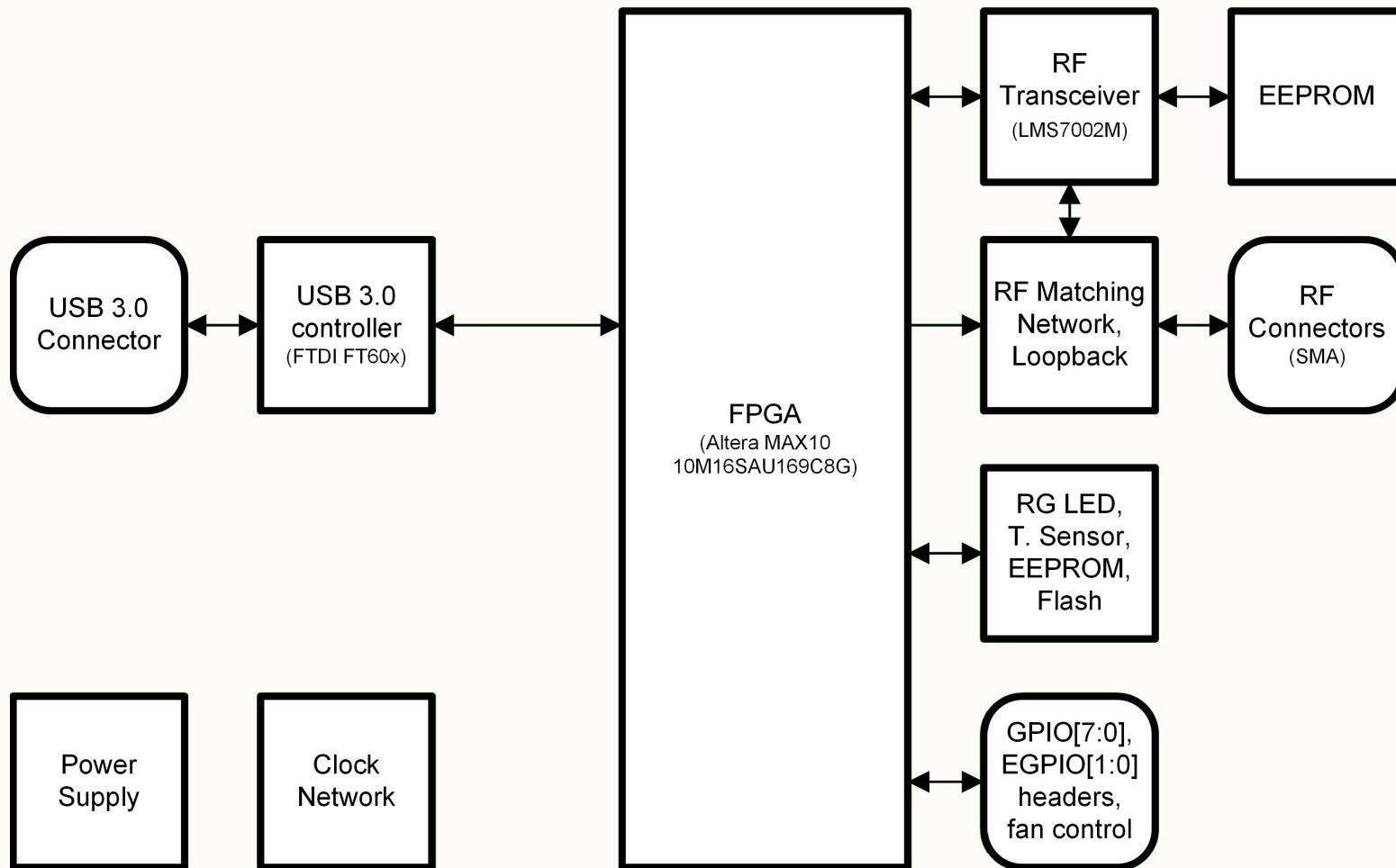


Block diagram



Project name: **LimeSDR_Mini_Iv3.PrjPcb**

Title: **Block diagram**

Size: **A4**

Revision: **v1.3**

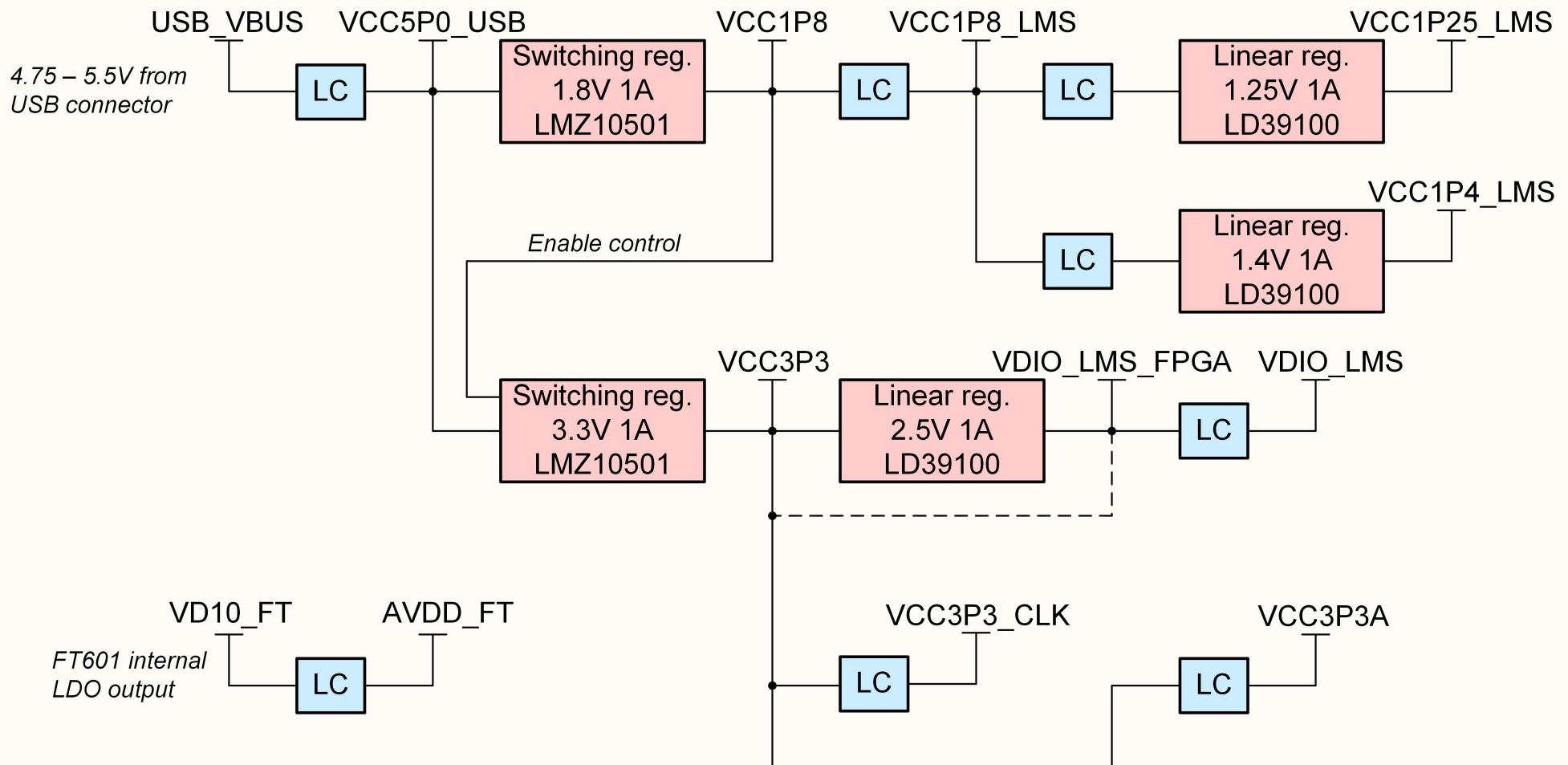
Date: **2019-06-25** Time: **15:26:20** Sheet **1** of **9**

File: **01_BlockDiagram.SchDoc**

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Guildford GU2 7YG
Surrey
United Kingdom



Power diagram



Project name: **LimeSDR_Mini_Iv3.PrbPcb**

Title: **Power diagram**

Size: **A4** Revision: **v1.3**

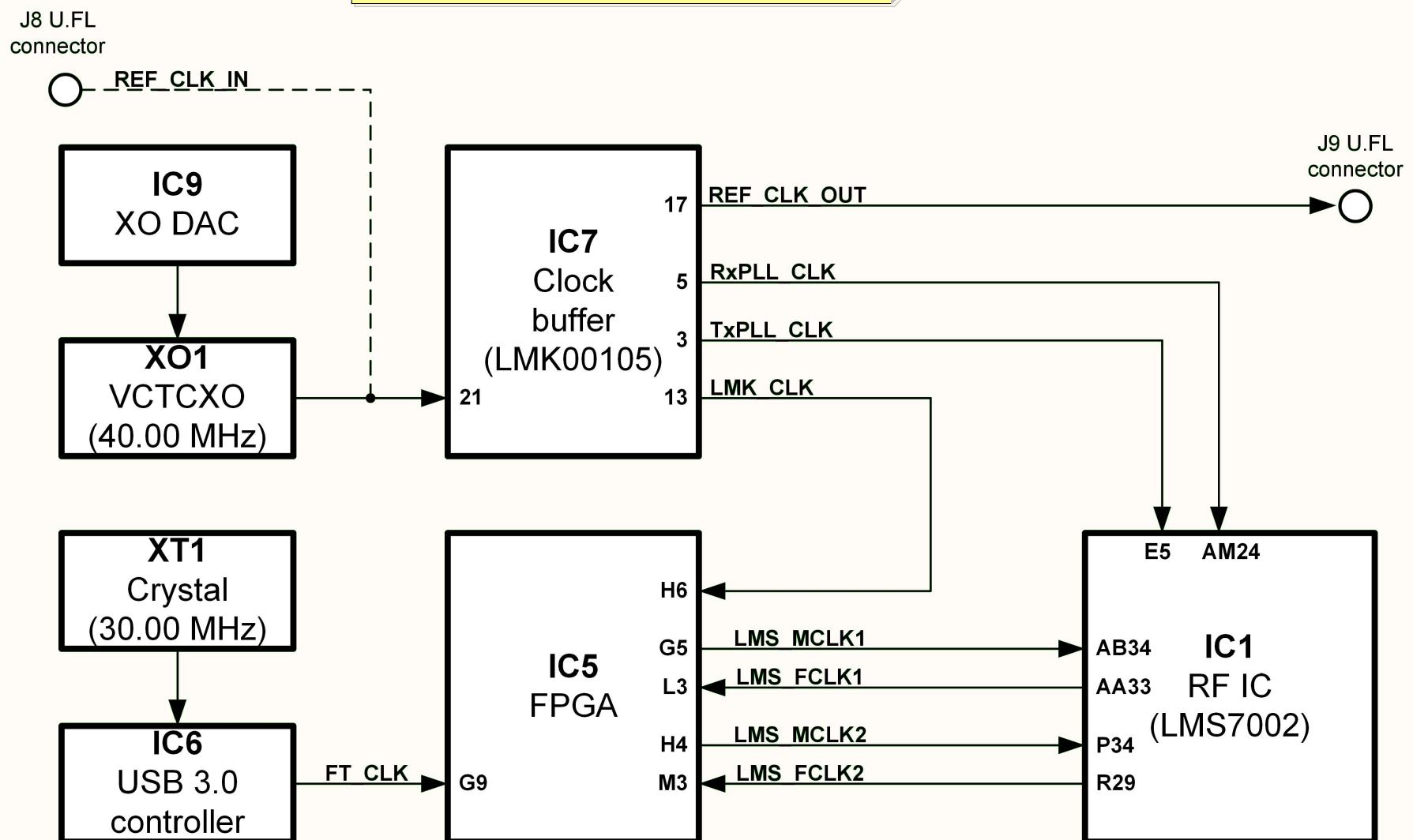
Date: **2019-06-25** Time: **15:26:24** Sheet **2** of **9**

File: **02_PowerDiagram.SchDoc**

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Guildford GU2 7YG
Surrey
United Kingdom



Clock diagram



Project name: *LimeSDR_Mini_Iv3.PrjPcb*

Title: *Clock diagram*

Size: *A4* Revision: *v1.3*

Date: *2019-06-25* Time: *15:26:30* Sheet *3* of *9*

File: *03_ClockDiagram.SchDoc*

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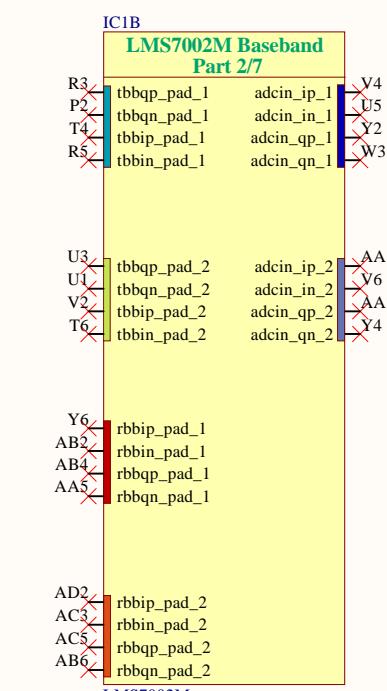
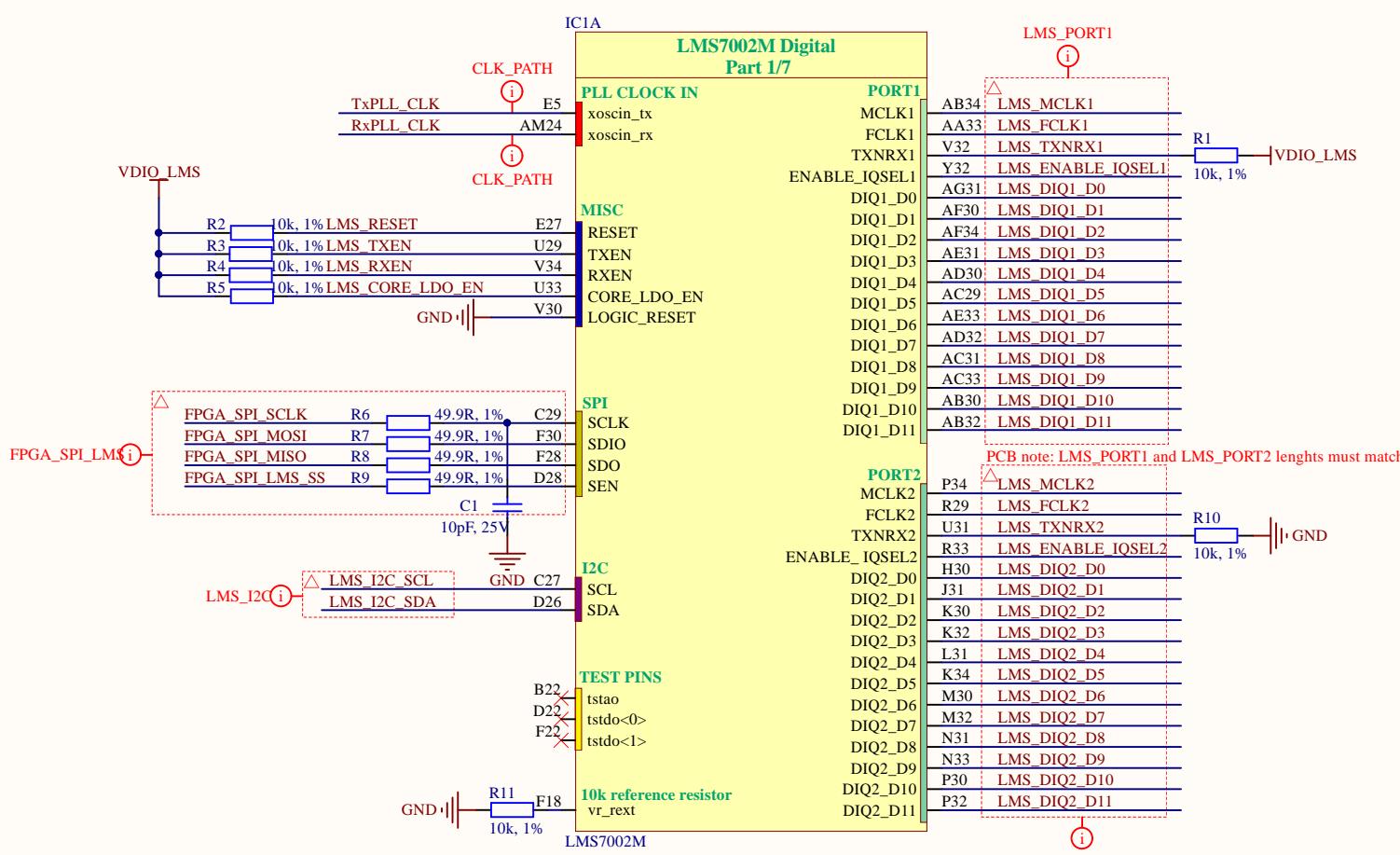


NF elements on sheet: -
Number of NF elements on sheet: 0

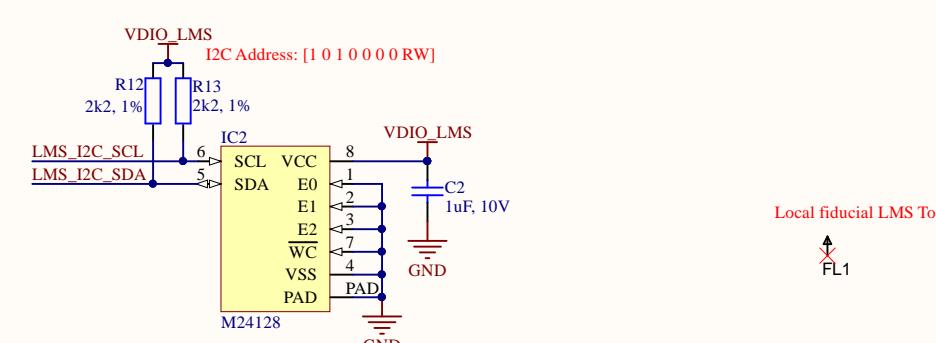
LMS7002M misc

LMS7002M digital circuit

Baseband external IO



LMS EEPROM



Project name: LimeSDR_Mini_Inv3.PrjPcb

Title: LMS7002M misc

Size: A3 Revision: v1.3

Date: 2019-06-25 Time: 15:26:33 Sheet 4 of 9

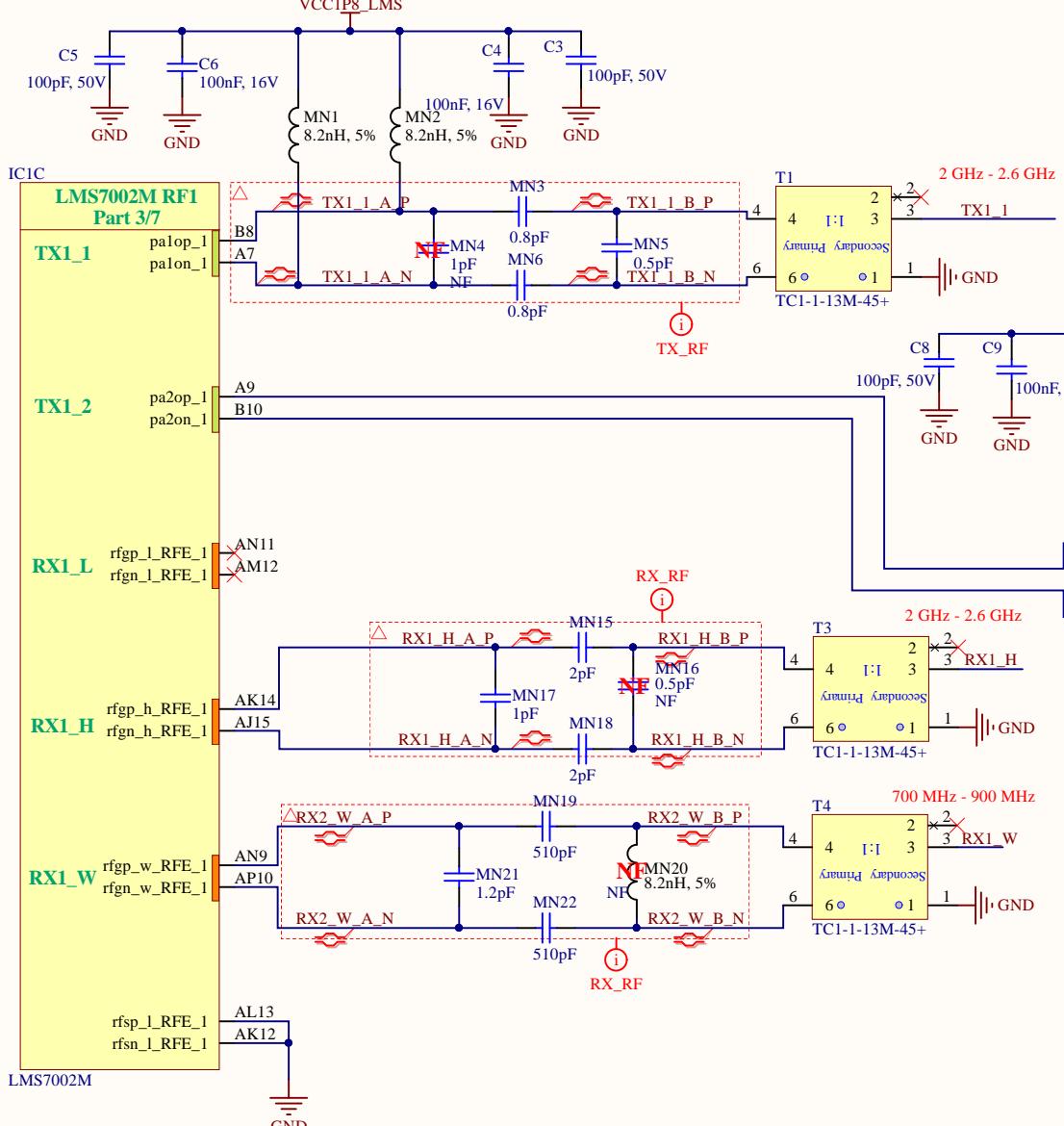
File: 04_LMS7002M_Misc.SchDoc

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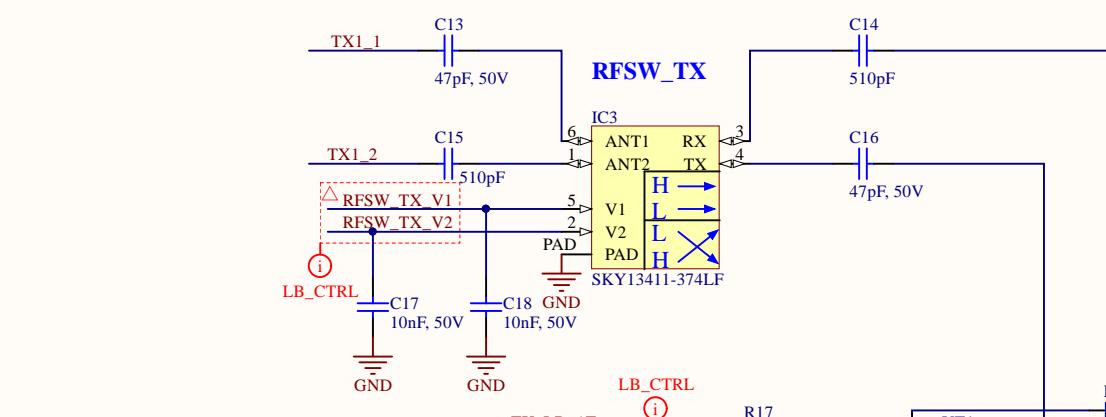
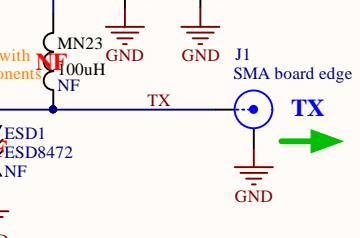
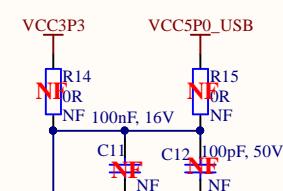
LMS7002M RF circuits

LMS RF Channel 1

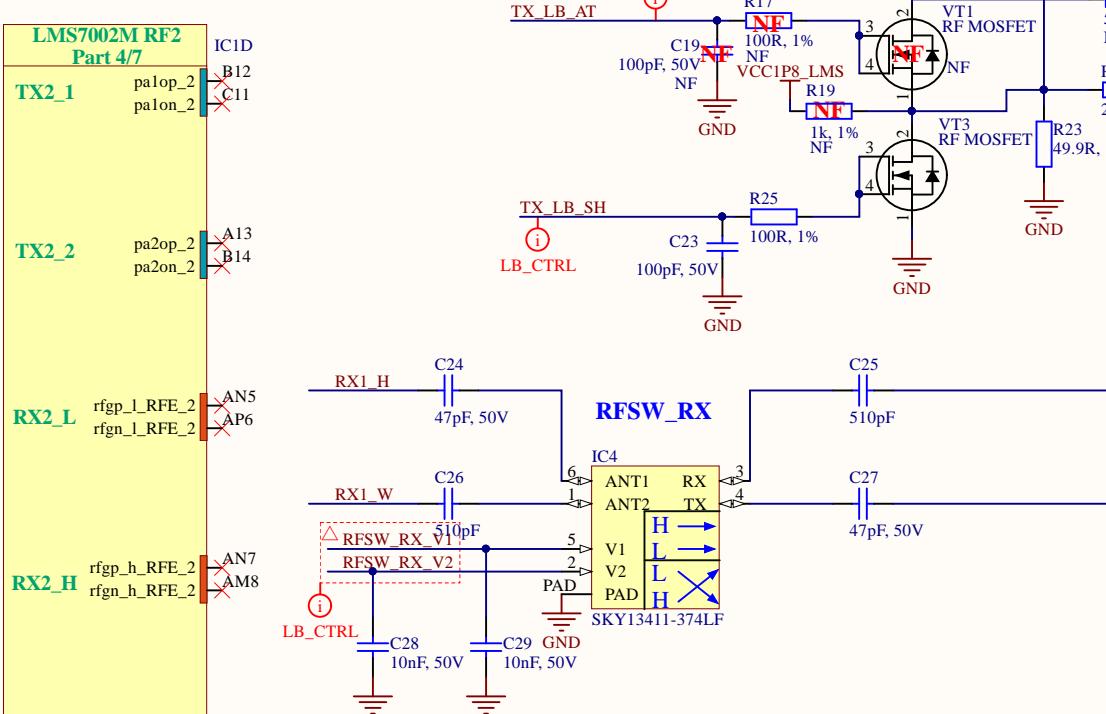


RF truth table		RFSW_TX		RFSW_RX		J1	J2	Loopback
V1	V2	V1	V2	(TX)	(RX)			
H	L	H	L	TX1_1	RX1_H	TX1_2 → RX1_W		
L	H	H	L	TX1_2	RX1_H	TX1_1 → RX1_W		
H	L	L	H	TX1_1	RX1_W	TX1_2 → RX1_H		
L	H	L	H	TX1_2	RX1_W	TX1_1 → RX1_H		

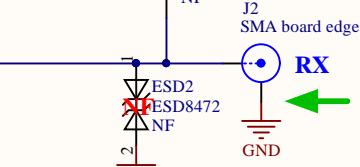
Note: footprint compatible with 0603 and 0805 components



Note: footprint compatible with 0603 and 0805 components



Note: footprint compatible with 0603 and 0805 components



RFSW (SKY13411) truth table

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

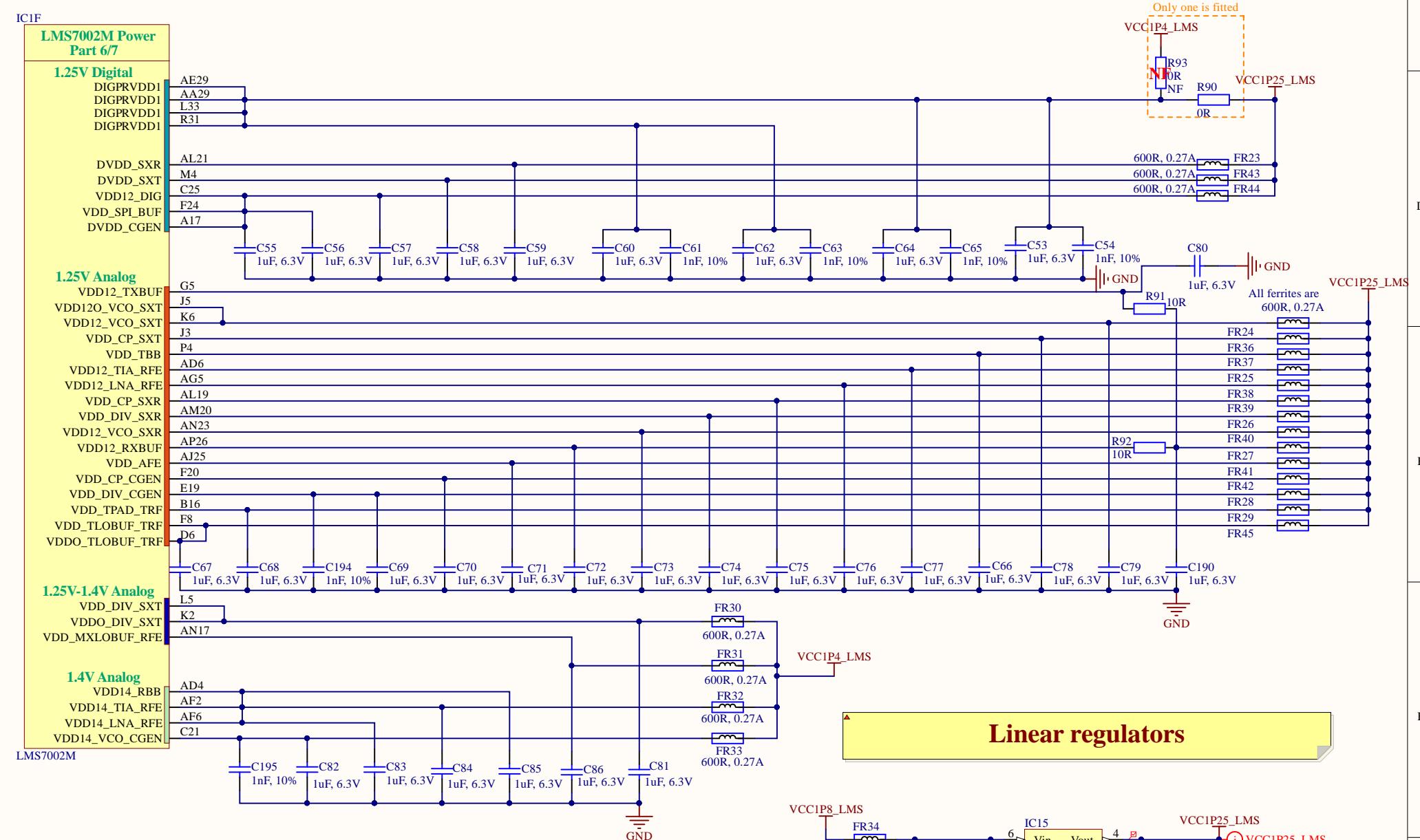
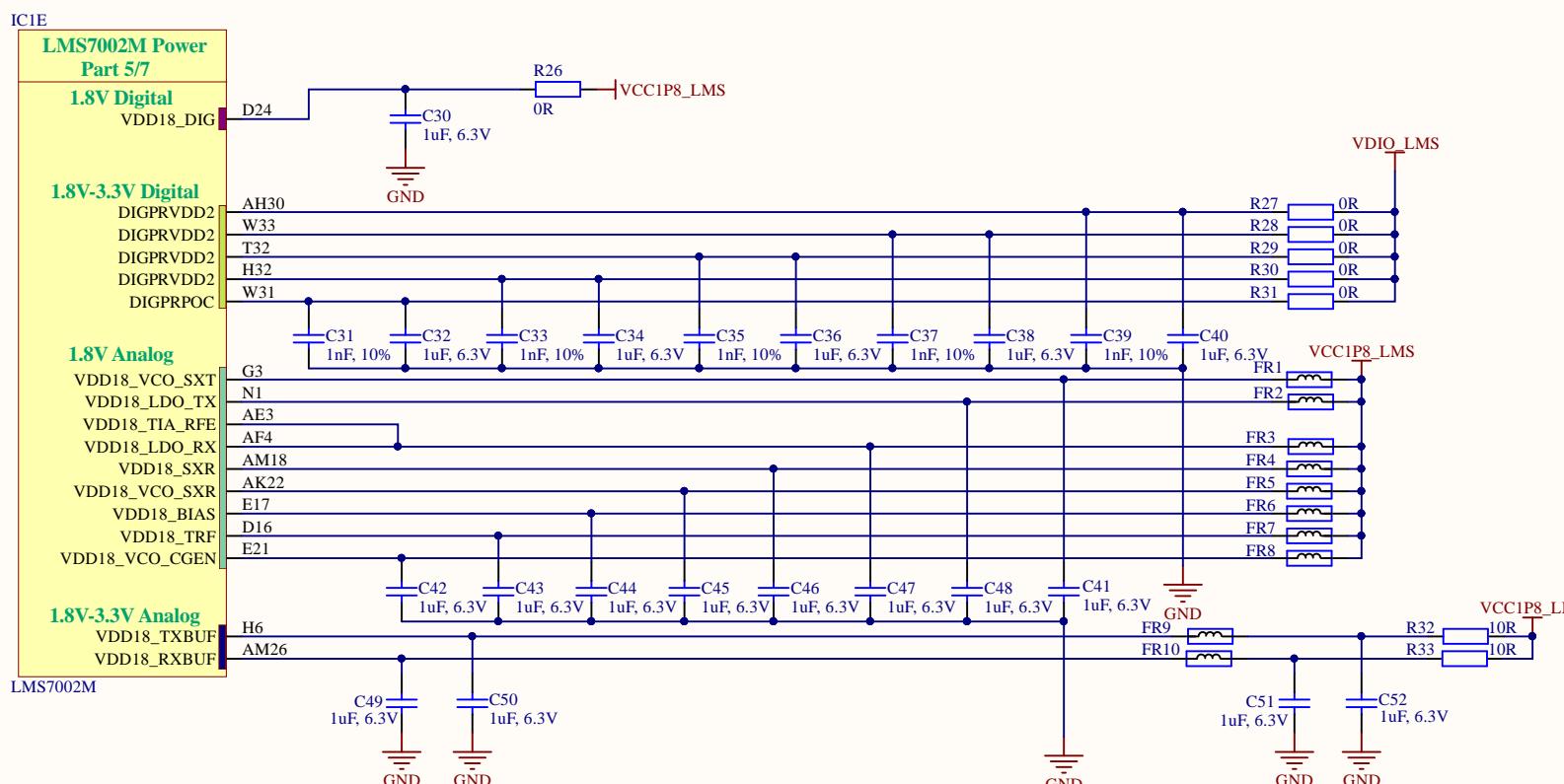
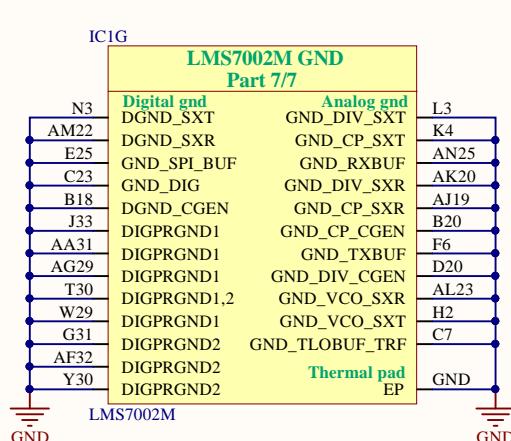
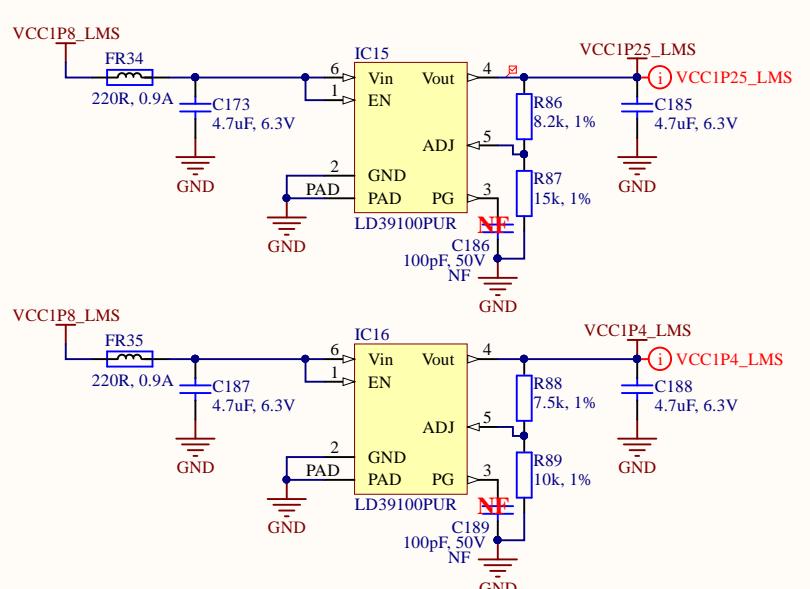
Project name: LimeSDR_Mini_1v3.Pcb

Title: LMS7002M RF	Lime Microsystems Surrey Tech Centre Guildford GU2 7YG Surrey United Kingdom
Size: A3	Revision: v1.3
Date: 2019-06-25	Time: 15:26:35
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

**Linear regulators**

Project name: LimeSDR_Mini_Inv3.PjvPcb

Title: LMS7002M power supply

Size: A3 | Revision: v1.3

Date: 2019-06-25 | Time: 15:26:39 | Sheet 6 of 9

File: 06_LMS7002M_Power.SchDoc

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United Kingdom

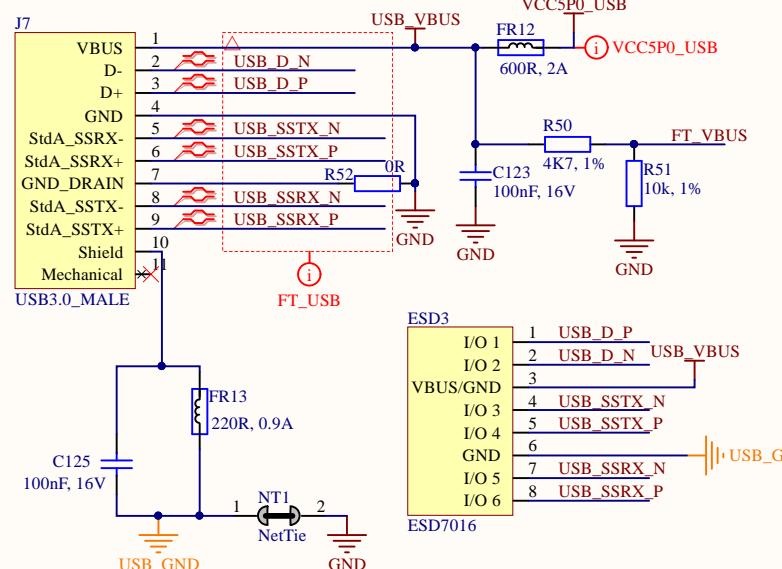


NF elements on sheet: MECH6, MECH7, MECH8, MECH9, MECH10, R95, R96

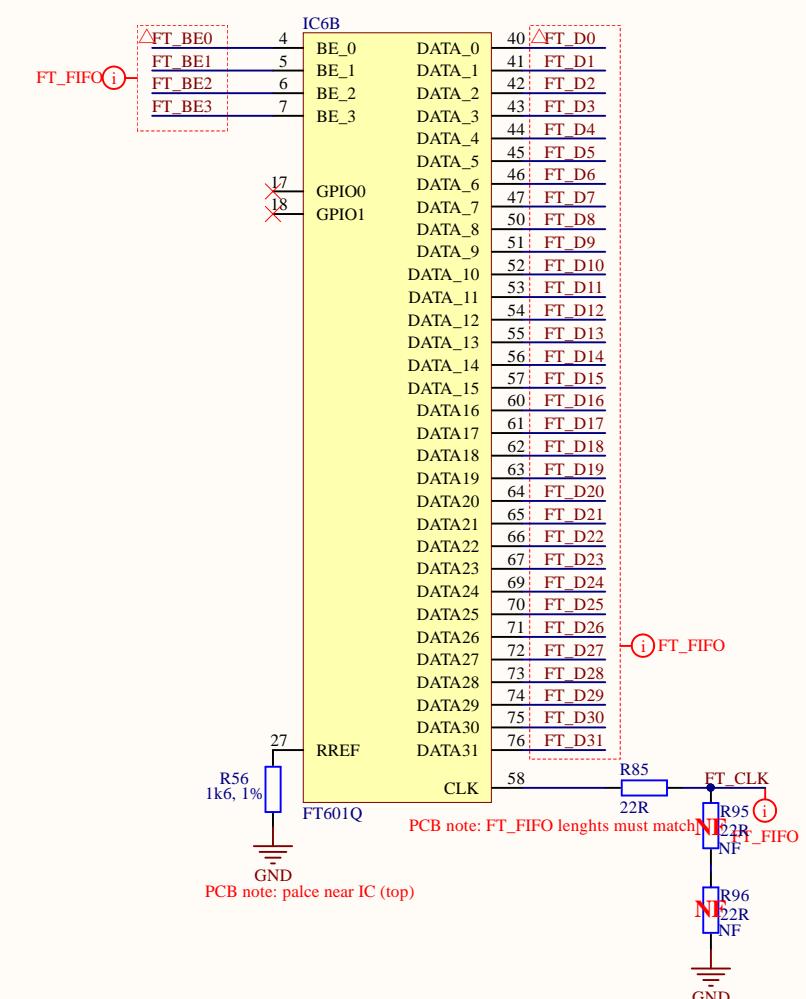
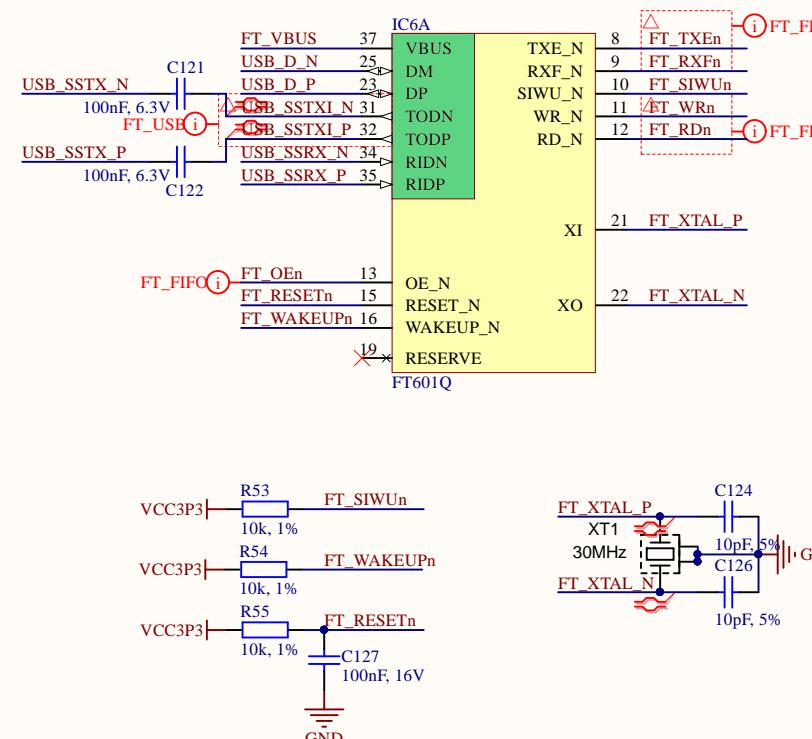
Number of NF elements on sheet: 7

FTDI (USB3) core

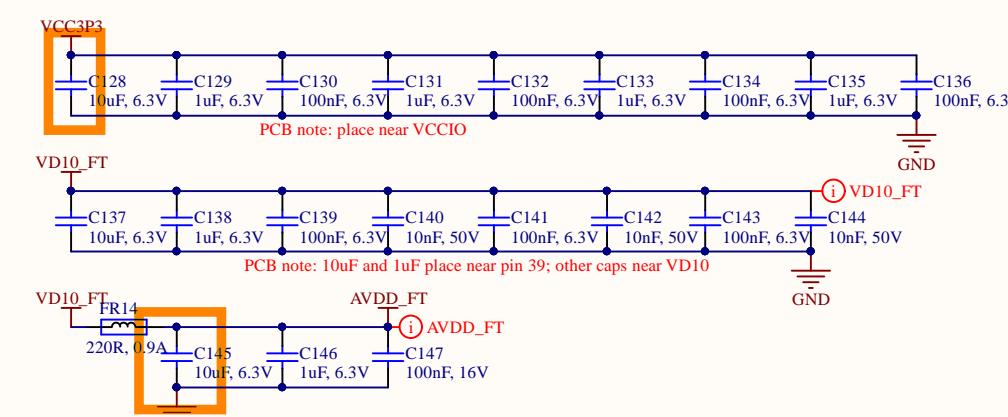
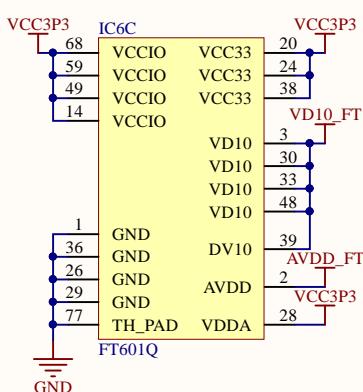
USB3.0 plug and



FTDI digital interfaces



FTDI Power



Schematic notes: marked 10 μ F caps are not crucial and can be removed to reduce BOM cost.

Project name: LimeSDR Mini Lv3 PriPch

Title: *USB3.0 device*

Sign: A3 Revision: v1.3

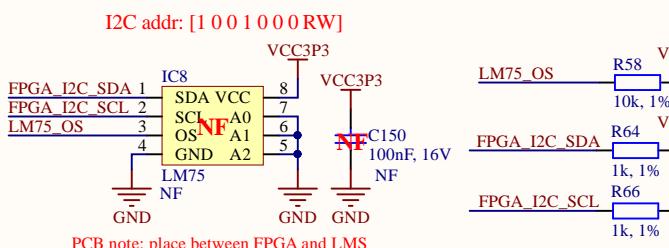
Date: 2019-06-25 Time: 15:26:45 Sheet 8 of 9

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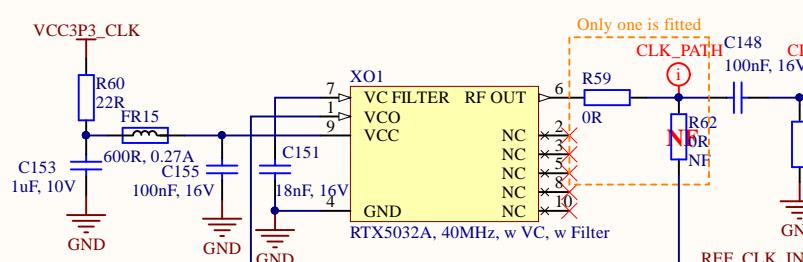


Misc

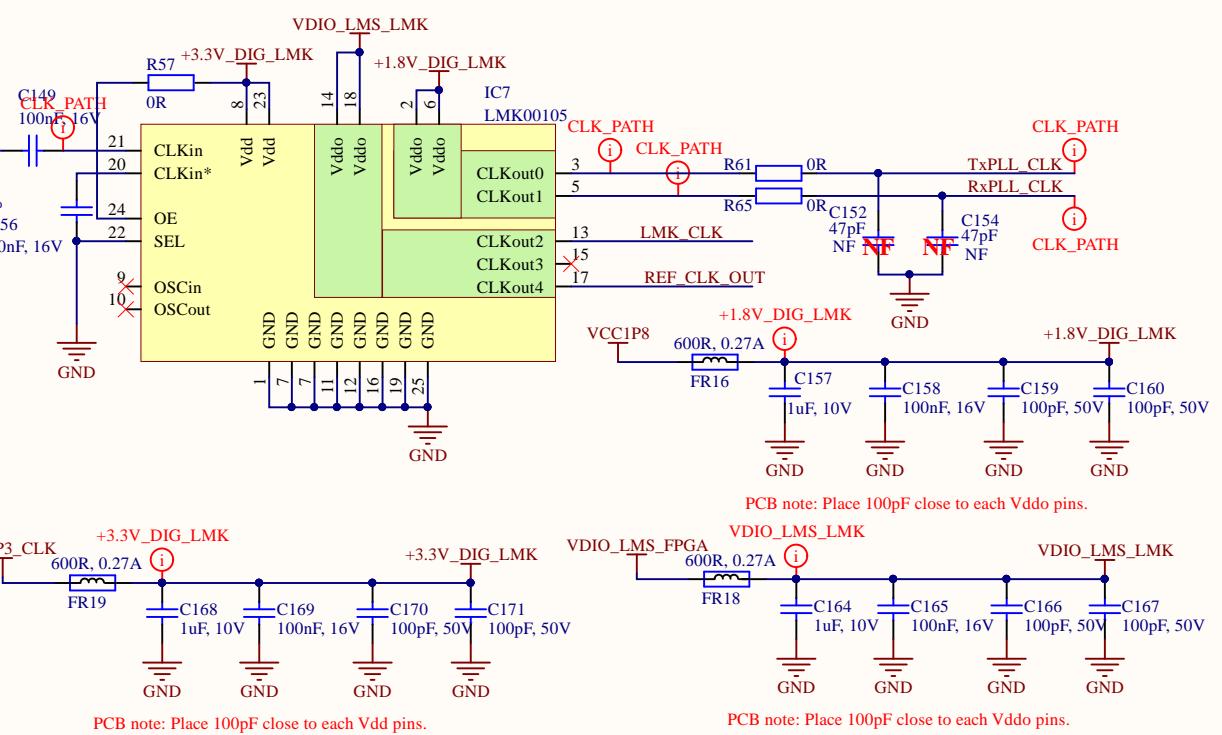
I2C Temperature sensor



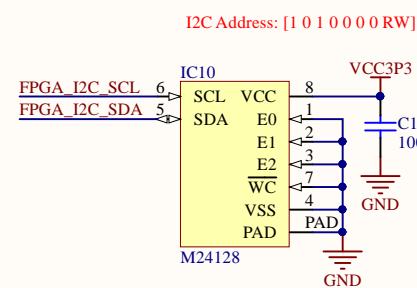
(VC)TCXO



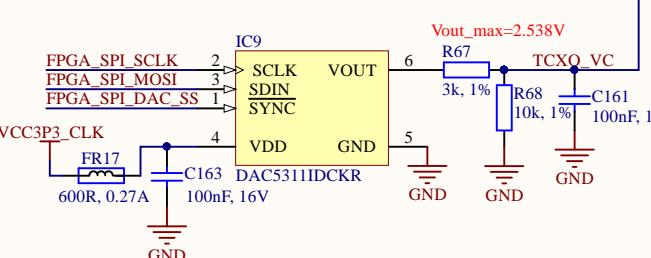
Clock buffer



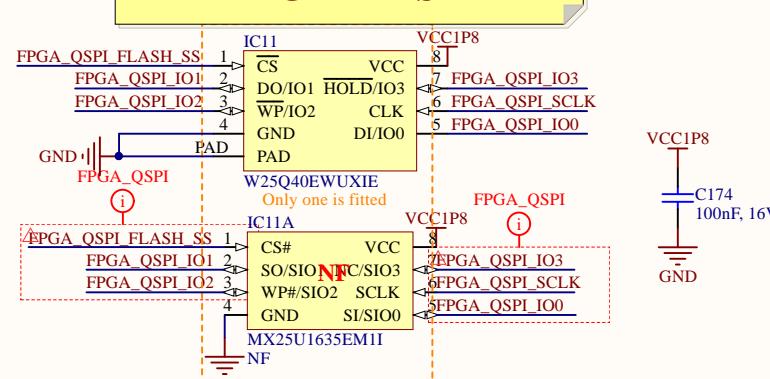
I2C EEPROM



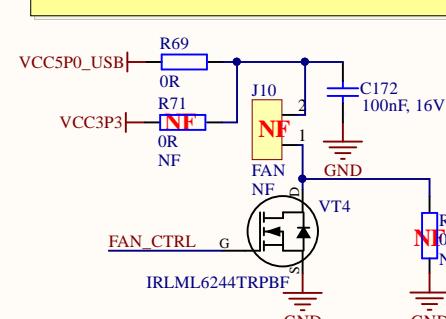
XO DAC



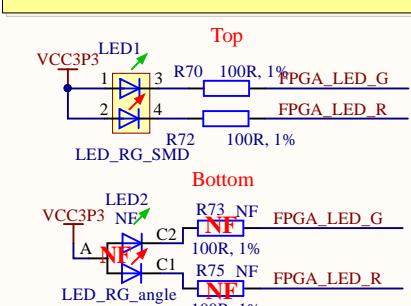
FPGA FLASH



FAN control



LED (Red/Green)



Switching regulator (1.8V)

