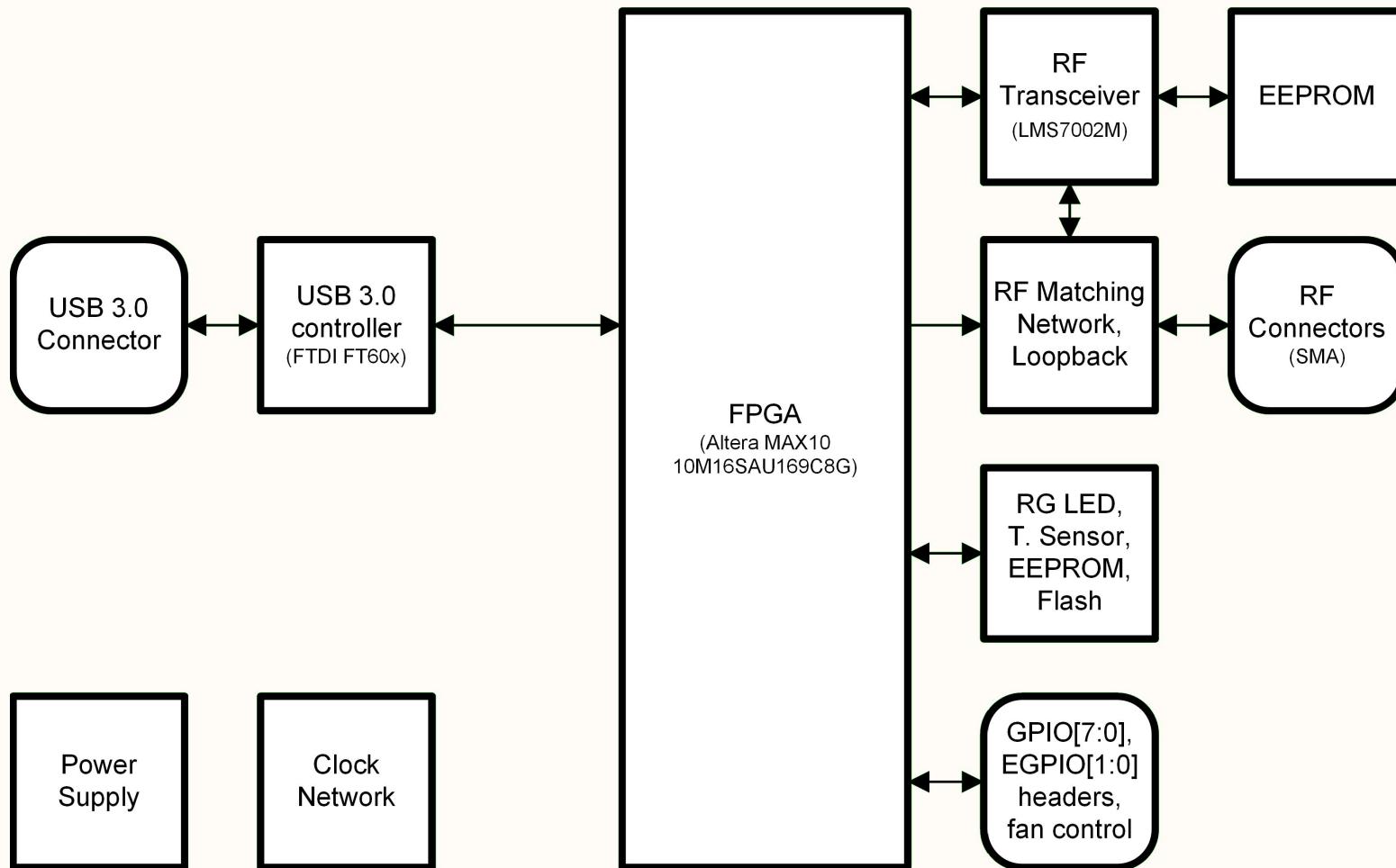


Block diagram



Project name: **LimeSDR_Mini_Inv2.PrjPcb**

Title: **Block diagram**

Size: **A4** Revision: **v1.2**

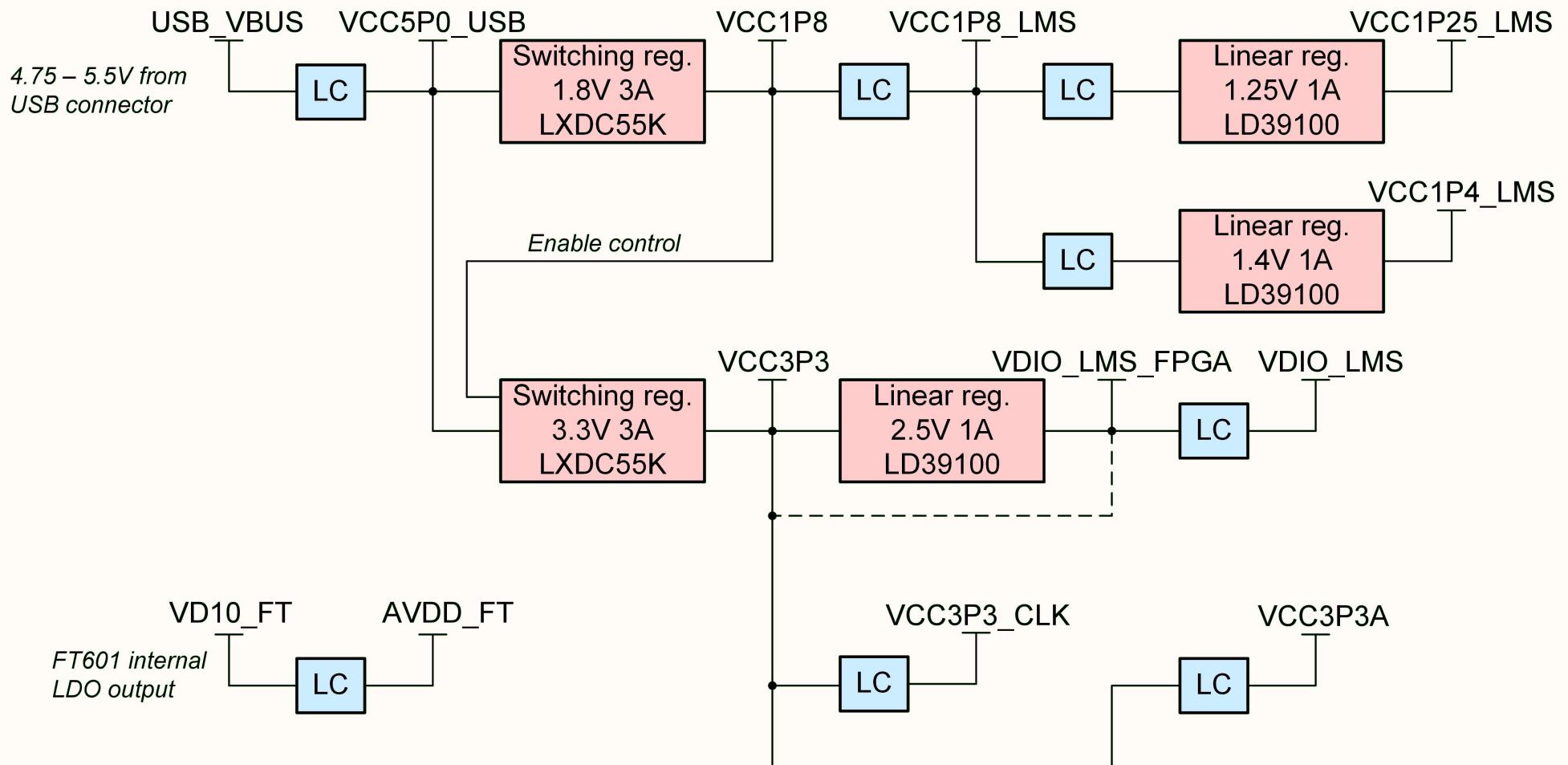
Date: **2018-04-09** Time: **12:57:58** Sheet **1** of **9**

File: **01_BlockDiagram.SchDoc**

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United Kingdom



Power diagram



Project name: **LimeSDR_Mini_Iv2.PrjPcb**

Title: **Power diagram**

Size: **A4** Revision: **v1.2**

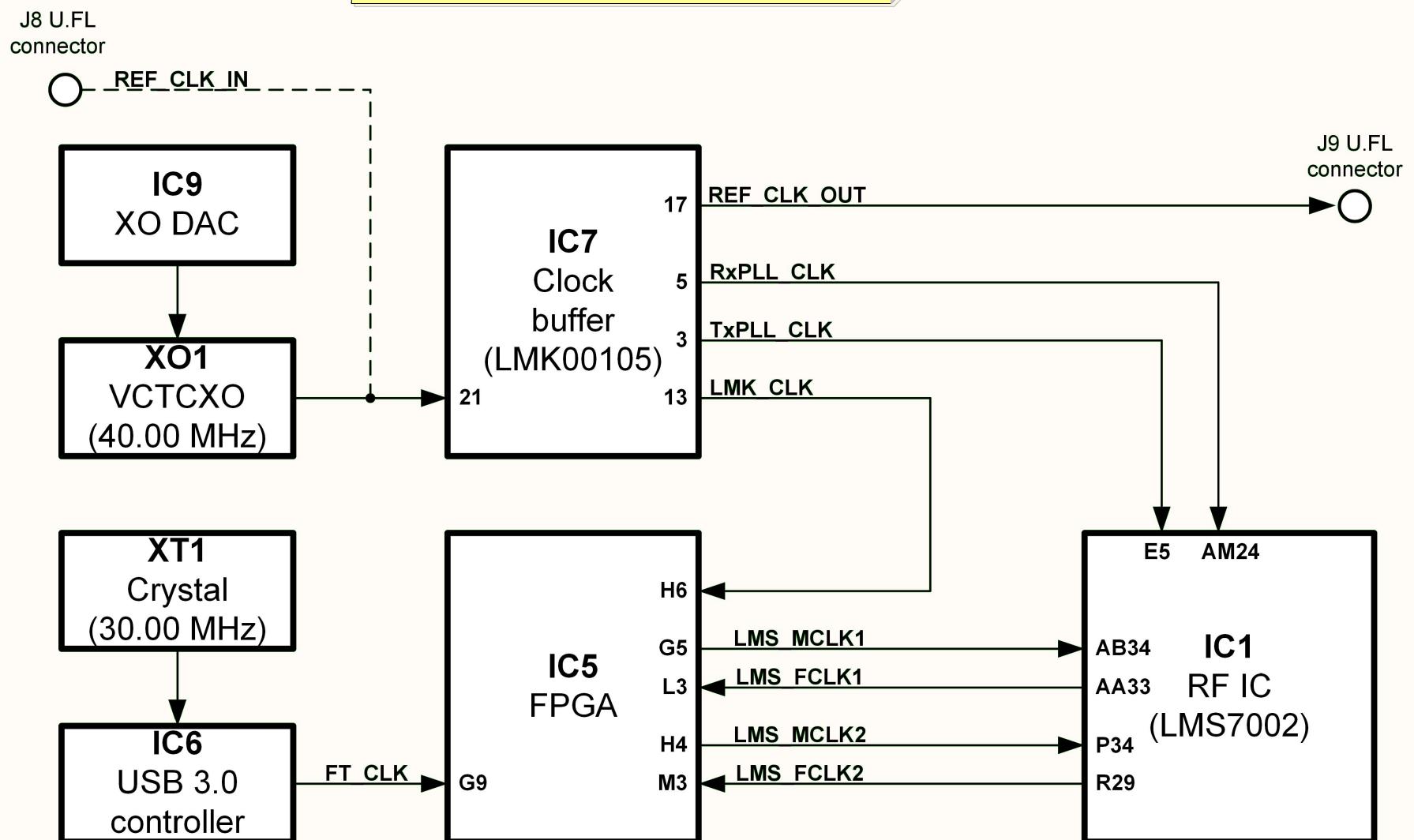
Date: **2018-04-09** Time: **12:58:01** Sheet **2** of **9**

File: **02_PowerDiagram.SchDoc**

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Clock diagram

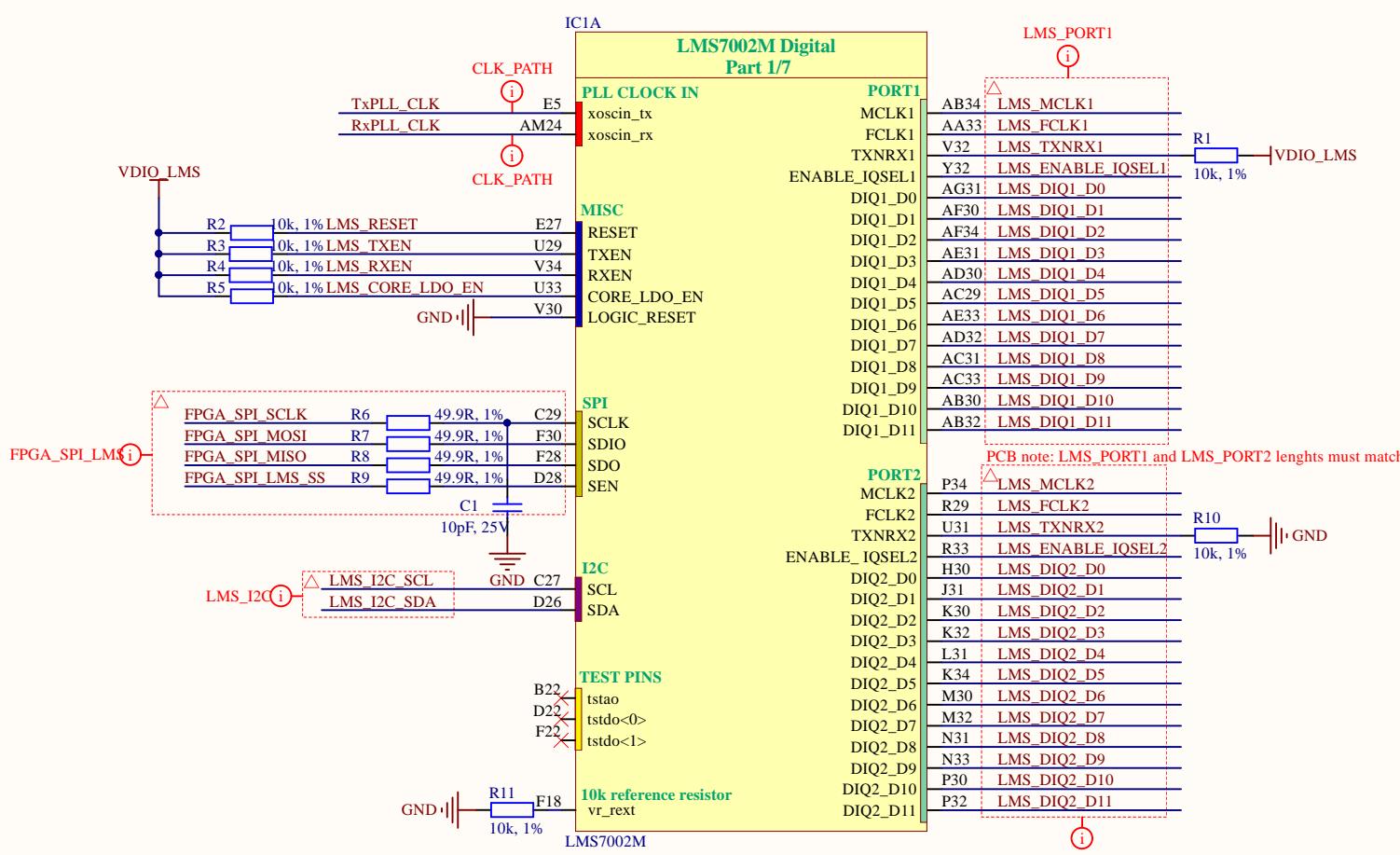
Project name: *LimeSDR_Mini_Iv2.PrjPcb*Title: *Clock diagram*Size: *A4* Revision: *v1.2*Date: *2018-04-09* Time: *12:58:04* Sheet *3* of *9*File: *03_ClockDiagram.SchDoc*
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NF elements on sheet: -
Number of NF elements on sheet: 0

LMS7002M misc

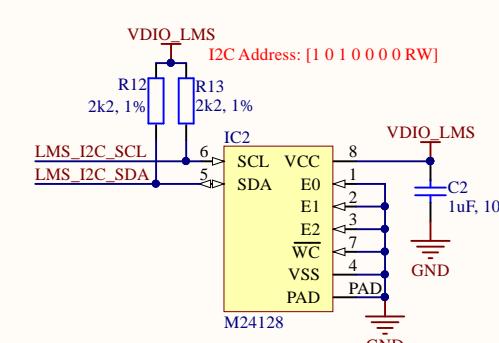
LMS7002M digital circuit

Baseband external IO



Local fiducial LMS Top
FL1

LMS EEPROM



Project name: LimeSDR_Mini_Inv2.PrjPcb

Title: LMS7002M misc

Size: A3 Revision: v1.2

Date: 2018-04-09 Time: 12:58:07 Sheet 4 of 9

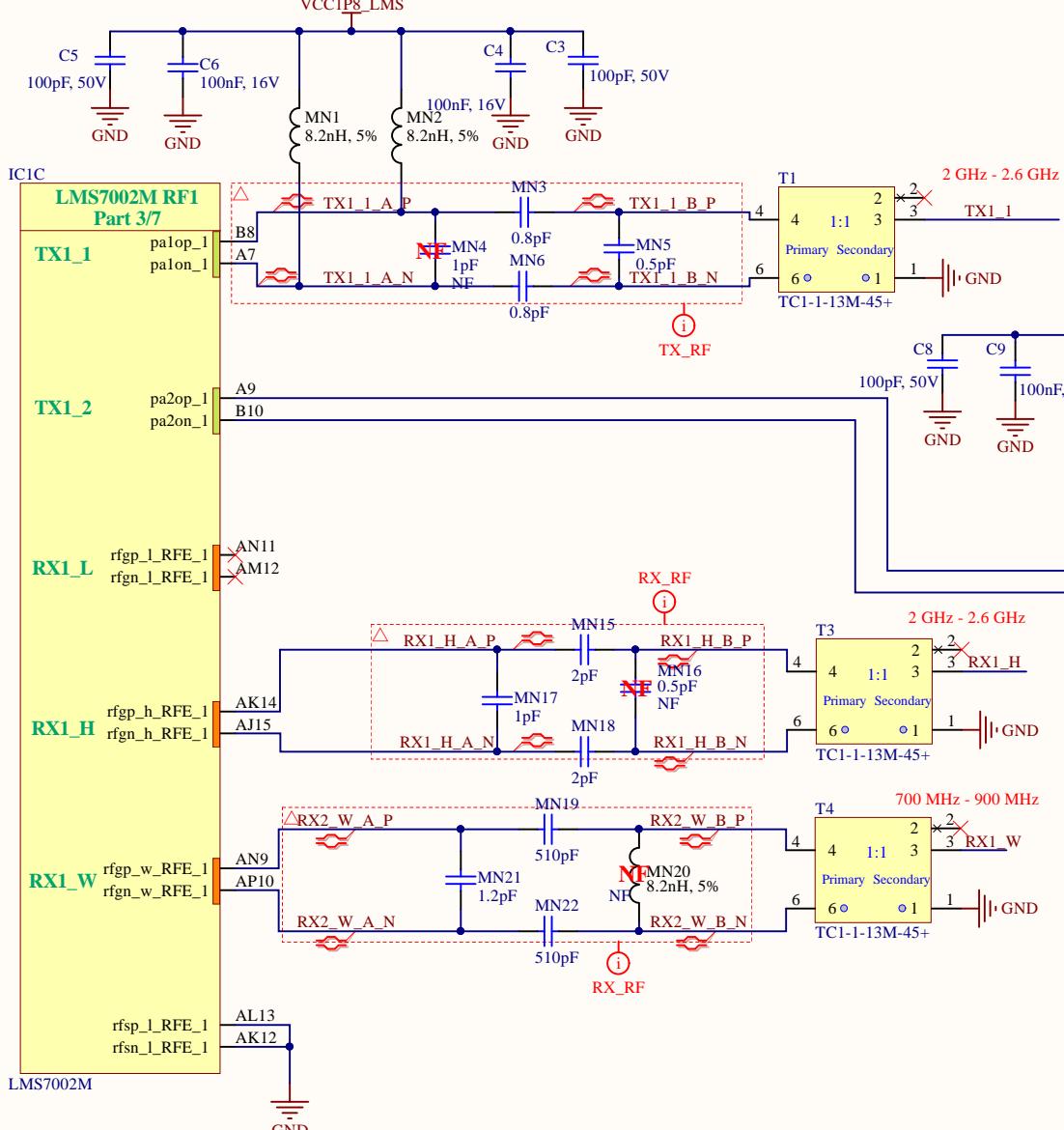
File: 04_LMS7002M_Misc.SchDoc

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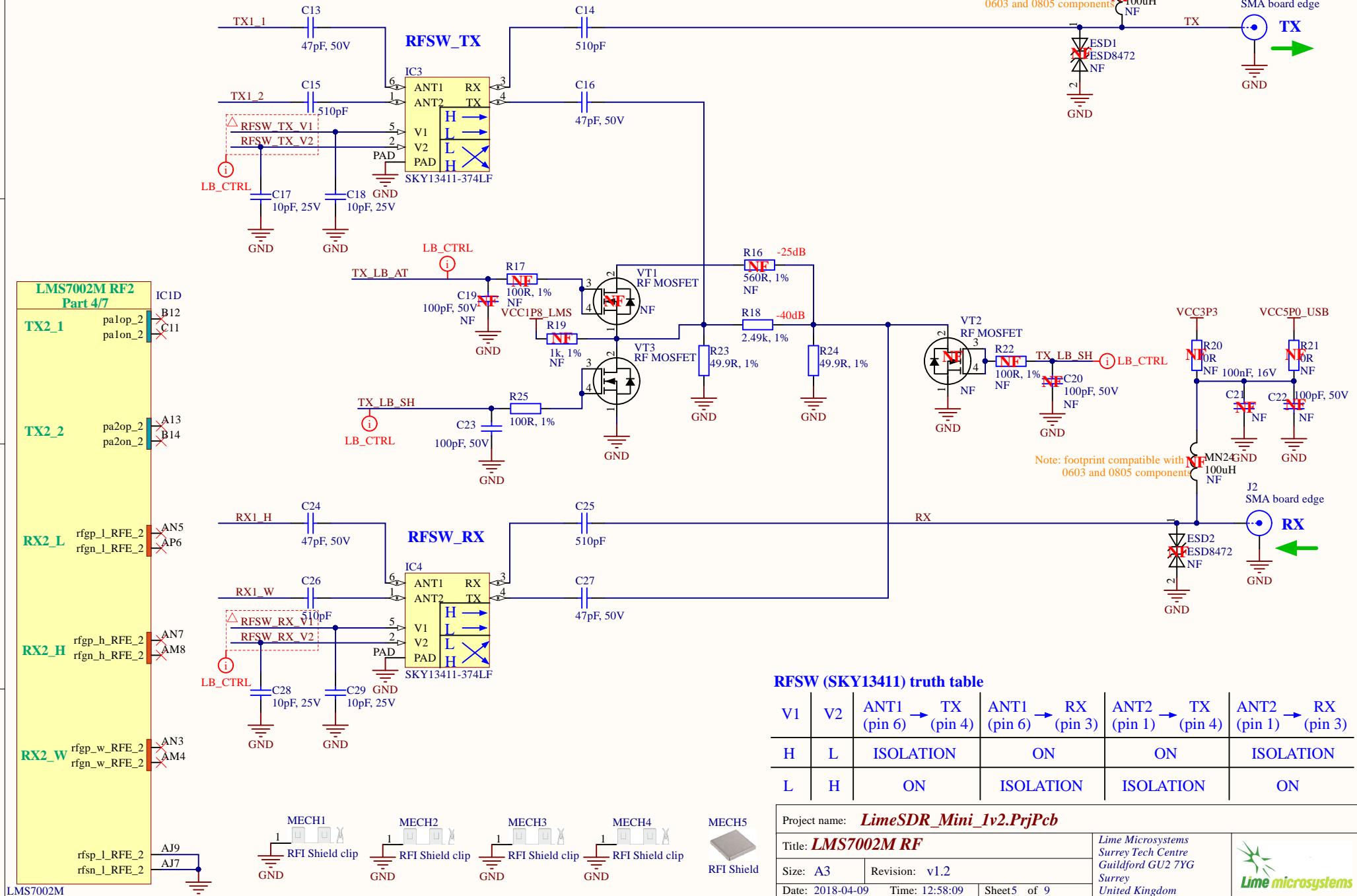
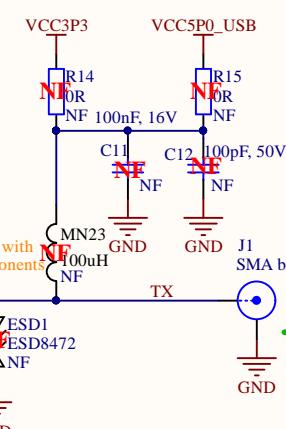
LMS7002M RF circuits

LMS RF Channel 1



| RF truth table | | RFSW_TX | | RFSW_RX | | J1 | J2 | Loopback |
|----------------|----|---------|----|---------|-------|---------------|----|----------|
| V1 | V2 | V1 | V2 | (TX) | (RX) | | | |
| H | L | H | L | TX1_1 | RX1_H | TX1_2 → RX1_W | | |
| L | H | H | L | TX1_2 | RX1_H | TX1_1 → RX1_W | | |
| H | L | L | H | TX1_1 | RX1_W | TX1_2 → RX1_H | | |
| L | H | L | H | TX1_2 | RX1_W | TX1_1 → RX1_H | | |

Note: footprint compatible with 0603 and 0805 components



RFSW (SKY13411) truth table

| V1 | V2 | ANT1 → TX (pin 6) | ANT1 → RX (pin 4) | ANT2 → TX (pin 1) | ANT2 → RX (pin 3) |
|----|----|-------------------|-------------------|-------------------|-------------------|
| H | L | ISOLATION | ON | ON | ISOLATION |
| L | H | ON | ISOLATION | ISOLATION | ON |

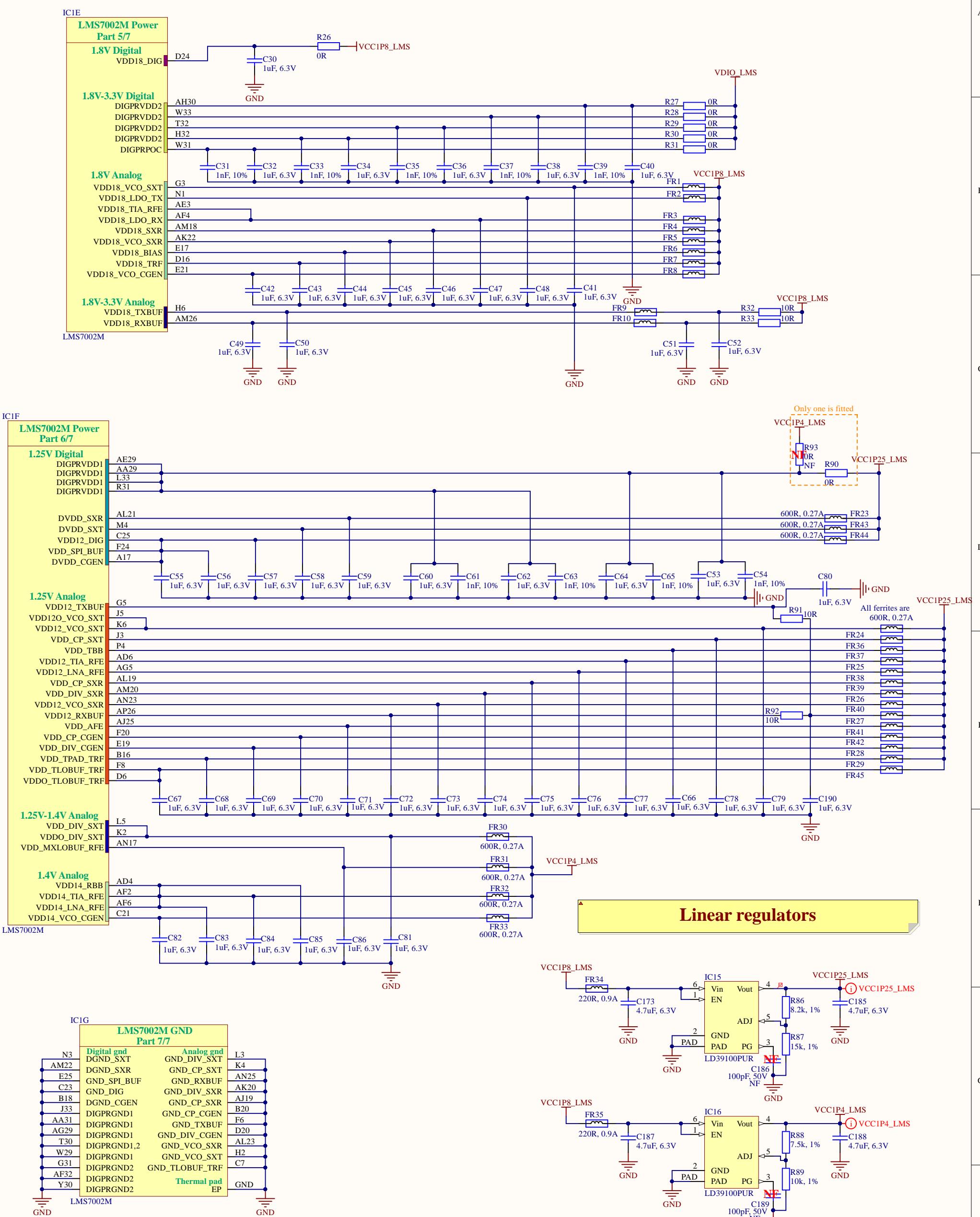
Project name: LimeSDR_Mini_1v2.Pcb

| | |
|-----------------------------|--|
| Title: LMS7002M RF | Lime Microsystems Surrey Tech Centre Guildford GU2 7YG Surrey United Kingdom |
| Size: A3 | Revision: v1.2 |
| Date: 2018-04-09 | Time: 12:58:09 |
| File: 05_LMS7002M_RF.SchDoc | Sheet 5 of 9 |



LMS7002M power supply circuit

NF elements on sheet: C186, C189, R93
Number of NF elements on sheet: 3



Project name: LimeSDR_Mini_Inv2.PnjPcb

Title: LMS7002M power supply

Size: A3 Revision: v1.2

Date: 2018-04-09 Time: 12:58:12 Sheet 6 of 9

File: 06_LMS7002M_Power.SchDoc

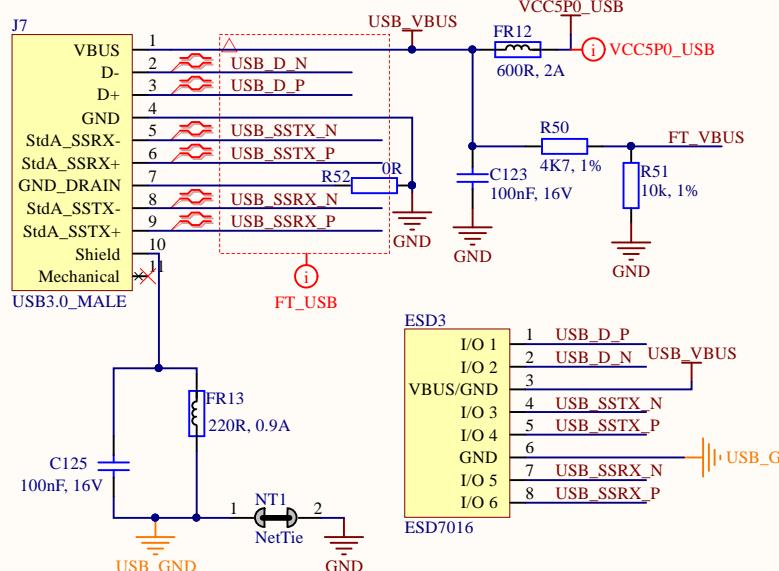
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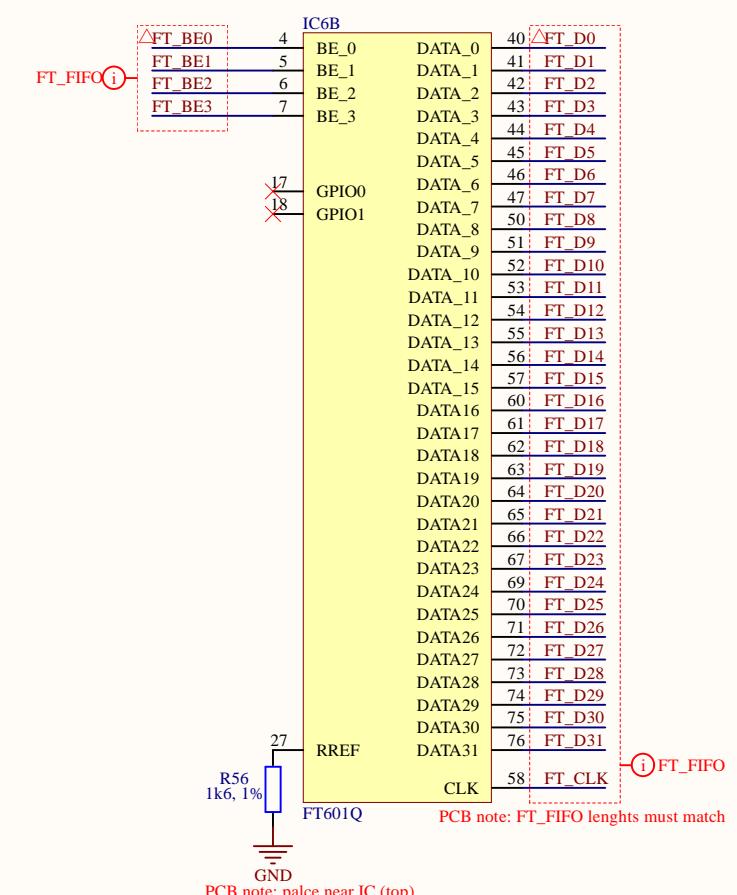
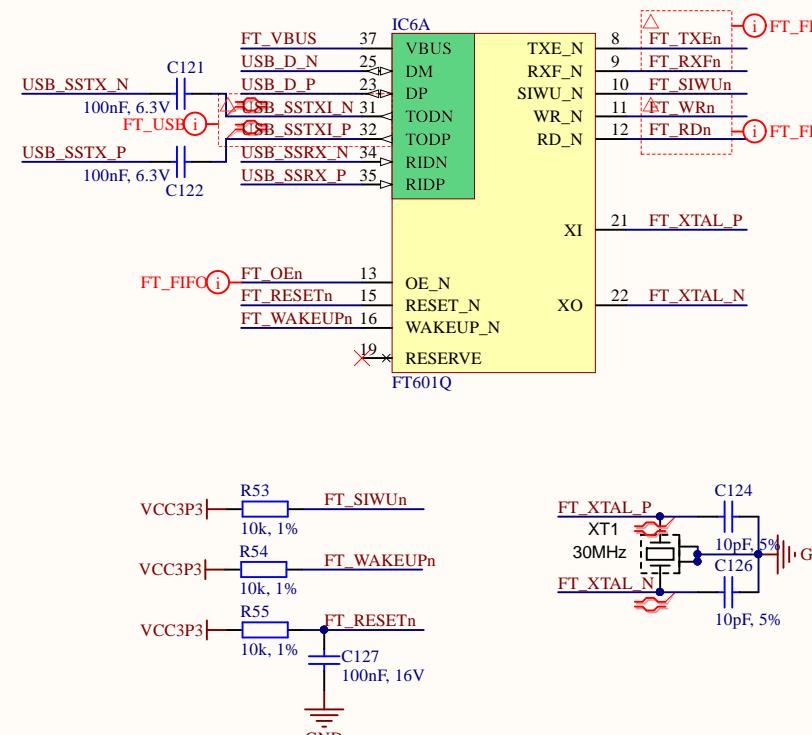
NF elements on sheet: MECH6, MECH7, MECH8, MECH9, MECH10
Number of NF elements on sheet: 5

FTDI (USB3) core

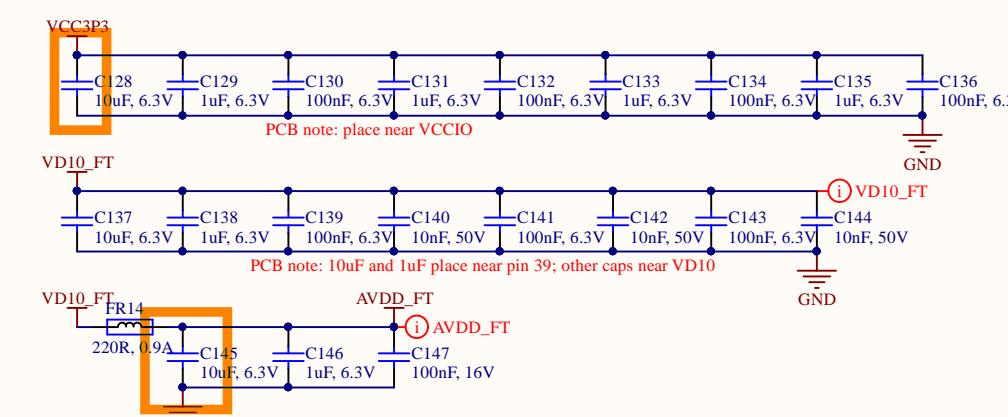
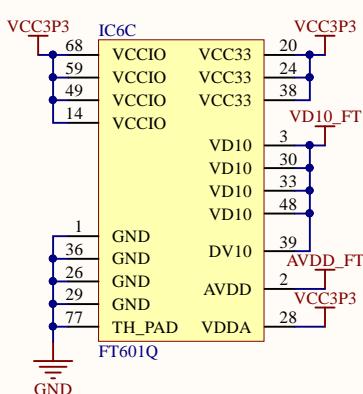
USB3.0 plug and



FTDI digital interfaces



FTDI Power



Schematic note: marked 10uF caps not crucial and can be removed to reduce BOM price

Project name: *LimeSDR Mini Jy2 PriPcb*

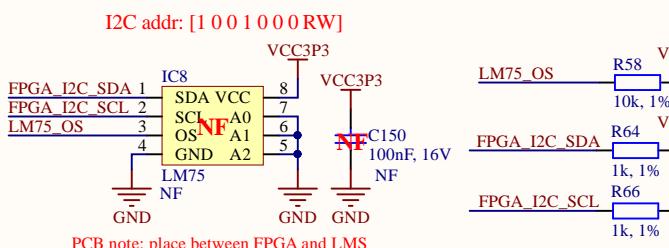
Title: *USB3.0 device*

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United Kingdom*

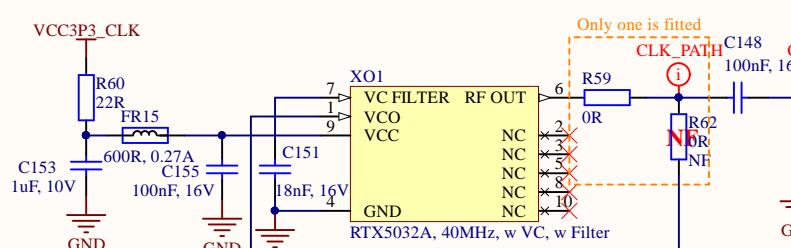


Misc

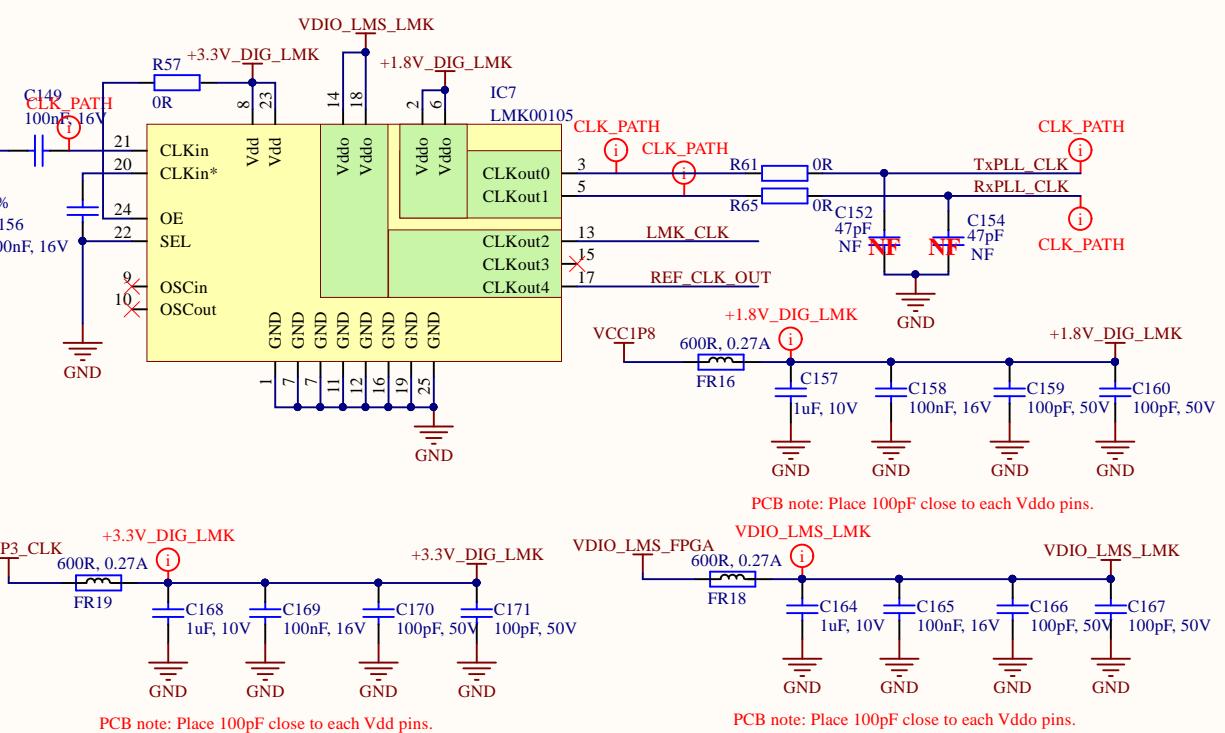
I2C Temperature sensor



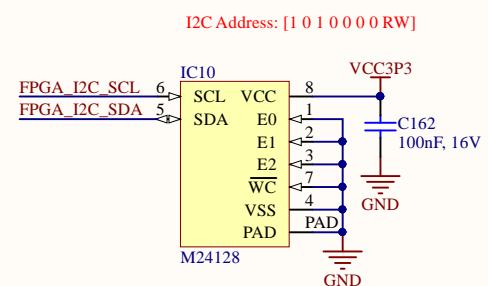
(VC)TCXO



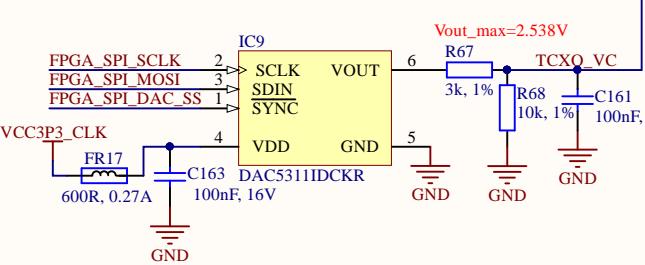
Clock buffer



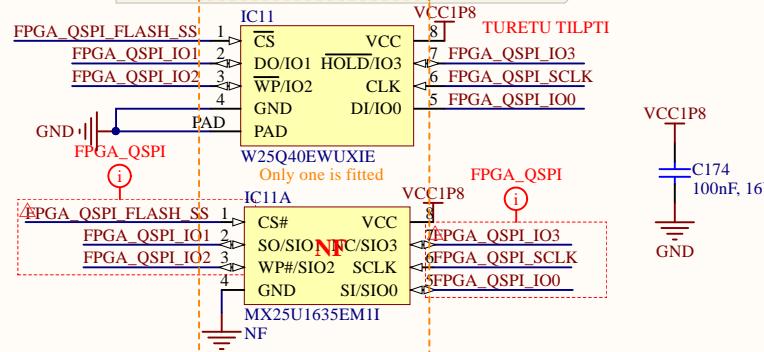
I2C EEPROM



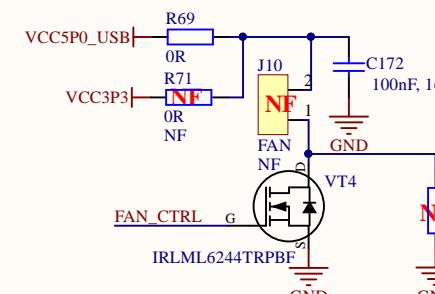
XO DAC



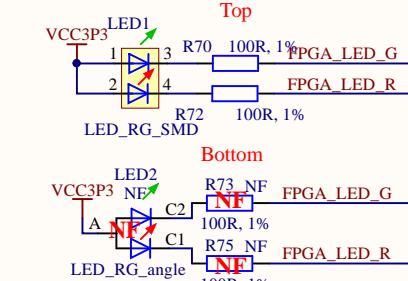
FPGA FLASH



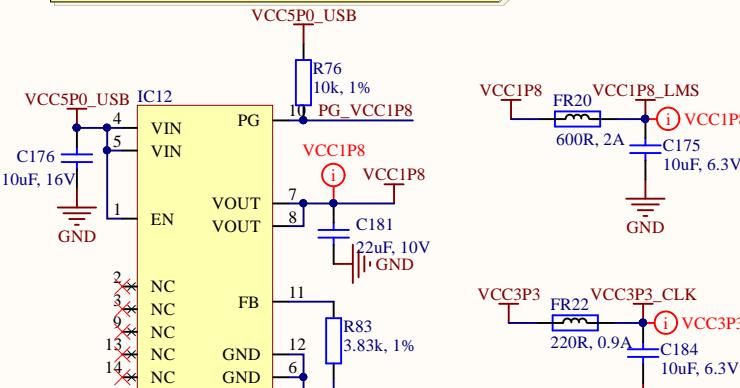
FAN control



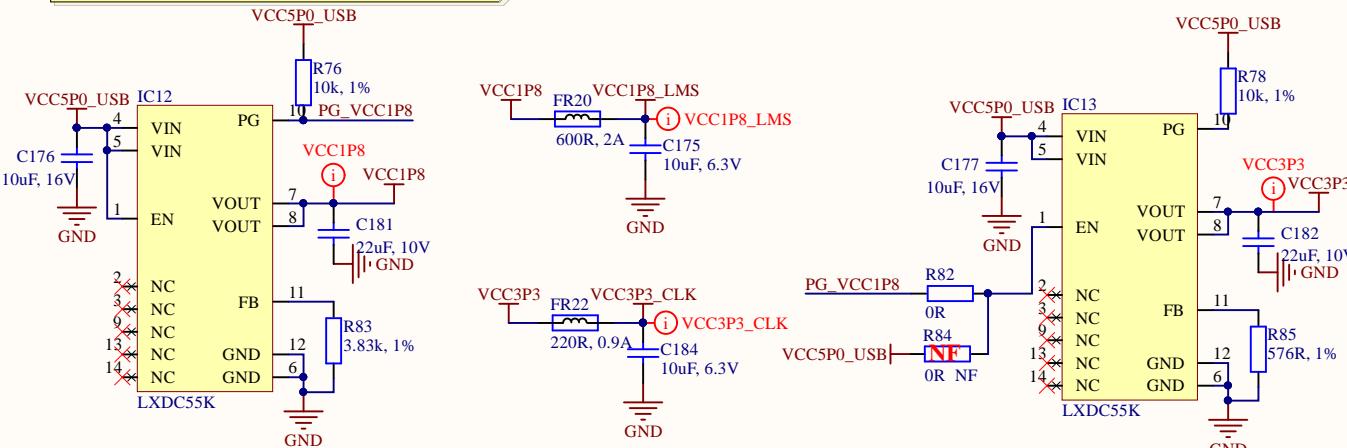
LED (Red/Green)



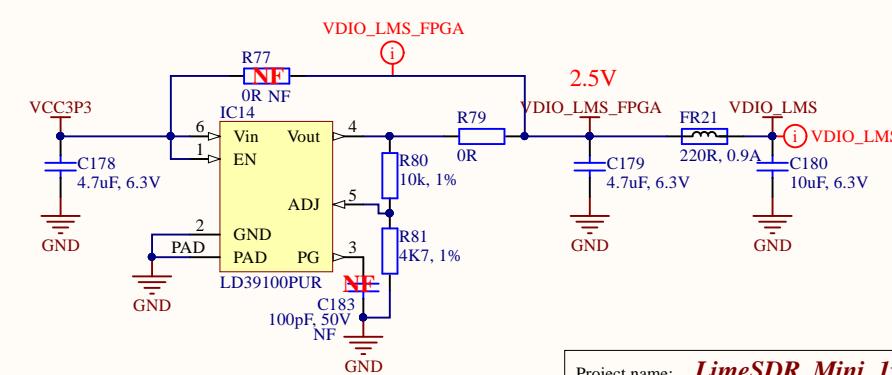
Switching regulator (1.8V)



Switching regulator (3.3V)



Linear regulator (VDIO_LMS_FPGA)



Project name: LimeSDR_Mini_Iv2.PrjPcb

Title: Misc

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Size: A3

Revision: v1.2

Date: 2018-04-09 Time: 12:58:17 Sheet 9 of 9

File: 09_Misc.SchDoc