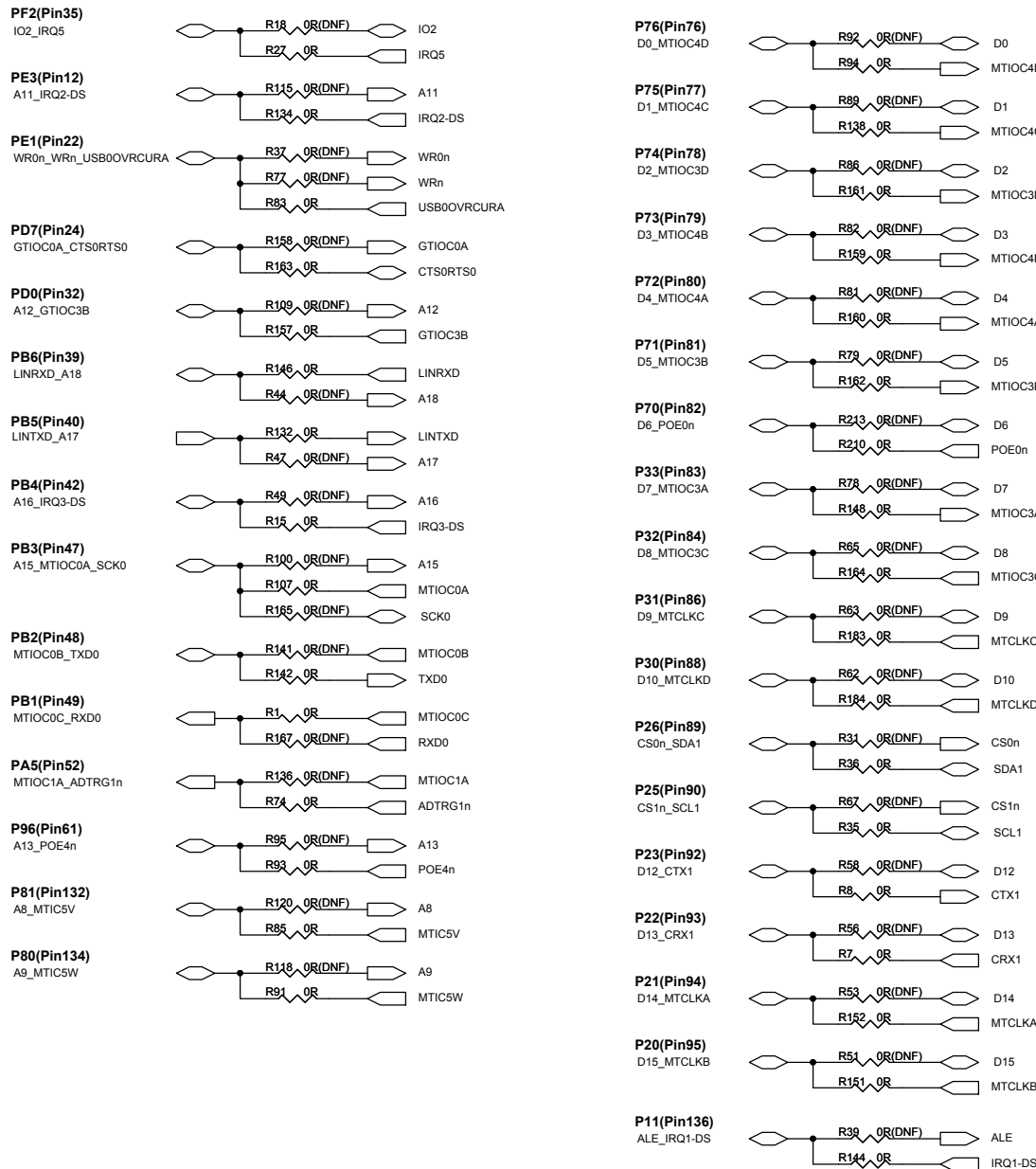
Serial Port

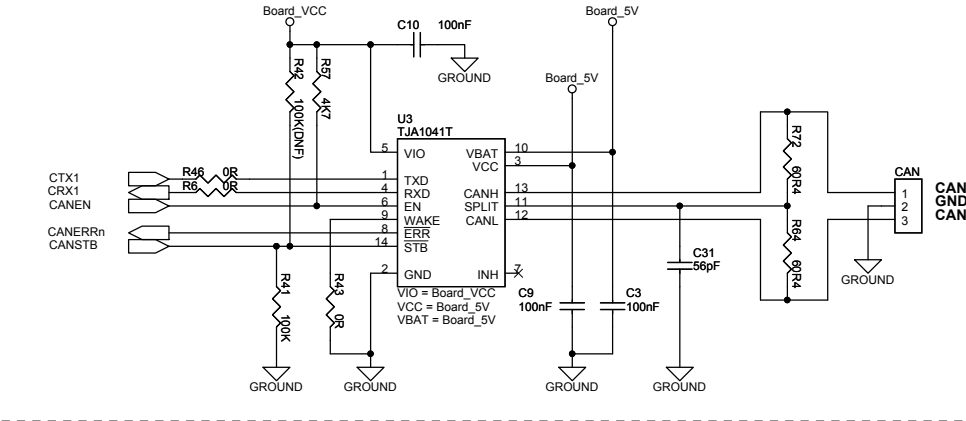
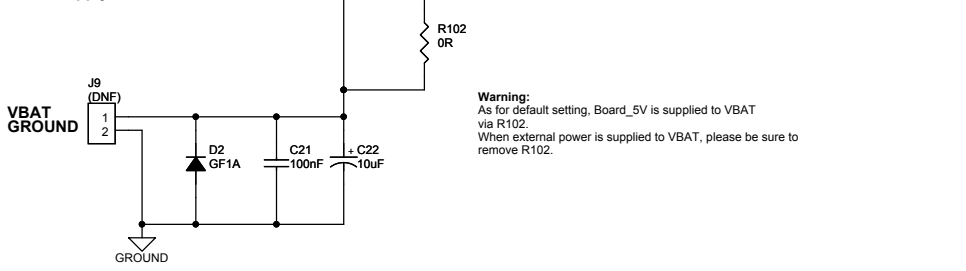
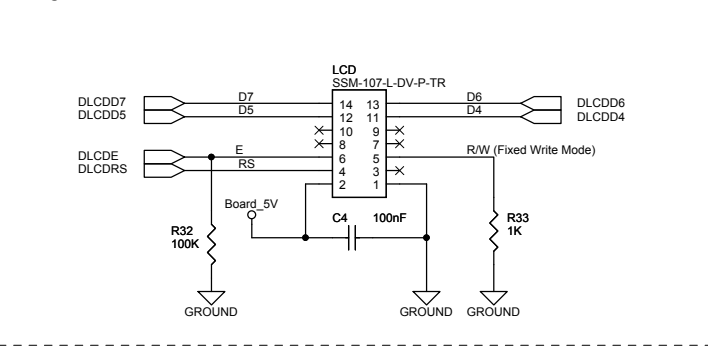
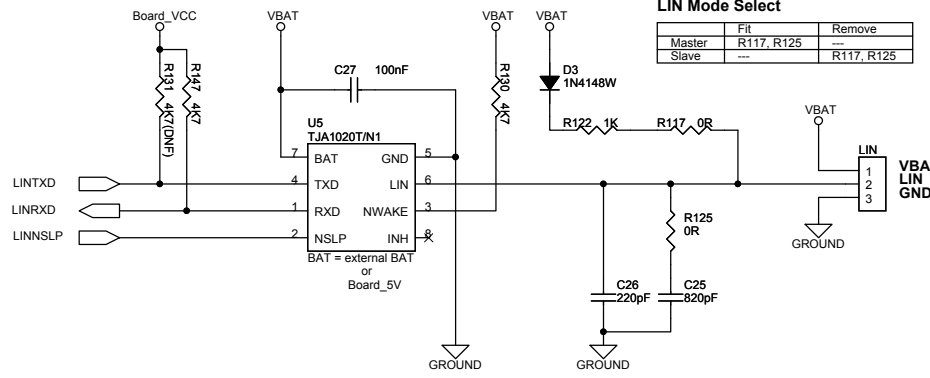


Application Headers



MCU Pin Function Select





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

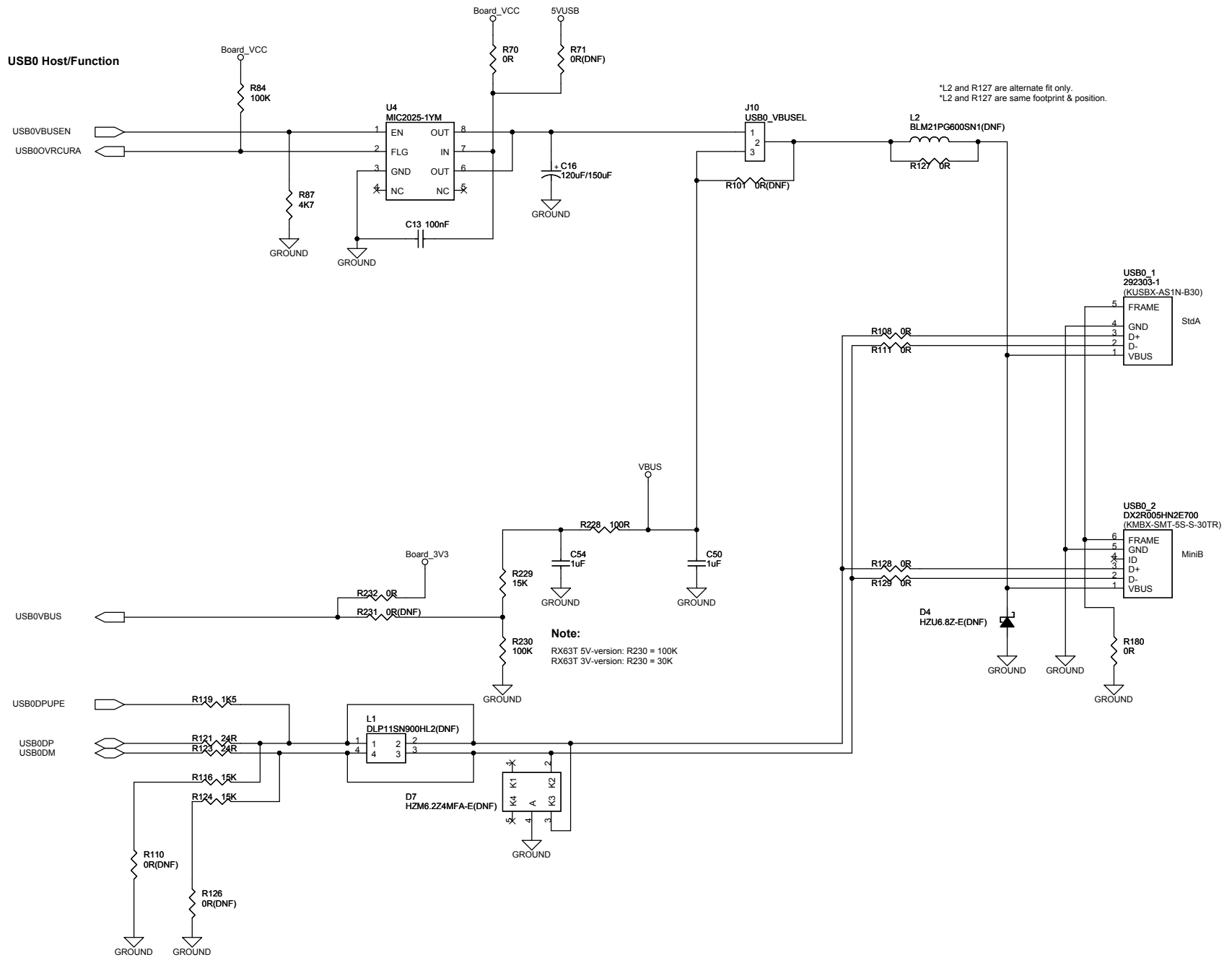
R231	R232	Self-powered
Fit	Remove	Self-powered
Remove	Fit	Bus-powered

VBUS0 Host/Function Select

J10	
1-2 shorted	Host Mode
2-3 shorted (via R101)	Function Mode

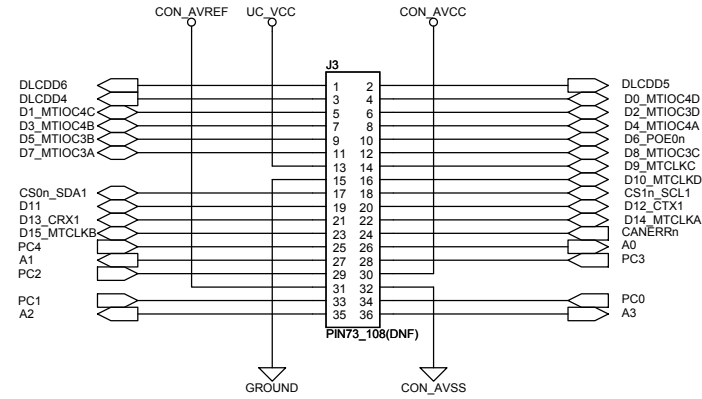
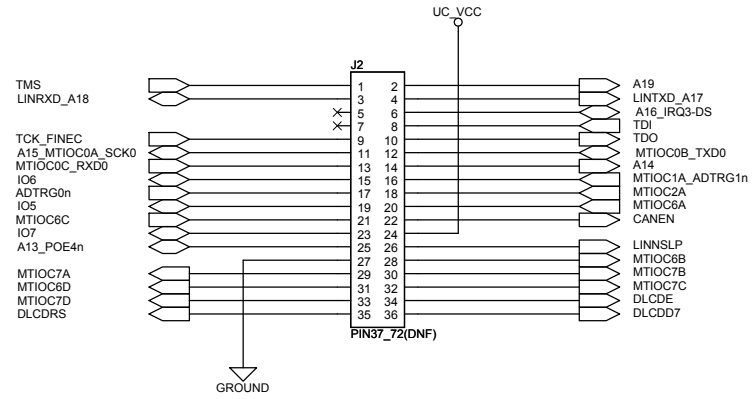
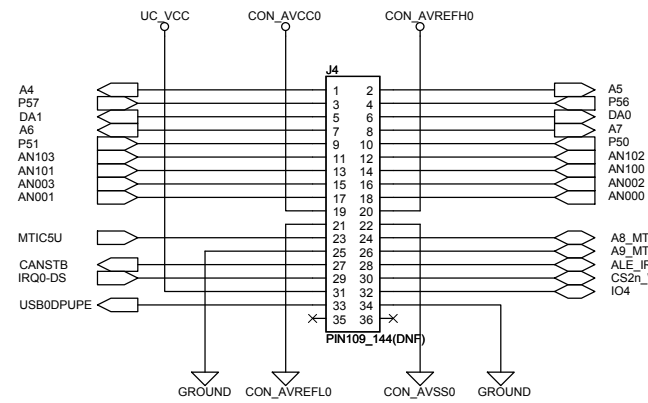
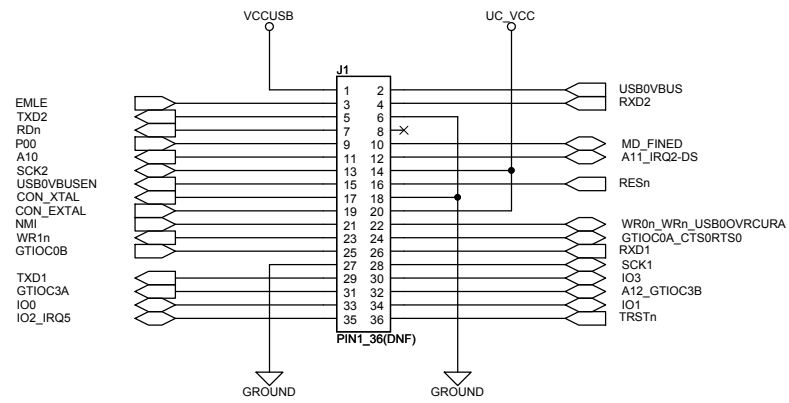
D+, D- Pulldown Configuration

R110	R126	Function Mode
Remove	Remove	Function Mode
Fit	Fit	Host Mode



Note:
 RX63T 5V-version: R230 = 100K
 RX63T 3V-version: R230 = 30K

Microcontroller Pin Headers



Revision History

REV	DATE	PAGE	DESCRIPTION
1.00	08.01.2014	---	1st release edition.

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Title			
RSKRX63T_144PIN [Revision History]			
Size			
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