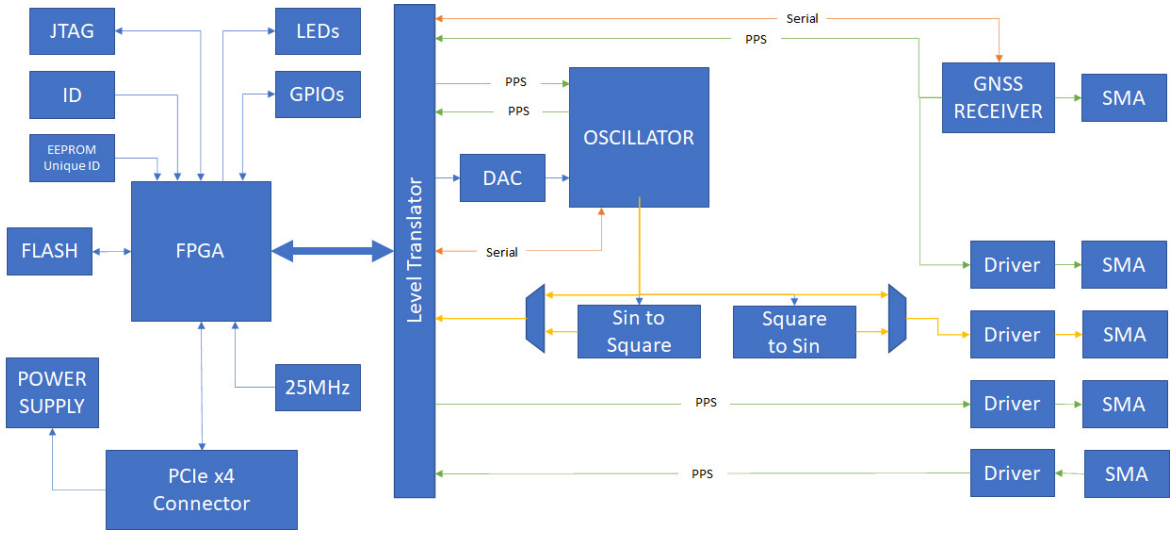

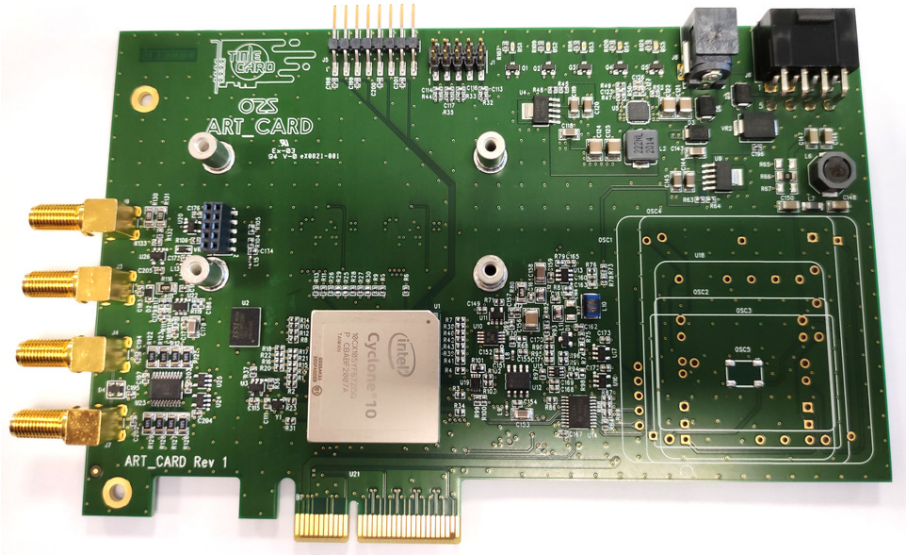

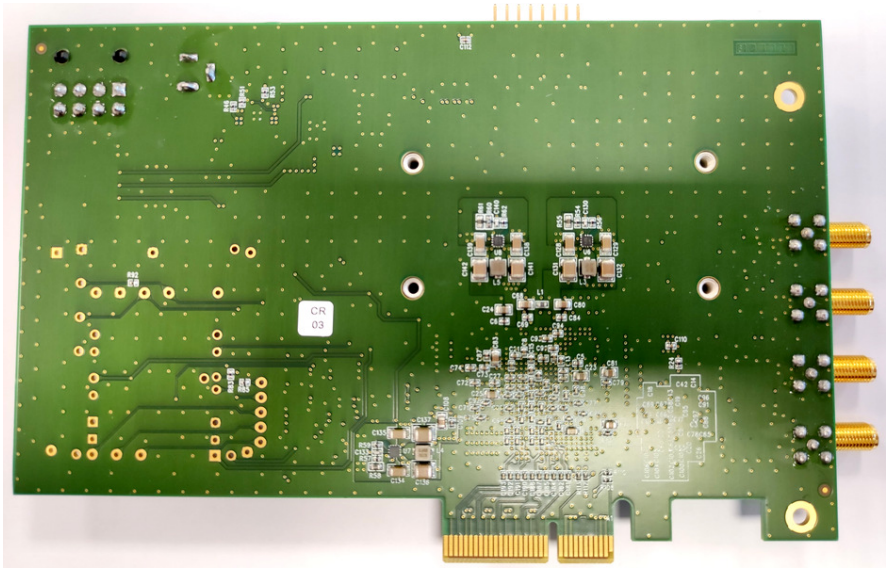

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Title: OVERVIEW		
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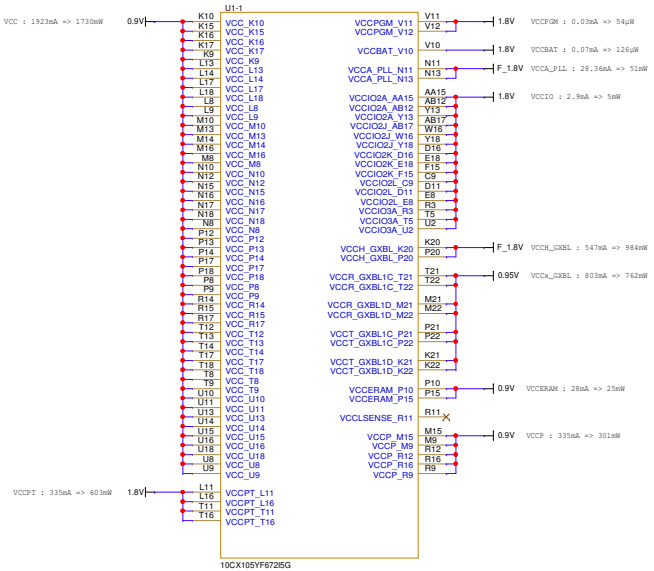
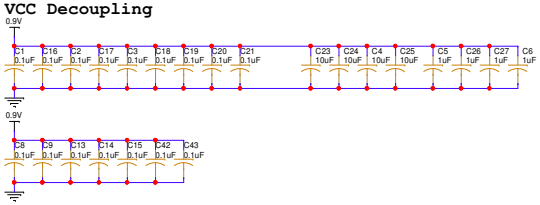
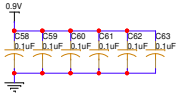
FPGA POWER SUPPLY



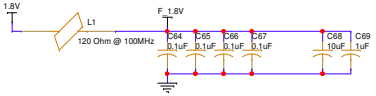
VCC Decoupling



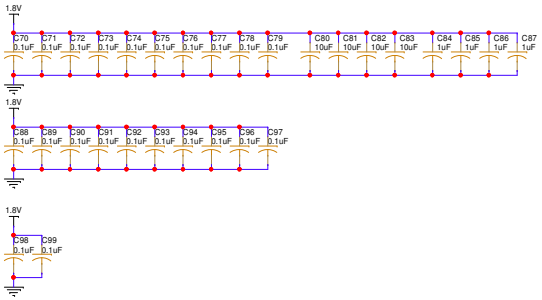
VCCP and VCCERAM Decoupling



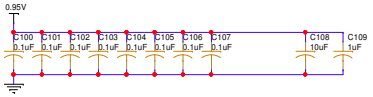
VCCA_PLL and VCCH_GXBL Decoupling

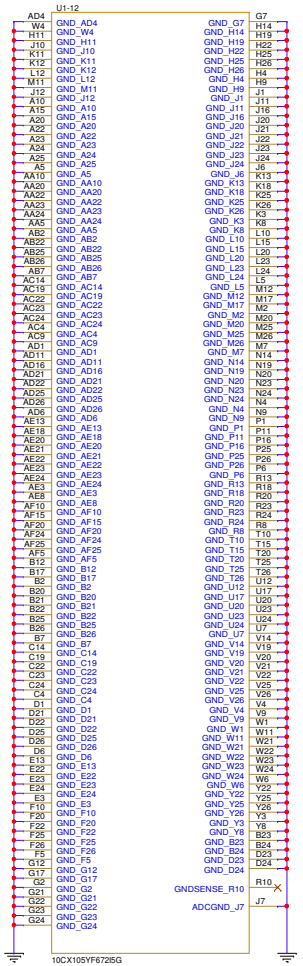


VCCPT, VCCPGM, VCCBAT and VCCIO Decoupling



VCCR/VCCT Decoupling





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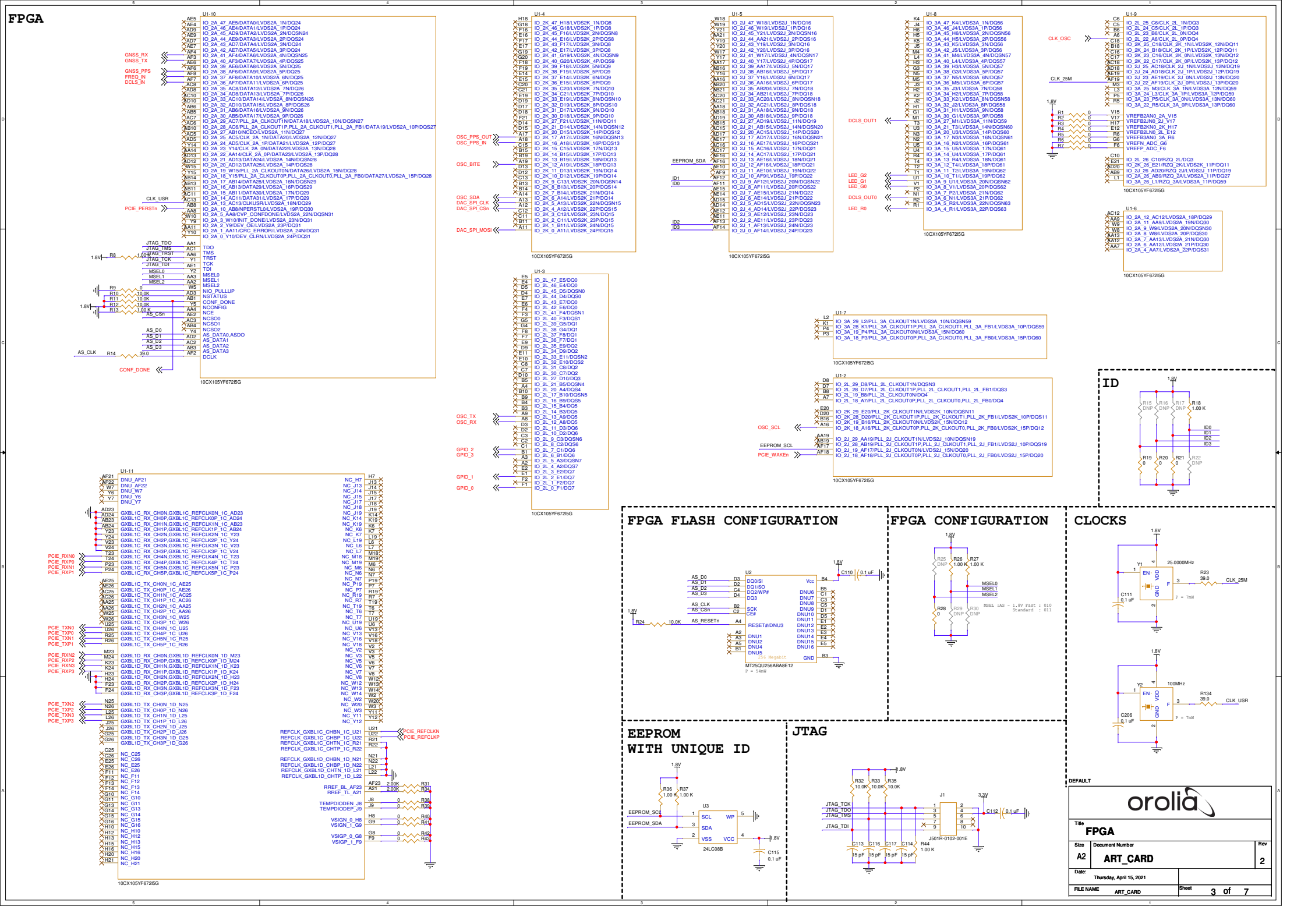
FPGA
U1-10
10CX105YF672I5G
U1-4
10CX105YF672I5G
U1-5
10CX105YF672I5G
U1-8
10CX105YF672I5G
U1-9
10CX105YF672I5G
U1-6
10CX105YF672I5G
U1-3
10CX105YF672I5G
U1-7
10CX105YF672I5G
U1-2
10CX105YF672I5G
U1-11
10CX105YF672I5G
ID
FPGA FLASH CONFIGURATION
FPGA CONFIGURATION
CLOCKS
EEPROM
WITH UNIQUE ID
JTAG
DEFAULT
orolia
Title
FPGA
Size
A2
Document Number
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Rev
2
Date:
Thursday, April 15, 2021
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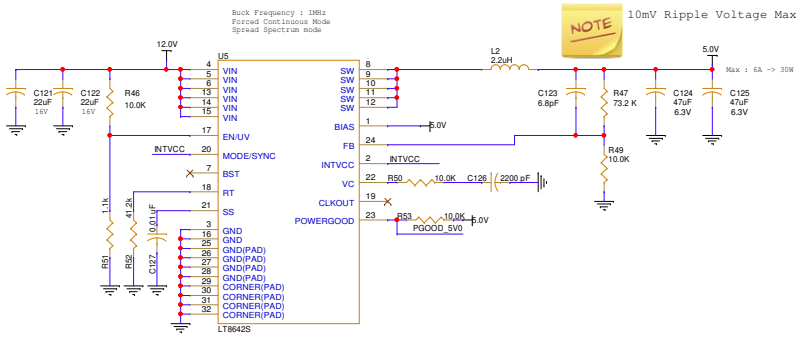
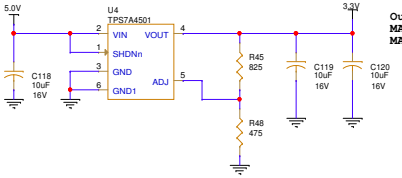
```
POWER NEED  : FPGA : OCXO : Comp : TOTAL
on 12V      :      :      :    :  7500 mW
On 11V_ANA  :      :      :  80 :    80 mW
On 5.0V     :      :      : 350 :   350 mW
On 3.3V     :      :      : 243 :   243 mW
On 1.8V     : 1643 :      :  61 :  1704 mW
On 0.95V    :  762 :      :     :   762 mW
On 0.9V     : 2056 :      :     :  2056 mW
                                -> 12695 mW
```

12V to 5V Switch Converter

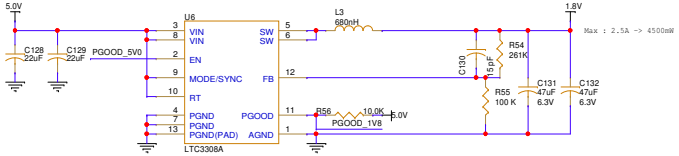


5V to 3.3V LDO Converter

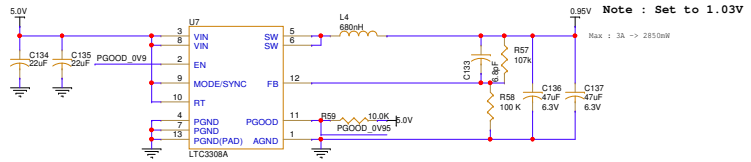


Output : 3.3V
MAX : 0.46A / 1.53W @ Tamb = 85°C
MAX : 0.73A / 2.42W @ Tamb = 60°C

5V to 1.8V Switch Converter

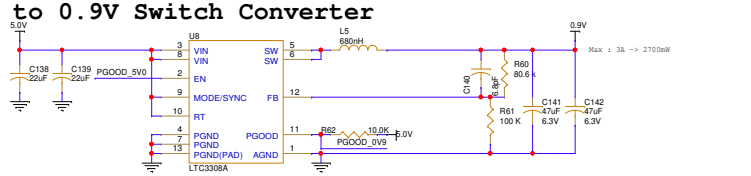


5V to 0.95V Switch Converter

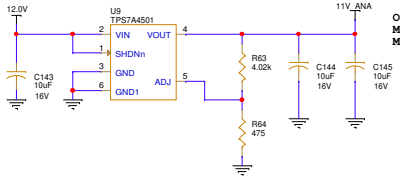


Note : Set to 1.03V

5V to 0.9V Switch Converter



ANALOG POWER SUPPLY



OUTPUT : 11V
MAX : 0.79A / 8.69W @ Tamb = 85°C
MAX : 1.25A / 13.75W @ Tamb = 60°C

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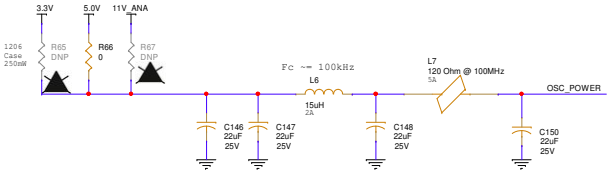
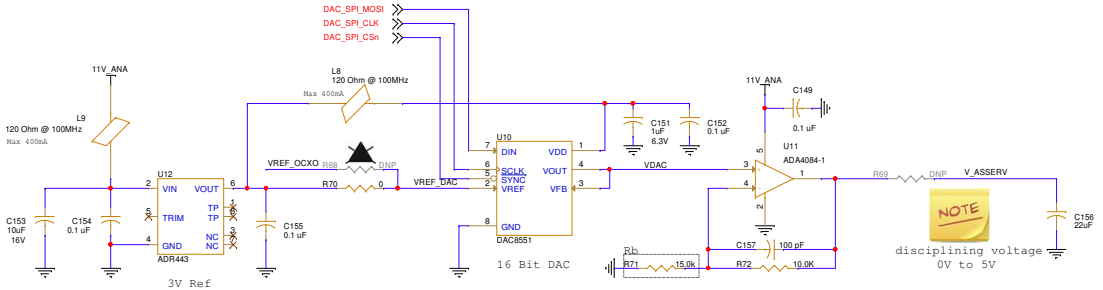
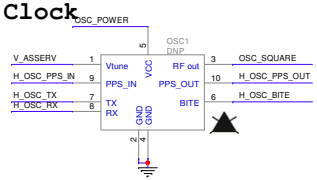
OSCILLATOR POWER SUPPLY



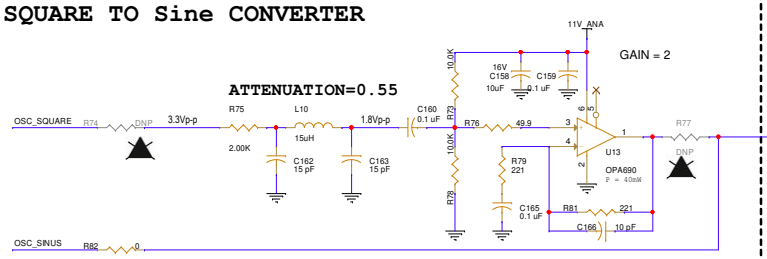
OSCILLATOR CONTROL VOLTAGE



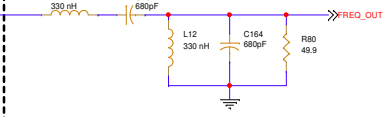
MiniRubidium
Miniature Atomic Clock



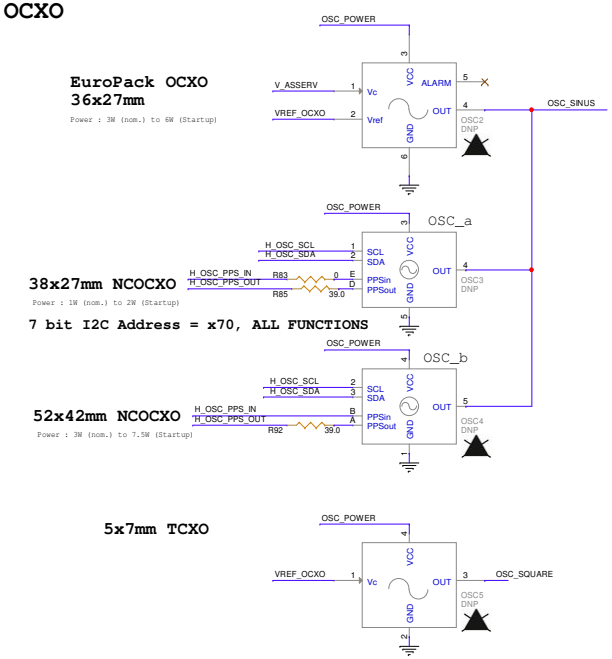
SQUARE TO Sine CONVERTER



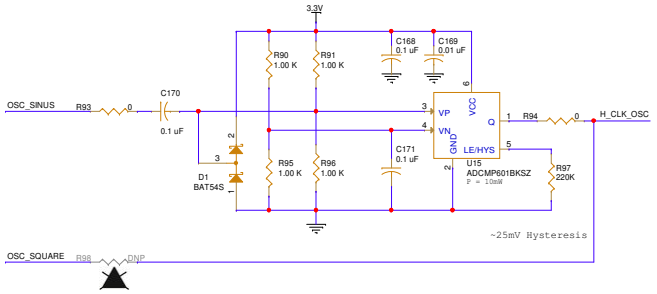
HARMONIC FILTER



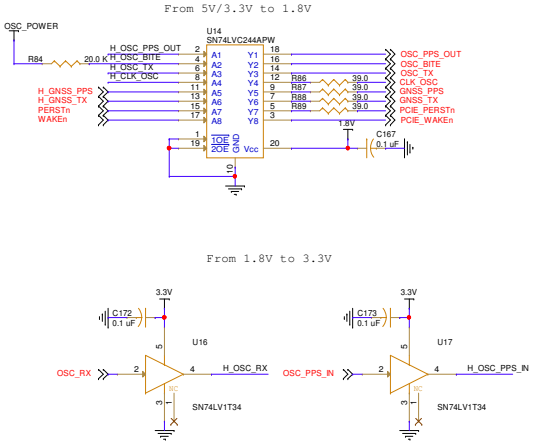
OCXO



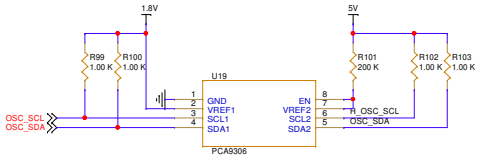
SINUS TO SQUARE CONVERTER



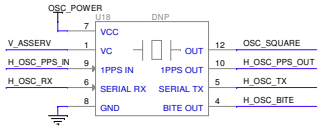
LOGIC VOLTAGE-LEVEL TRANSLATOR



I2C VOLTAGE-LEVEL TRANSLATOR



Chip Scale Atomic Clock



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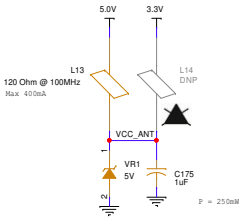
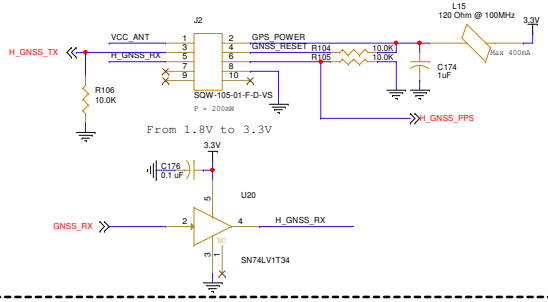
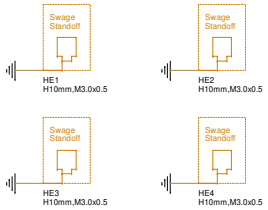
ANTENNA POWER SUPPLY



GNSS RECEIVER



GNSS STANDOFF



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Title: GNSS		
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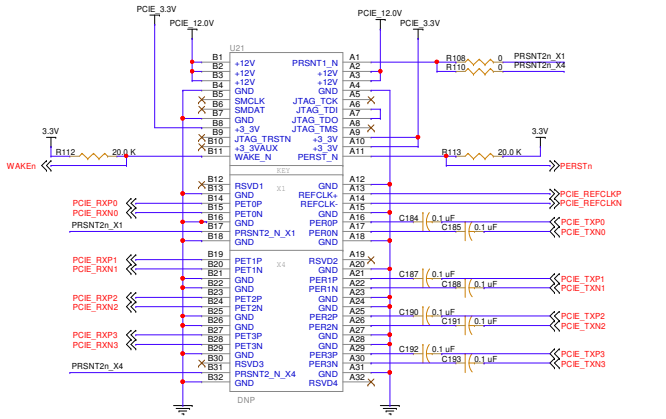
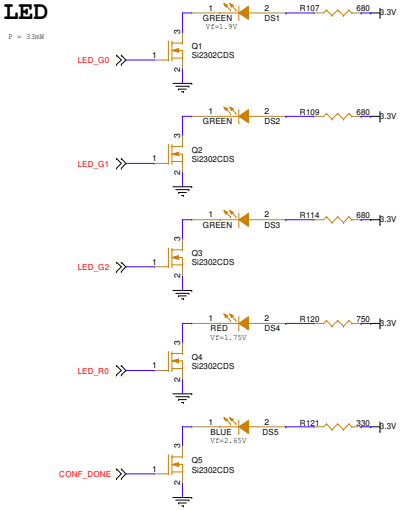
PCIe CONNECTOR

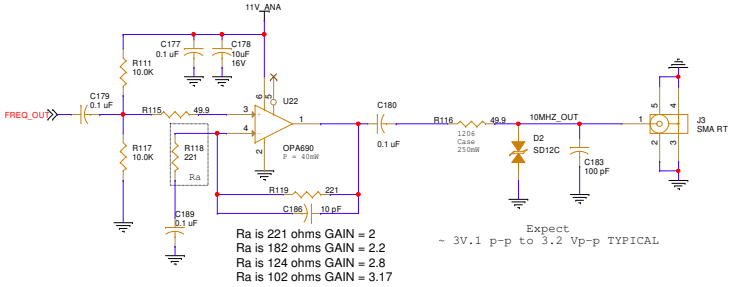


LED

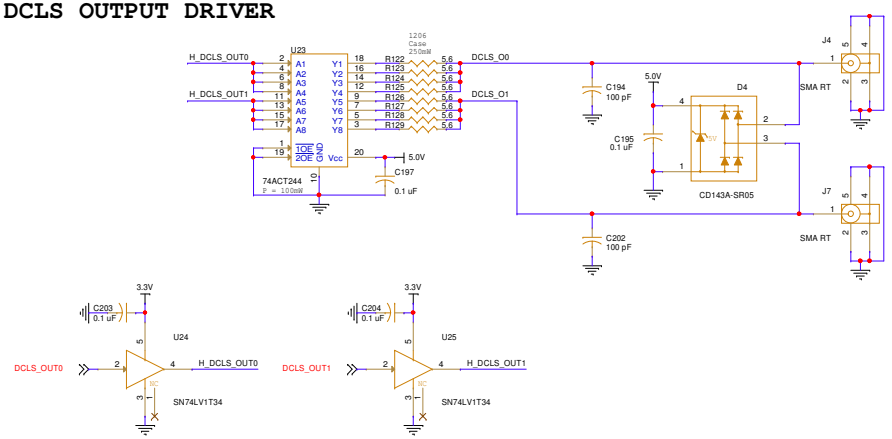


FREQ OUTPUT DRIVER

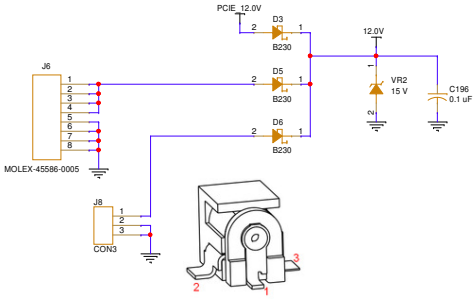
10MHZ OSC Buffer Driver



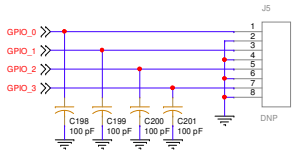
DCLS OUTPUT DRIVER



POWER CONNECTOR



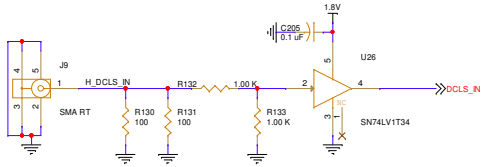
GPIO



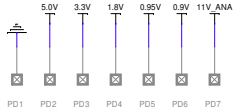
BRACKET HOLES / MOUNT HOLES

DCLS INPUT DRIVER

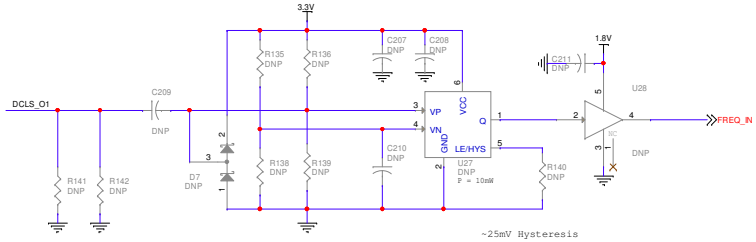
From 5V input to 1.8V



TEST POINT



OPTIONNAL FREQUENCY INPUT



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