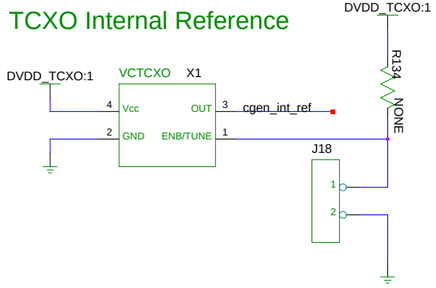
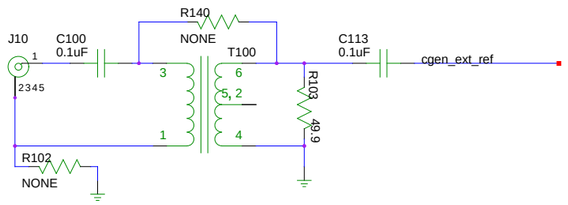
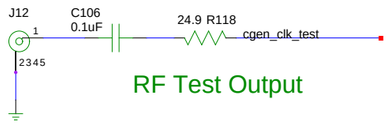
TCXO Internal Reference



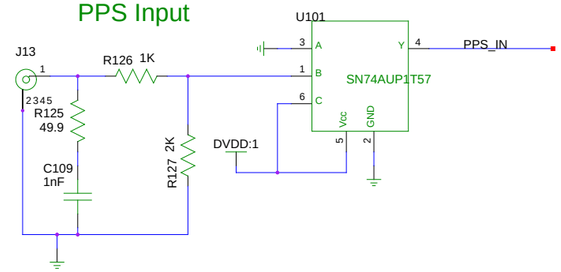
10MHz External Reference

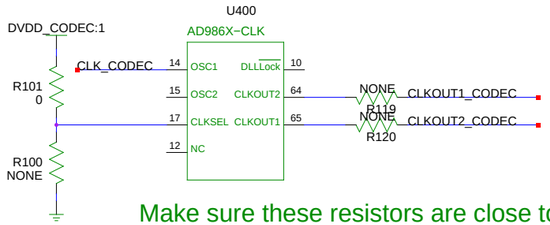


RF Test Output



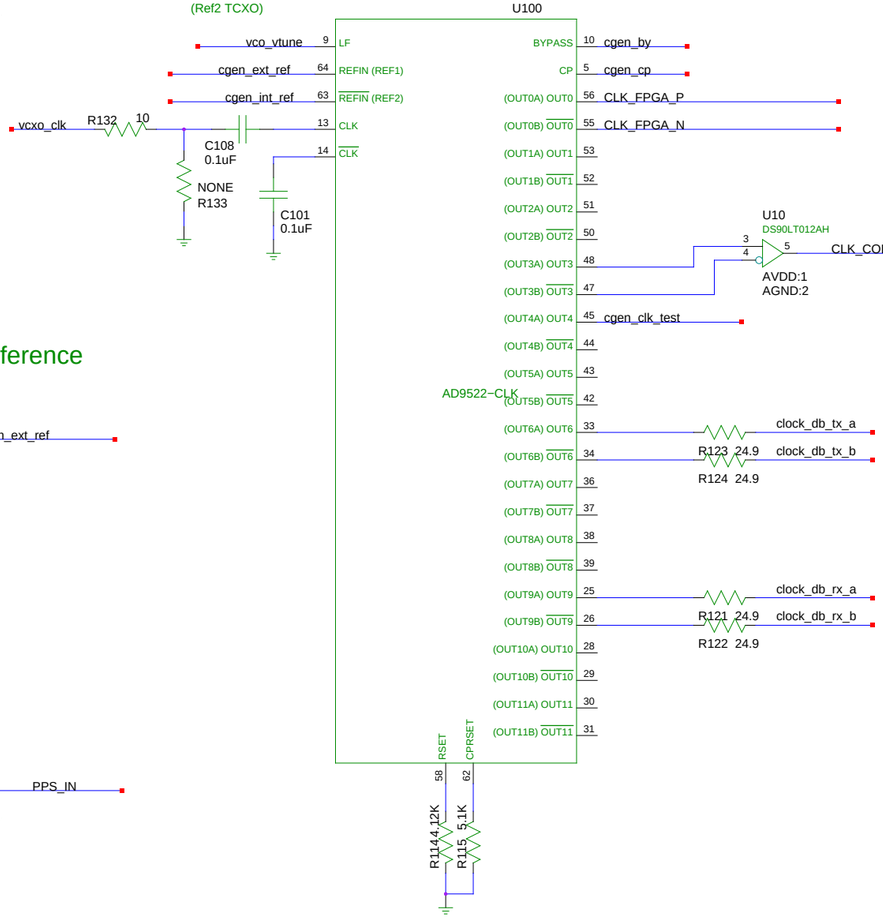
PPS Input

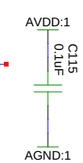


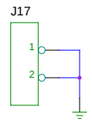


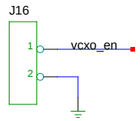
Make sure these resistors are close to U400

Prefer Ref1 Mode
(Ref2 TCXO)

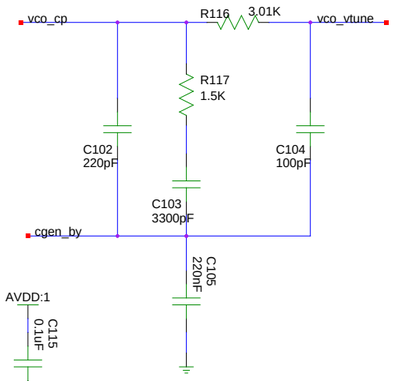




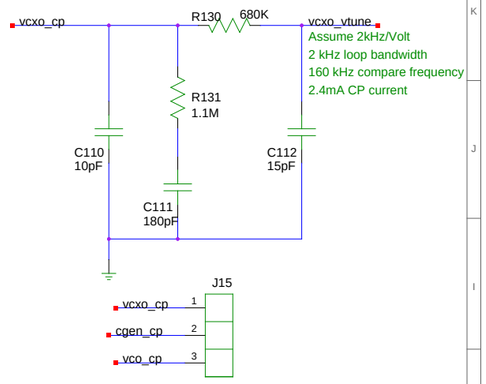


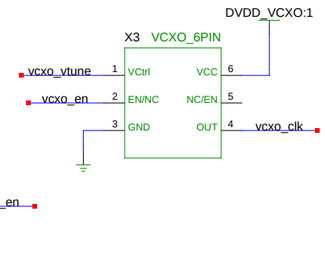


loop filter for internal VCO

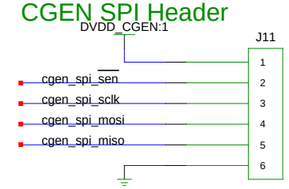


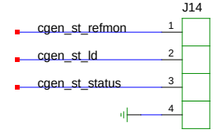
loop filter for VCXO

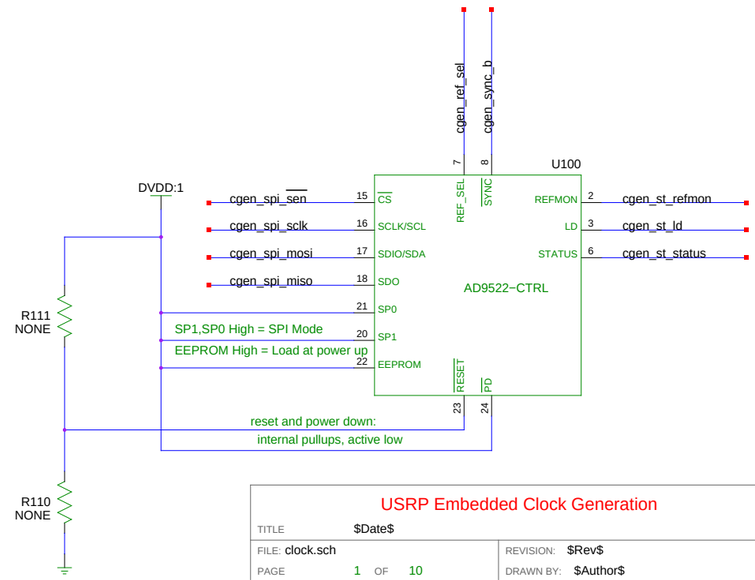




CGEN SPI Header







USRP Embedded Clock Generation

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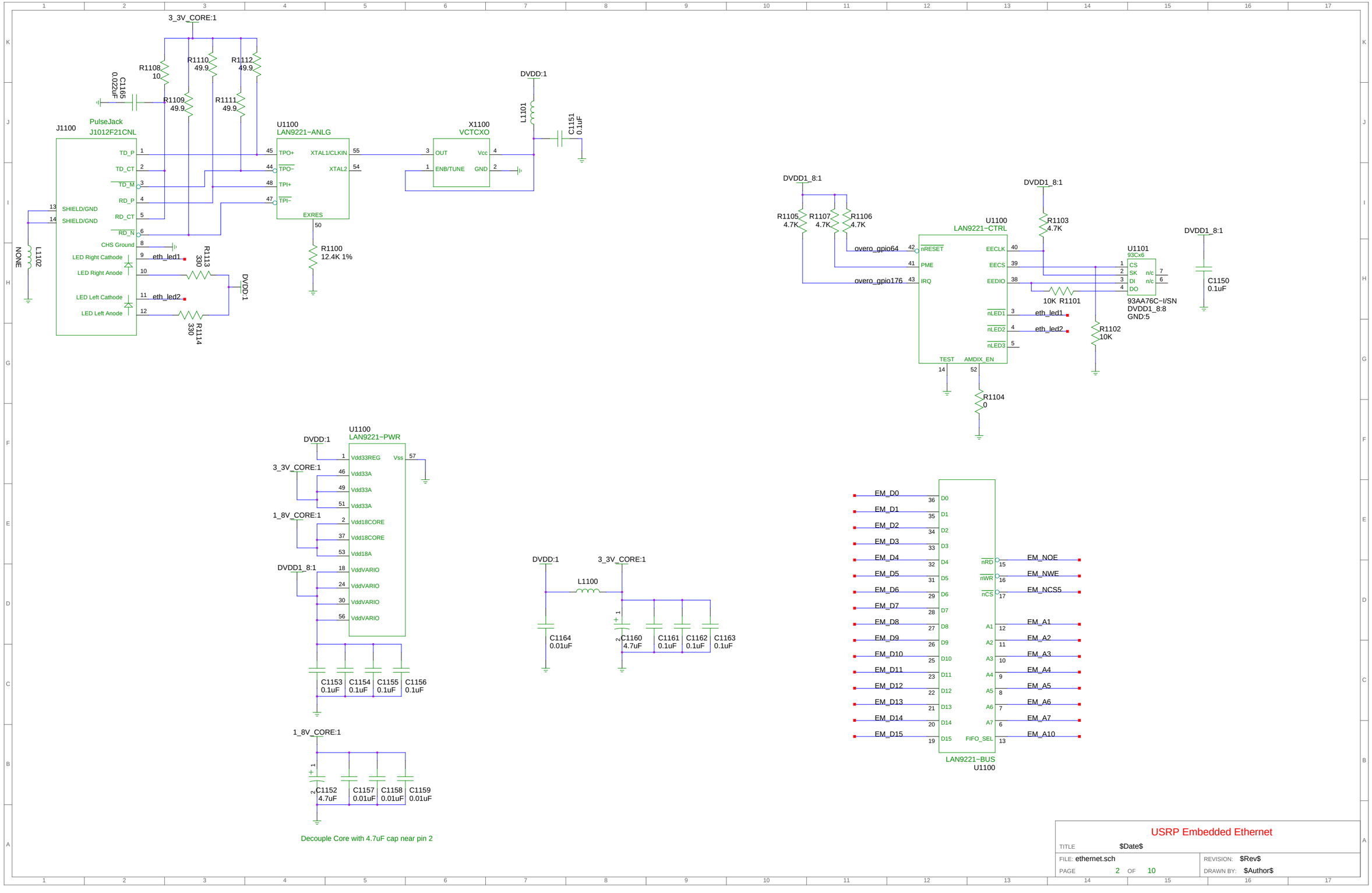
FILE: clock.sch	REVISION: Rev
PAGE 1 OF 10	DRAWN BY: $Author$



USRP Embedded Ethernet

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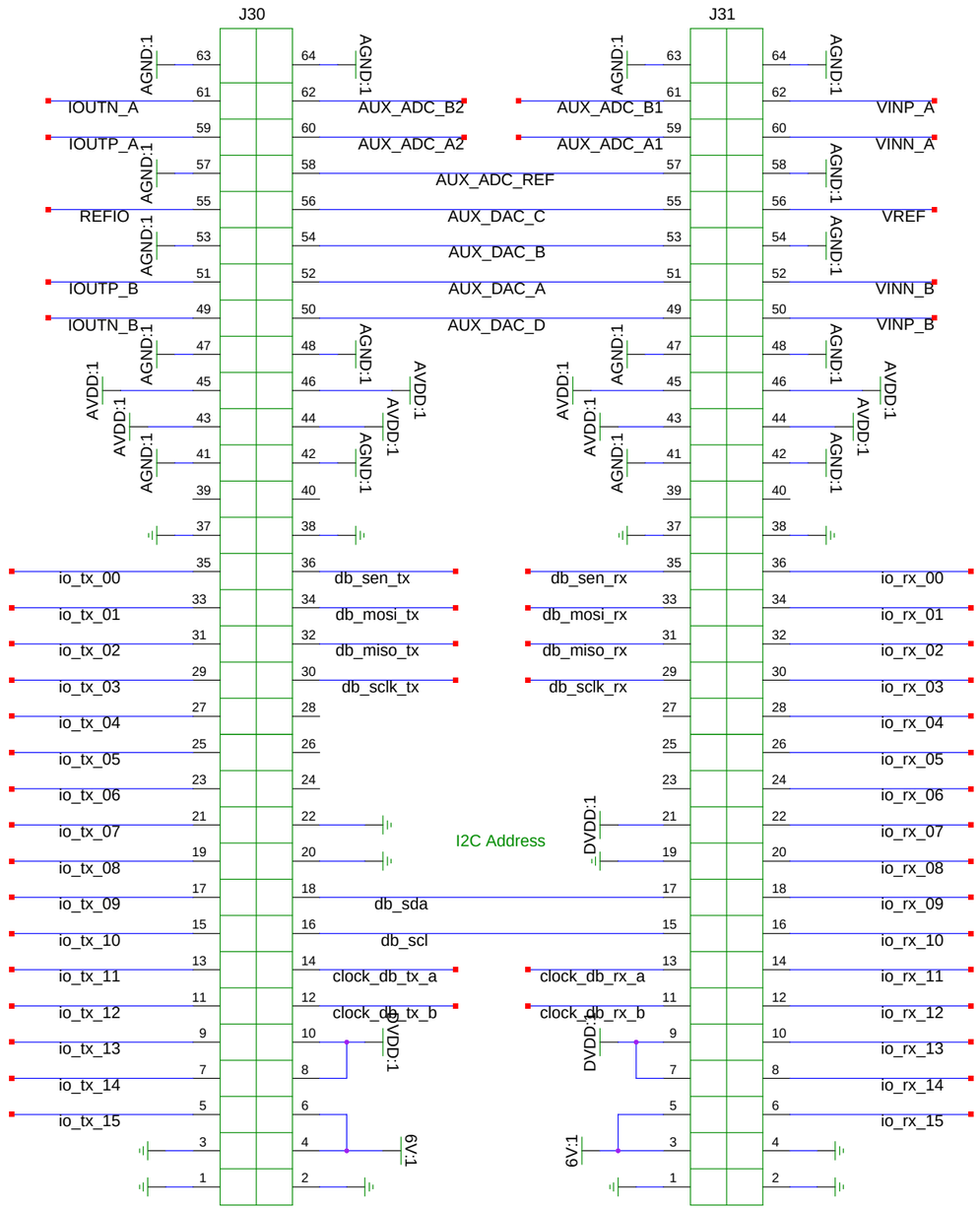

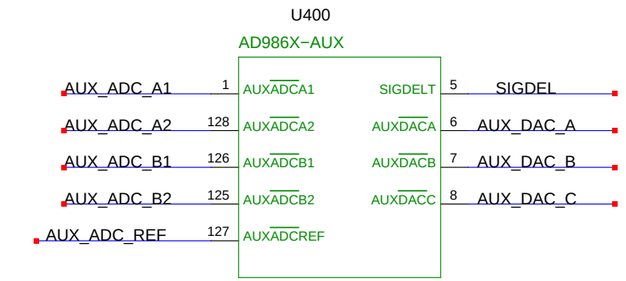

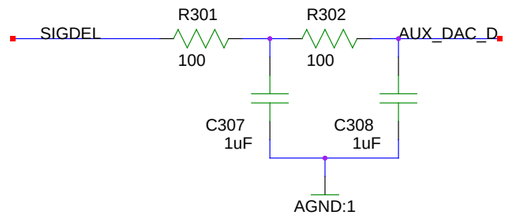

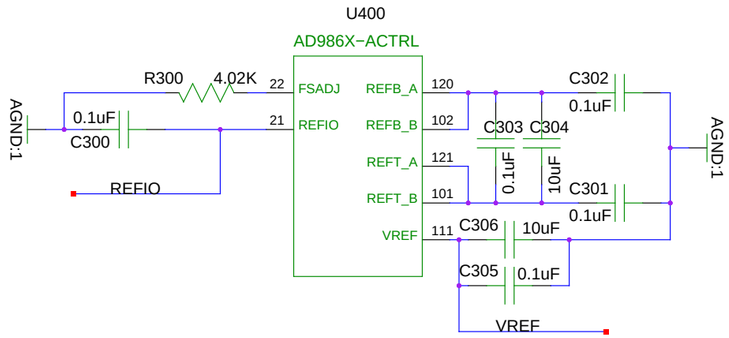

USRP Embedded Daughterboad Interface

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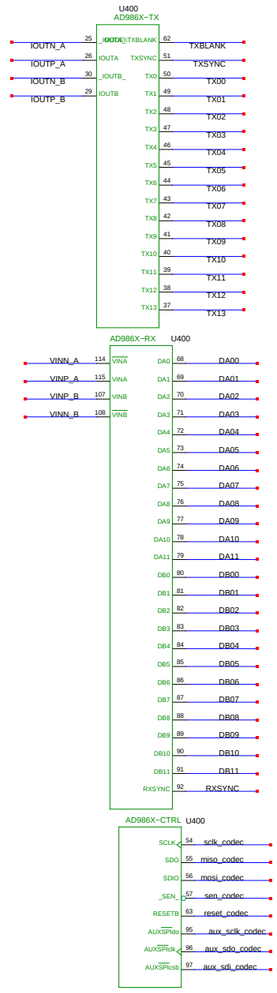

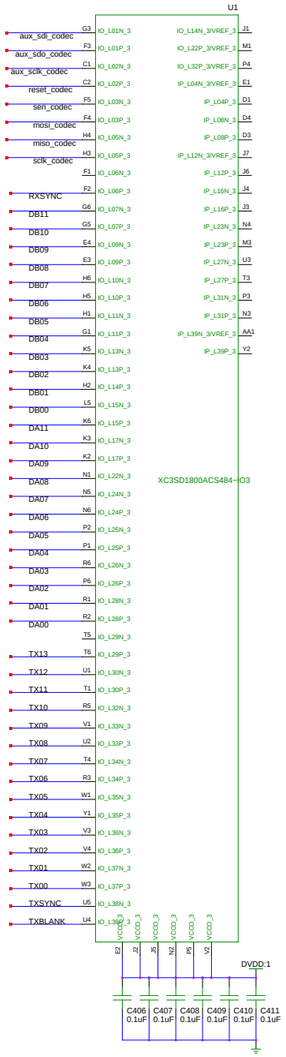

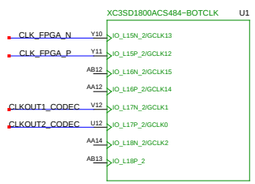

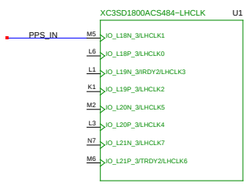

USRP Embedded FPGA and CODECs

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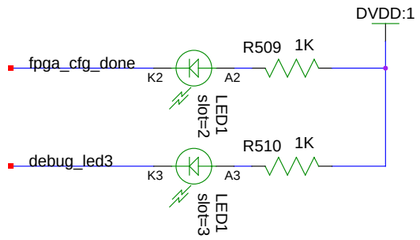
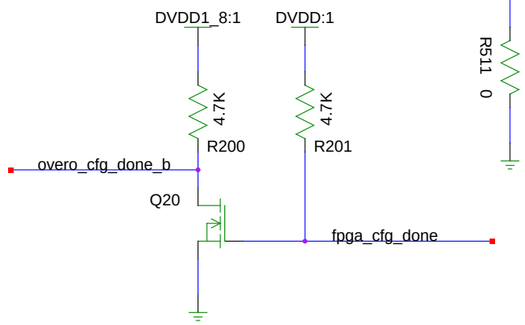
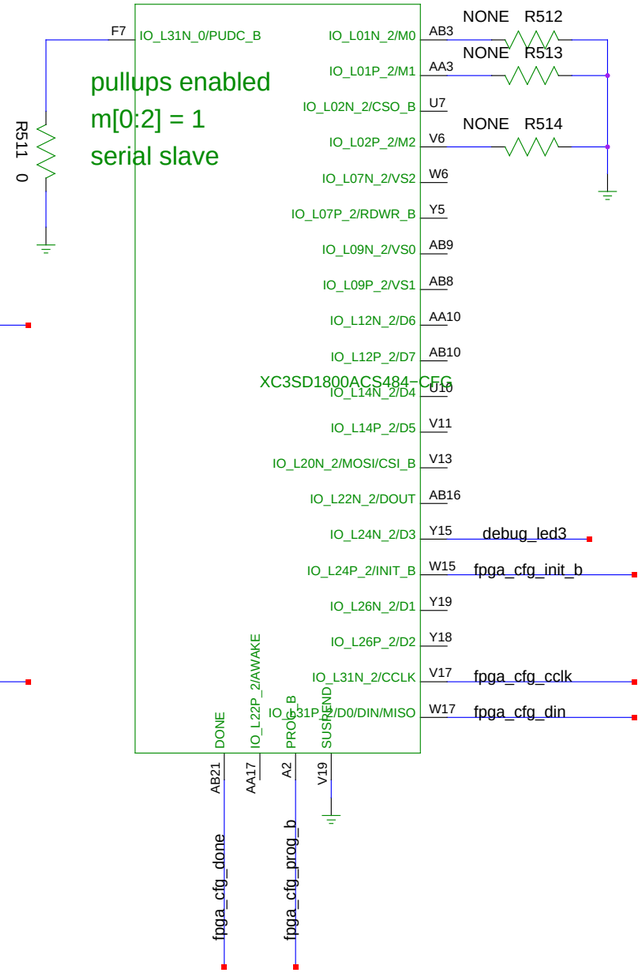
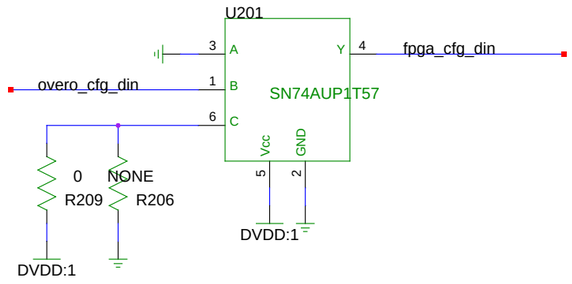
convert fpga config outputs

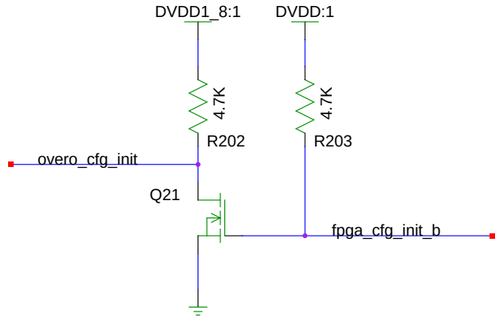


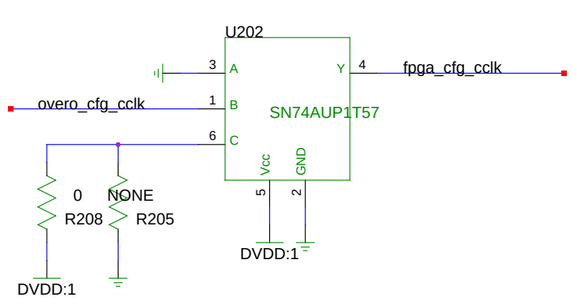


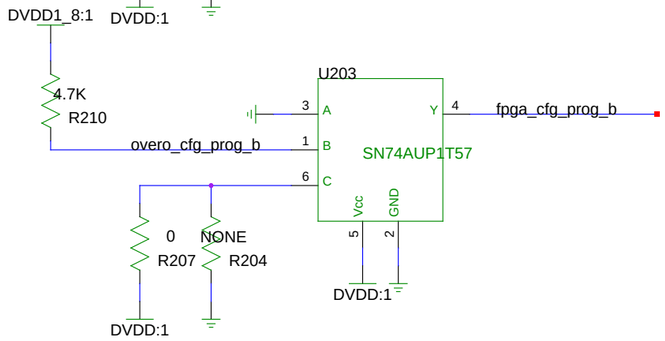


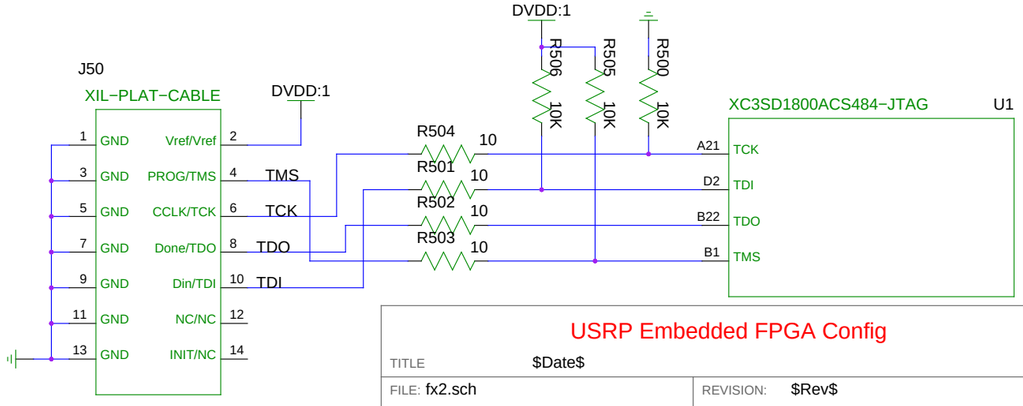
convert fpga config inputs











USRP Embedded FPGA Config

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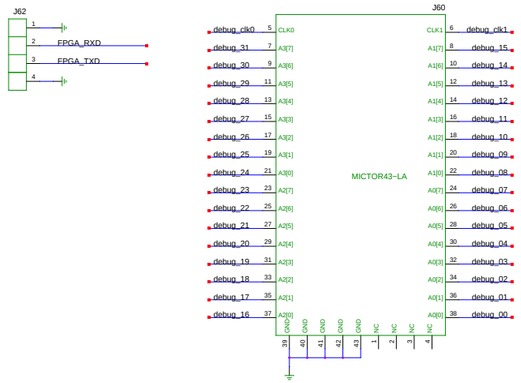
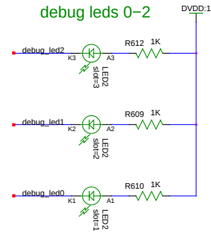
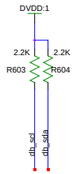
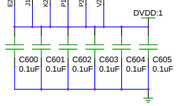
debug connector



debug leds 0-2







push button

USRP Embedded FPGA and Debug

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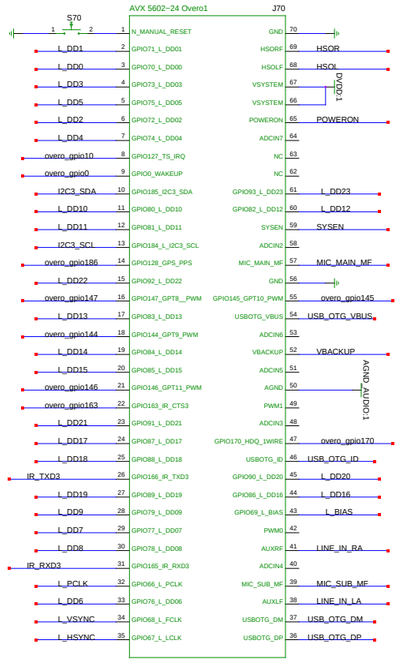

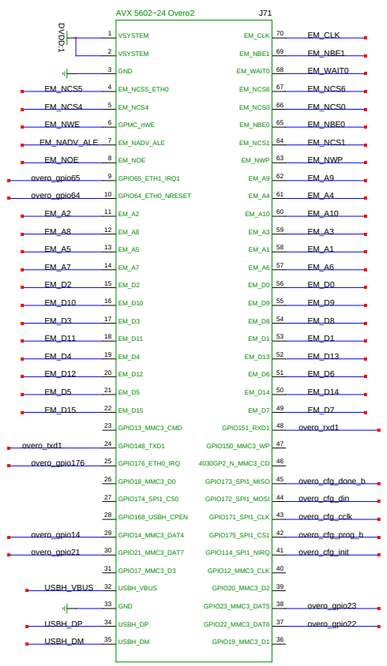

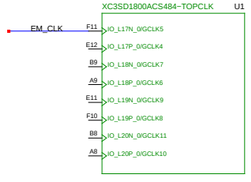

USRP Embedded FPGA and Overo Interface

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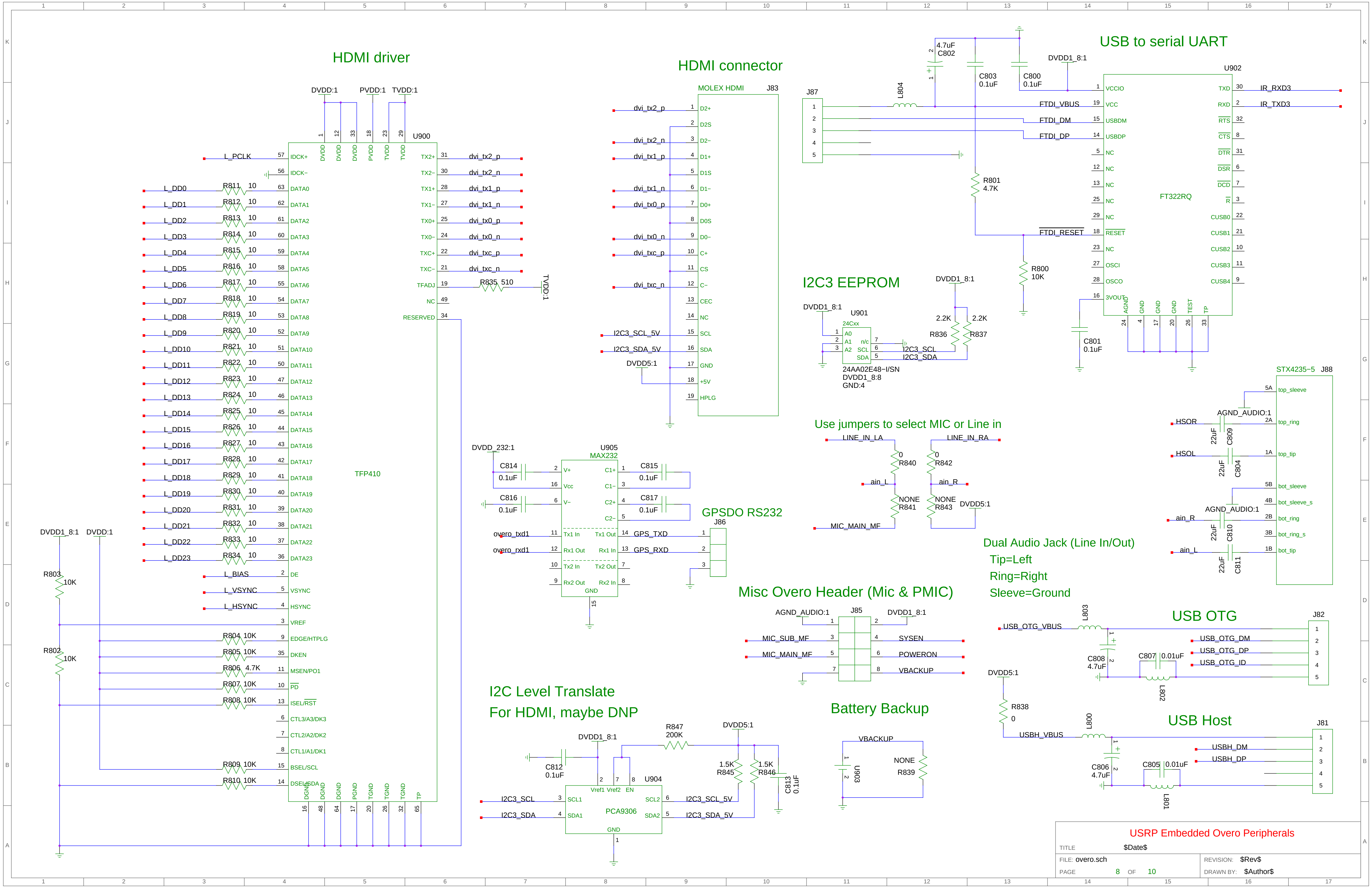
PAGE: 7	OF: 10	DRAWN BY:	$Author$


HDMI driver
U900
TFP410
HDMI connector
MOLEX HDMI J83
USB to serial UART
U902
FT322RQ
I2C3 EEPROM
U901
24AA02E48-I/SN
DVDD1_8:8
GND:4
Use jumpers to select MIC or Line in
GPSDO RS232
J86
U905
MAX232
Dual Audio Jack (Line In/Out)
Tip=Left
Ring=Right
Sleeve=Ground
STX4235-5 J88
Misc Overo Header (Mic & PMIC)
J85
USB OTG
J82
I2C Level Translate
For HDMI, maybe DNP
U904
PCA9306
Battery Backup
U903
USB Host
J81
USRP Embedded Overo Peripherals
TITLE $Date$
FILE: overo.sch
REVISION: Rev
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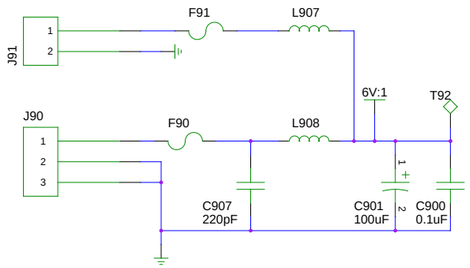
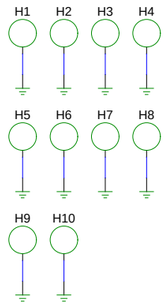
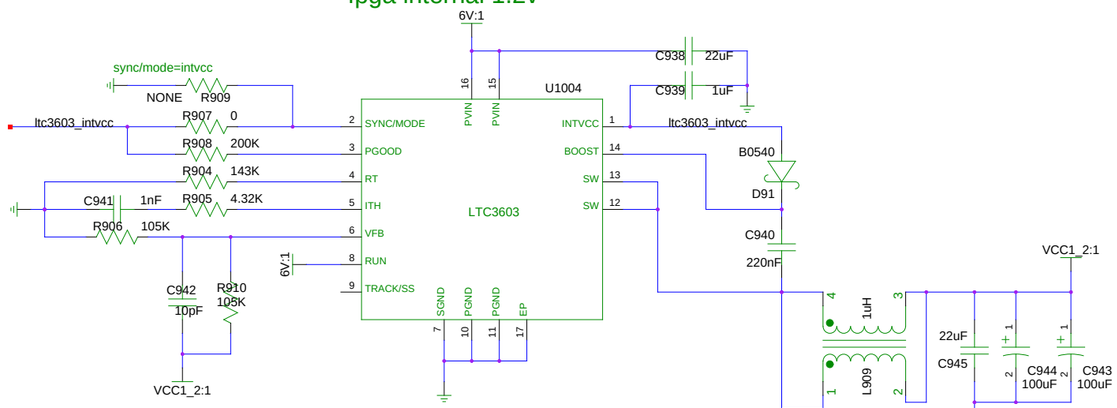
DRAWN BY: $Author$

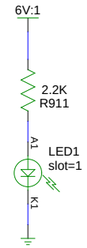
power supply 6v



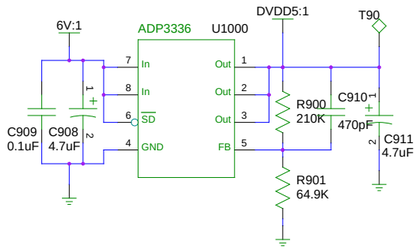


fpga internal 1.2v

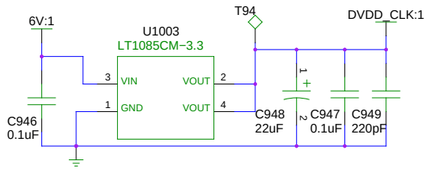




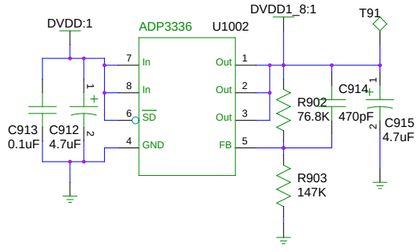
usb host and hdmi connector 5v



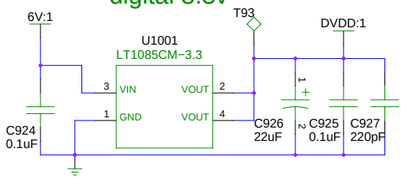
clock 3.3v



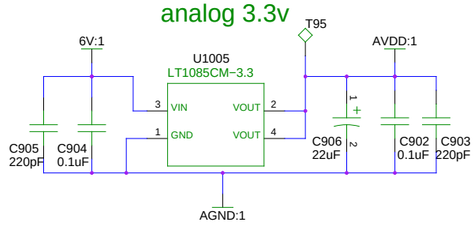
overo gpio 1.8v



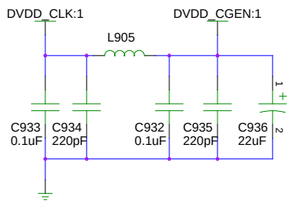
digital 3.3v



analog 3.3v



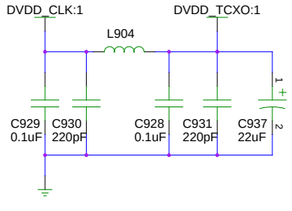
clock gen 3.3v



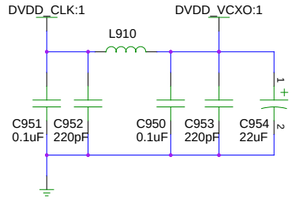
analog ground audio

analog ground

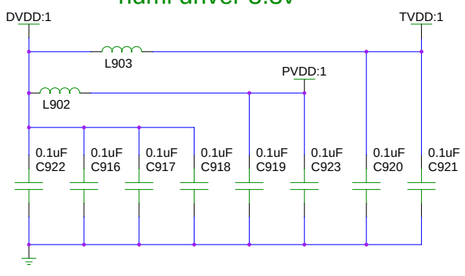
tcxo 3.3v



vcxo 3.3v



hdmi driver 3.3v



USRP Embedded Power Generation

TITLE	$Date$		
FILE: power_gen.sch		REVISION:	Rev
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USRP Embedded Power Application

TITLE:	$Date$
FILE:	power.sch
REVISION:	Rev
DRAWN BY:	$Author$
PAGE	10 OF 10

U1
XC3SD1800ACS484-PWR
DVDD:1
VCC1_2:1
AGND:1
AVDD:1
DVDD_CODEC:1
L900
U400
AD9866-PWR
C1110
22uF
U001
AD9522-PWR
DVDD_CGEN:1
VCC1_2:1
DVDD:1
L1000
DVDD5:1
J100
fan connector 5V
J101
GPS power connector 5V
6V:1