

REV	REF	DATE	DRAWN BY
1	TRAC#1761	26.11.2010	SHN
2	TRAC#1829	03.02.2011	SHN
3	RSK#1829	25.07.2011	MAB
4	RSK#2990	07.01.2013	MAB

RSKRX220 STARTER KIT SCHEMATICS

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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

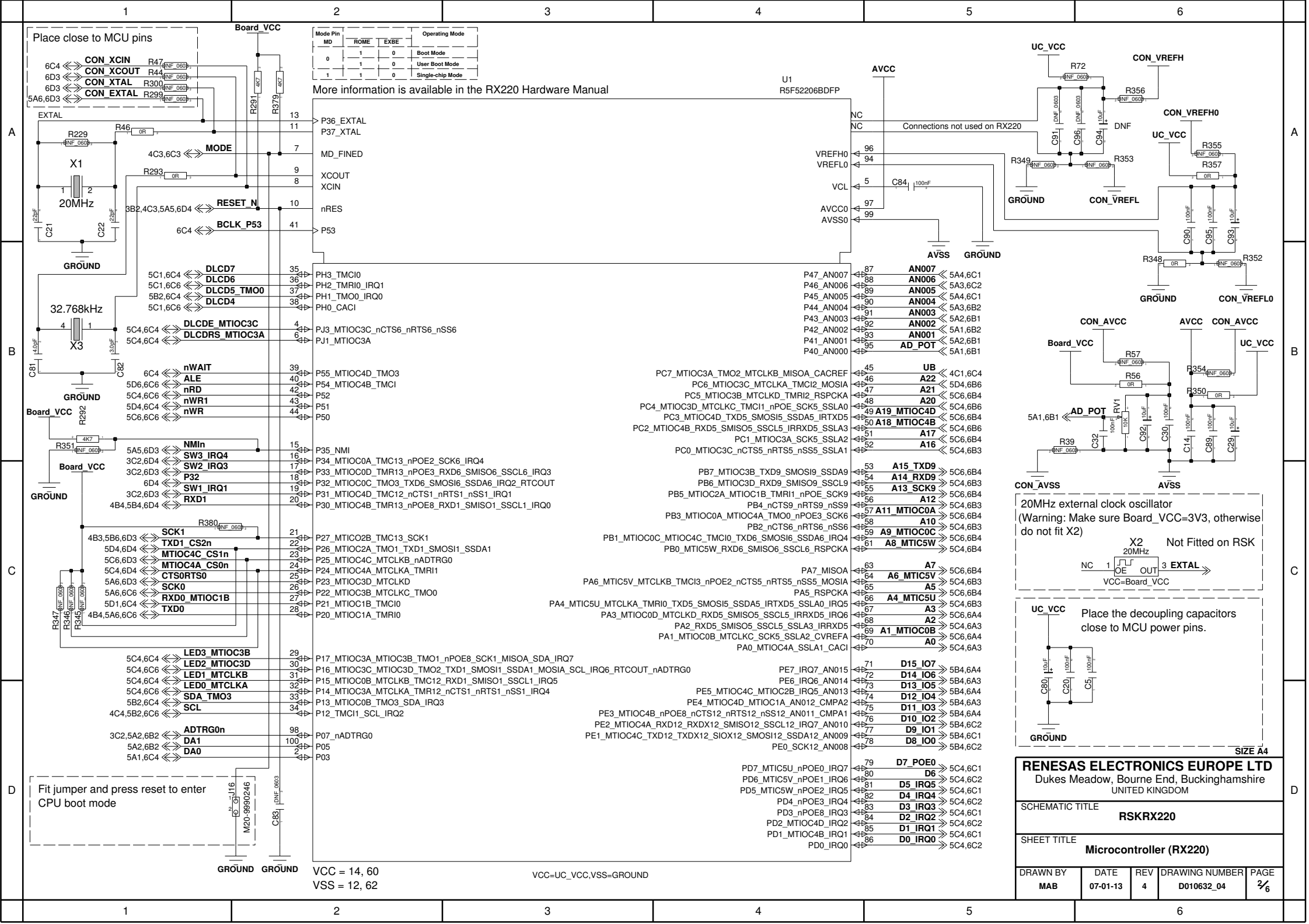
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 UNITED KINGDOM

SCHEMATIC TITLE
RSKRX220

SHEET TITLE
Index

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Mode Pin	MD	ROME	EXBE	Operating Mode
0	1	0	0	Boot Mode
0	1	0	1	User Boot Mode
1	1	0	0	Single-chip Mode

More information is available in the RX220 Hardware Manual

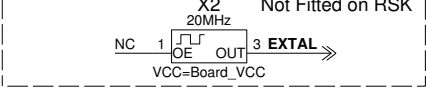
- P36_EXTAL
- P37_XTAL
- MD_FINED
- XCOUT
- XCIN
- nRES
- P53
- PH3_TMCIO
- PH2_TMRI0_IRQ1
- PH1_TMO0_IRQ0
- PH0_CACI
- PJ3_MTIIOC3C_nCTS6_nRTS6_nSS6
- PJ1_MTIIOC3A
- P55_MTIIOC4D_TMO3
- P54_MTIIOC4B_TMC1
- P52
- P51
- P50
- P35_NMI
- P34_MTIIOC0A_TMC13_nPOE2_SCK6_IRQ4
- P33_MTIIOC0D_TMR13_nPOE3_RXD6_SMISO6_SSCL6_IRQ3
- P32_MTIIOC0C_TMO3_TXD6_SMISO6_SSAD6_IRQ2_RTOUT
- P31_MTIIOC4D_TMC12_nCTS1_nRTS1_nSS1_IRQ1
- P30_MTIIOC4B_TMR13_nPOE8_RXD1_SMISO1_SSCL1_IRQ0
- P27_MTIIOC2B_TMC13_SCK1
- P26_MTIIOC2A_TMO1_TXD1_SMOS1_SSAD1
- P25_MTIIOC4C_MTCLKB_nADTRG0
- P24_MTIIOC4A_MTCLKA_TMR11
- P23_MTIIOC3D_MTCLKD
- P22_MTIIOC3B_MTCLKC_TMO0
- P21_MTIIOC1B_TMC10
- P20_MTIIOC1A_TMR10
- P17_MTIIOC3A_MTIIOC3B_TMO1_nPOE8_SCK1_MISOA_SDA_IRQ7
- P16_MTIIOC3C_MTIIOC3D_TMO2_TXD1_SMOS1_SSAD1_MOSIA_SCL_IRQ6_RTOUT_nADTRG0
- P15_MTIIOC0B_MTCLKB_TMC12_RXD1_SMISO1_SSCL1_IRQ5
- P14_MTIIOC3A_MTCLKA_TMR12_nCTS1_nRTS1_nSS1_IRQ4
- P13_MTIIOC0B_TMO3_SDA_IRQ3
- P12_TMC11_SCL_IRQ2
- P07_nADTRG0
- P05
- P03

VCC = 14, 60
VSS = 12, 62

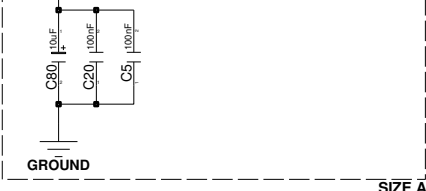
VCC=UC_VCC,VSS=GROUND

- AN007
- AN006
- AN005
- AN004
- AN003
- AN002
- AN001
- AD_POT
- UB
- A22
- A21
- A20
- A19_MTIIOC4D
- A18_MTIIOC4B
- A17
- A16
- A15_TXD9
- A14_RXD9
- A13_SCK9
- A12
- A11_MTIIOC0A
- A10
- A9_MTIIOC0C
- A8_MTIOSW
- A7
- A6_MTIOSV
- A5
- A4_MTIOSU
- A3
- A2
- A1_MTIIOC0B
- A0
- D15_IO7
- D14_IO6
- D13_IO5
- D12_IO4
- D11_IO3
- D10_IO2
- D9_IO1
- D8_IO0
- D7_POE0
- D6
- D5_IRQ5
- D4_IRQ4
- D3_IRQ3
- D2_IRQ2
- D1_IRQ1
- D0_IRQ0
- PA7_MISOA
- PA6_MTIOSV_MTCLKB_TMC13_nPOE2_nCTS5_nRTS5_nSS5_MOSIA
- PA5_RSPCKA
- PA4_MTIOSU_MTCLKA_TMR10_TXD5_SMOSI5_SSAD5_IRTXD5_SSAL0_IRQ5
- PA3_MTIIOC0D_MTCLKD_RXD5_SMISO5_SSCL5_IRRXD5_IRQ6
- PA2_RXD5_SMISO5_SSCL5_SSAL3_IRRXD5
- PA1_MTIIOC0B_MTCLKC_SCK5_SSAL2_CVREFA
- PA0_MTIIOC4A_SSAL1_CACI
- PE7_IRQ7_AN015
- PE6_IRQ6_AN014
- PE5_MTIIOC4C_MTIIOC2B_IRQ5_AN013
- PE4_MTIIOC4D_MTIIOC1A_AN012_CMPA2
- PE3_MTIIOC4B_nPOE8_nCTS12_nRTS12_nSS12_AN011_CMPA1
- PE2_MTIIOC4A_RXD12_RXDX12_SMISO12_SSCL12_IRQ7_AN010
- PE1_MTIIOC4C_TXD12_TXDX12_SIOX12_SMOSI12_SSAD12_AN009
- PE0_SCK12_AN008
- PD7_MTIOSU_nPOE0_IRQ7
- PD6_MTIOSV_nPOE1_IRQ6
- PD5_MTIOSW_nPOE2_IRQ5
- PD4_nPOE3_IRQ4
- PD3_nPOE8_IRQ3
- PD2_MTIIOC4D_IRQ2
- PD1_MTIIOC4B_IRQ1
- PD0_IRQ0
- PC7_MTIIOC3A_TMO2_MTCLKB_MISOA_CACREF
- PC6_MTIIOC3C_MTCLKA_TMC12_MOSIA
- PC5_MTIIOC3B_MTCLKD_TMR12_RSPCKA
- PC4_MTIIOC3D_MTCLKC_TMC11_nPOE_SCK5_SSAL0
- PC3_MTIIOC4D_TXD5_SMOSI5_SSAD5_IRTXD5
- PC2_MTIIOC4B_RXD5_SMISO5_SSCL5_IRRXD5_SSAL3
- PC1_MTIIOC3A_SCK5_SSAL2
- PC0_MTIIOC3C_nCTS5_nRTS5_nSS5_SSAL1
- PB7_MTIIOC3B_TXD9_SMOSI9_SSAD9
- PB6_MTIIOC3D_RXD9_SMISO9_SSCL9
- PB5_MTIIOC2A_MTIIOC1B_TMR11_nPOE_SCK9
- PB4_nCTS9_nRTS9_nSS9
- PB3_MTIIOC0A_MTIIOC4A_TMO0_nPOE3_SCK6
- PB2_nCTS6_nRTS6_nSS6
- PB1_MTIIOC0C_MTIIOC4C_TMC10_TXD6_SMOSI6_SSAD6_IRQ4
- PB0_MTIOSW_RXD6_SMISO6_SSCL6_RSPCKA

20MHz external clock oscillator
(Warning: Make sure Board_VCC=3V3, otherwise do not fit X2)



Place the decoupling capacitors close to MCU power pins.

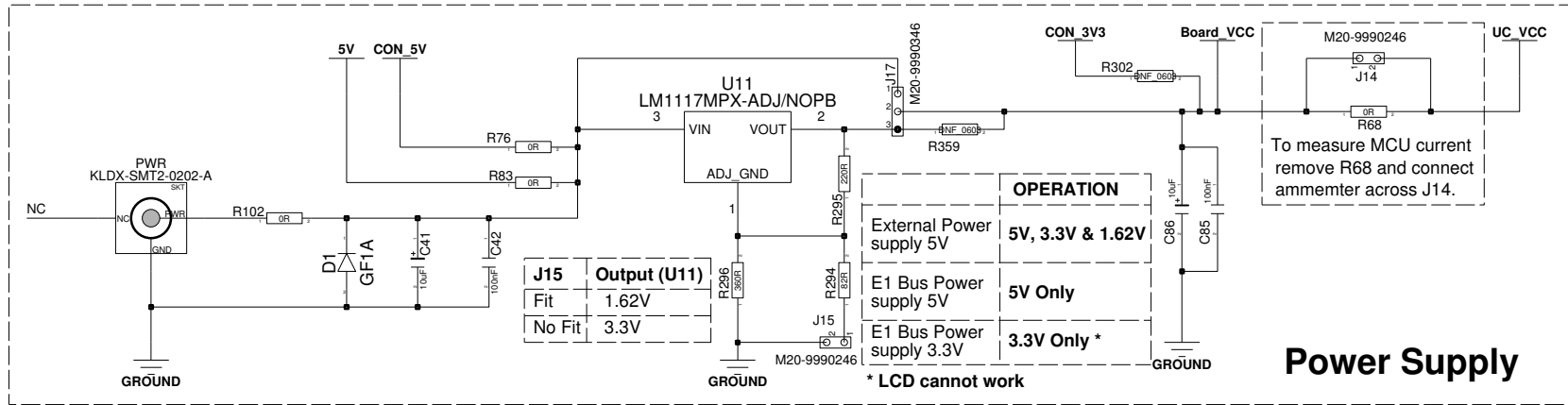


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SCHEMATIC TITLE
RSKRX220

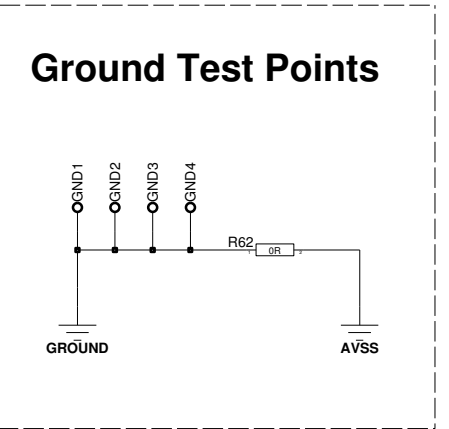
SHEET TITLE
Microcontroller (RX220)

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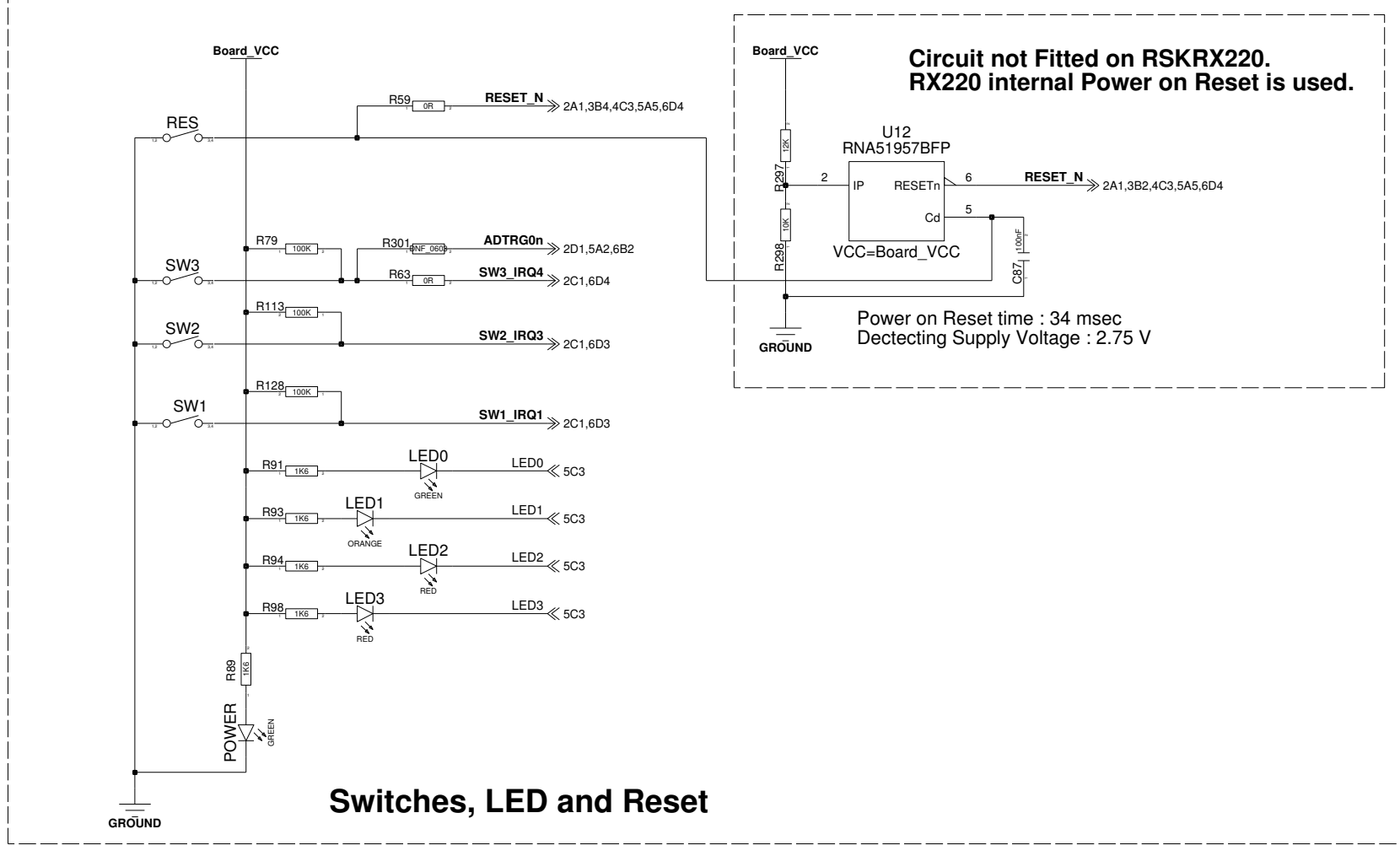


To measure MCU current remove R68 and connect ammeter across J14.

Power Supply



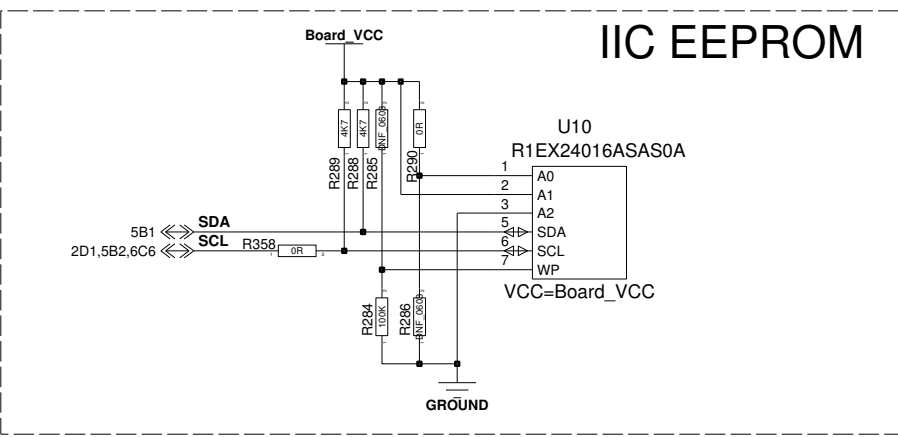
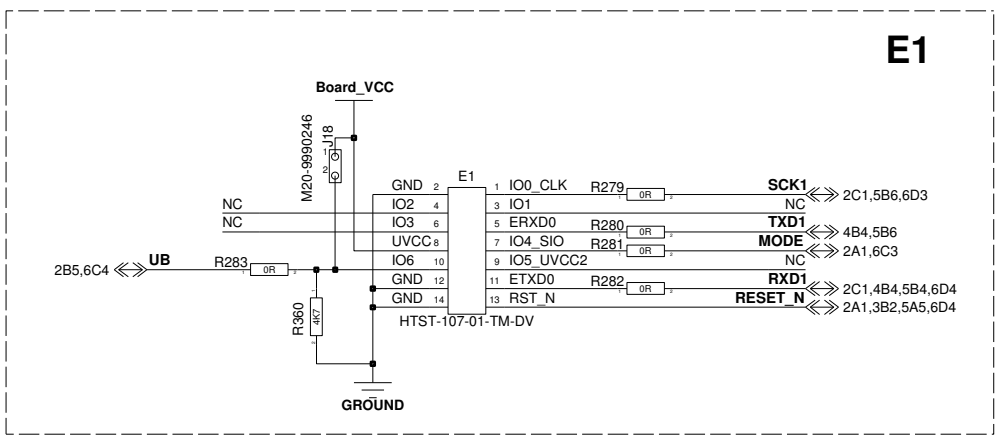
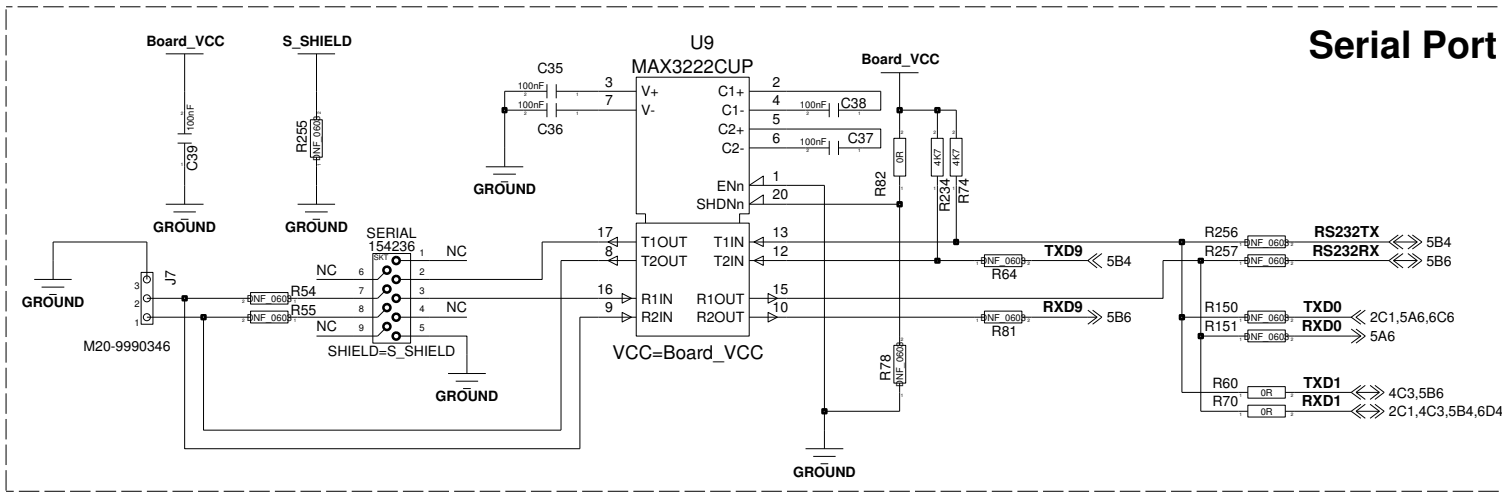
Ground Test Points



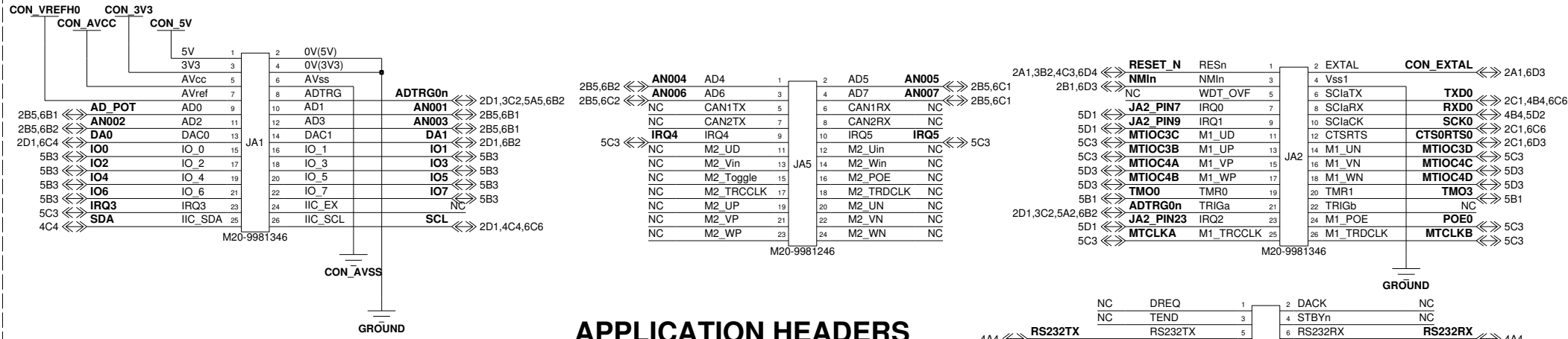
Switches, LED and Reset

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SCHEMATIC TITLE RSKRX220				
SHEET TITLE Power, Switches, LED's and Reset				
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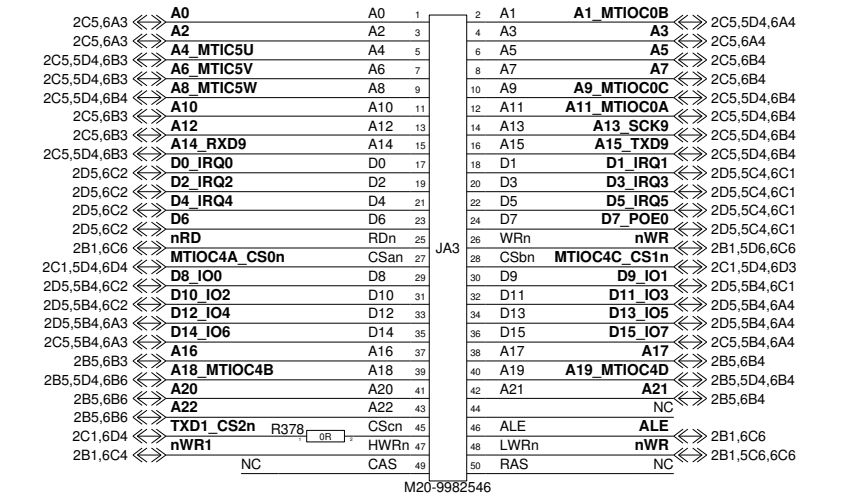
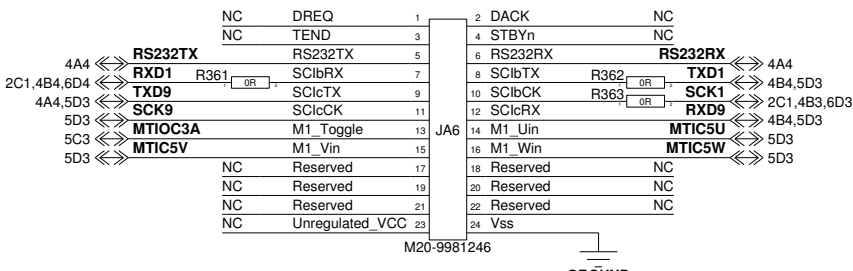
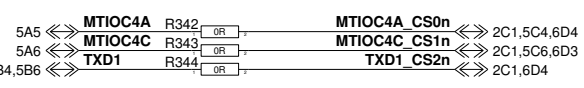
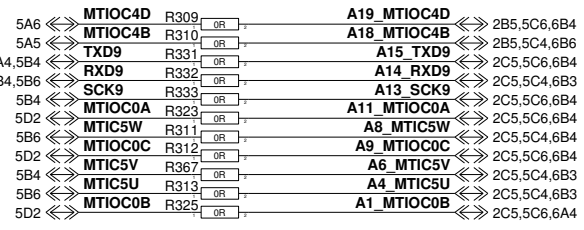
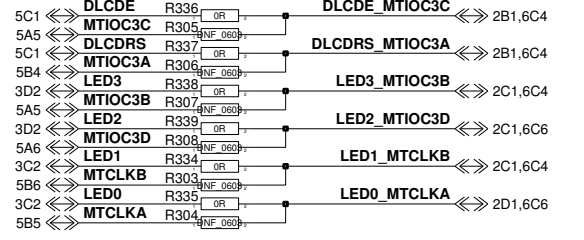
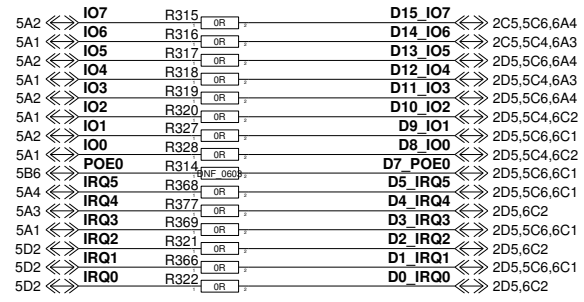
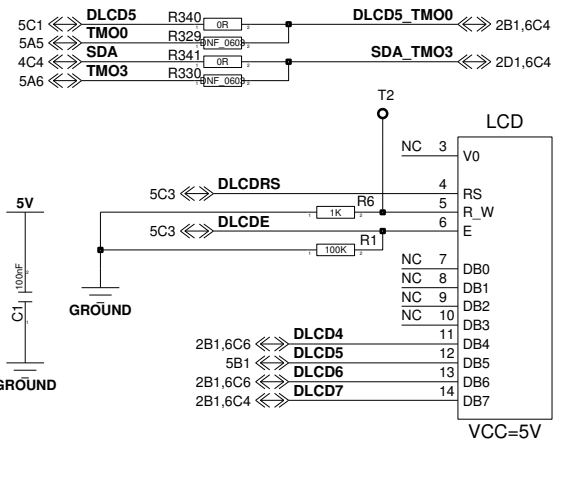


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SCHEMATIC TITLE RSKRX220				
SHEET TITLE Serial, E1 and IIC EEPROM				
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APPLICATION HEADERS

DEBUG LCD and OPTION LINKS



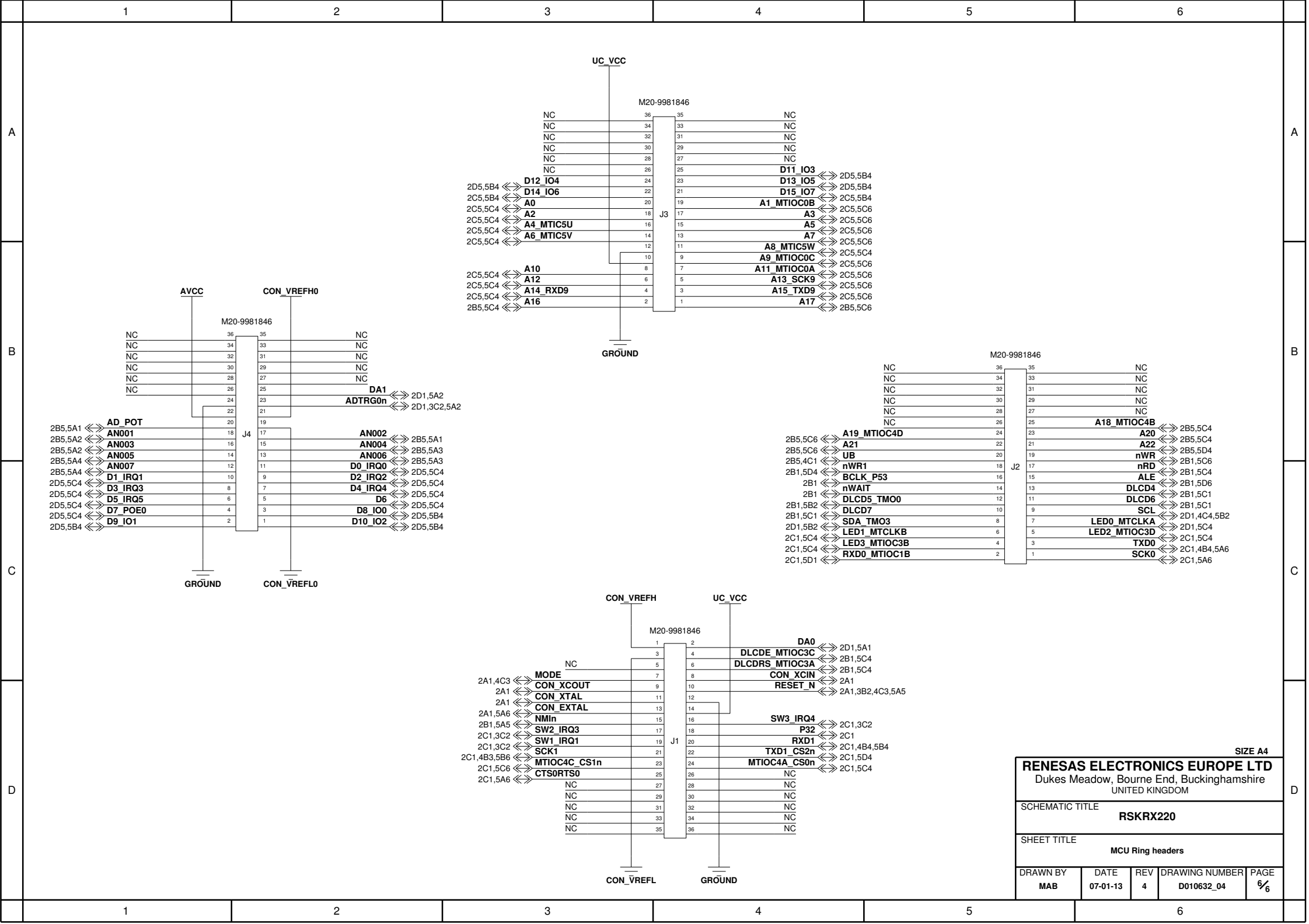
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SCHEMATIC TITLE
RSKRX220

SHEET TITLE
LCD, Option link and Application headers

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SCHEMATIC TITLE
RSKRX220

SHEET TITLE
MCU Ring headers

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