REVISION	DATE	HISTORY	AUTHOR
0.4.0	12/20/2024	Initial Design	Henry Tang

7100-00003
USTx Board V0.4.1

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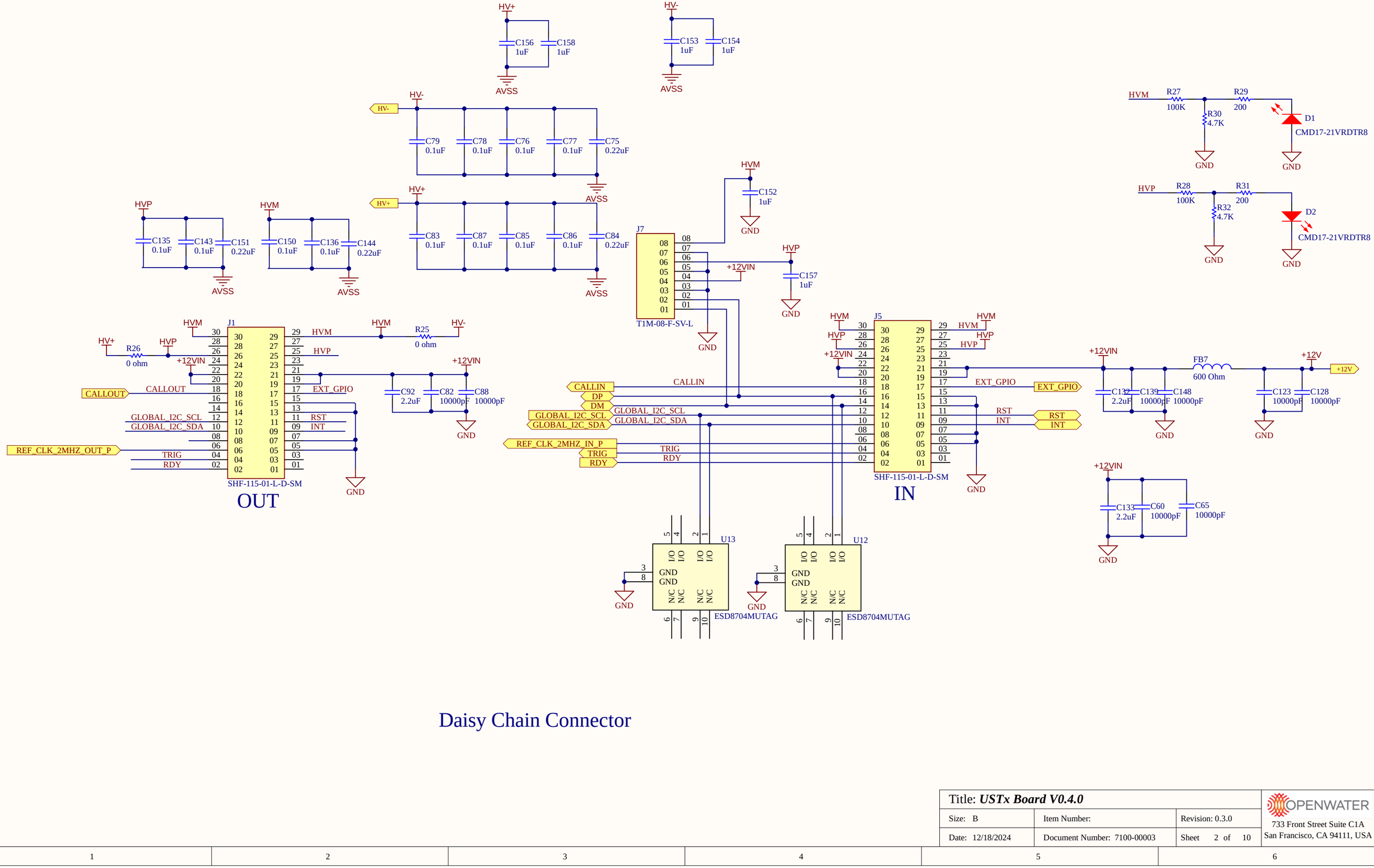

Daisy Chain Connector

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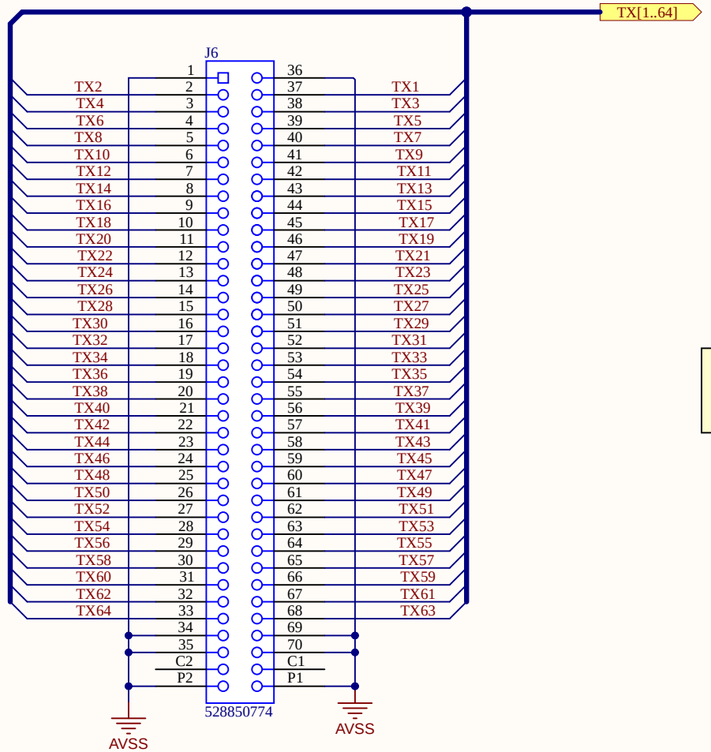
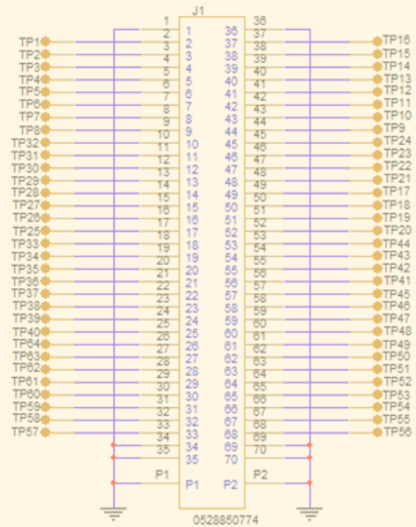


Arrays Pin Map



Tranducer Connector

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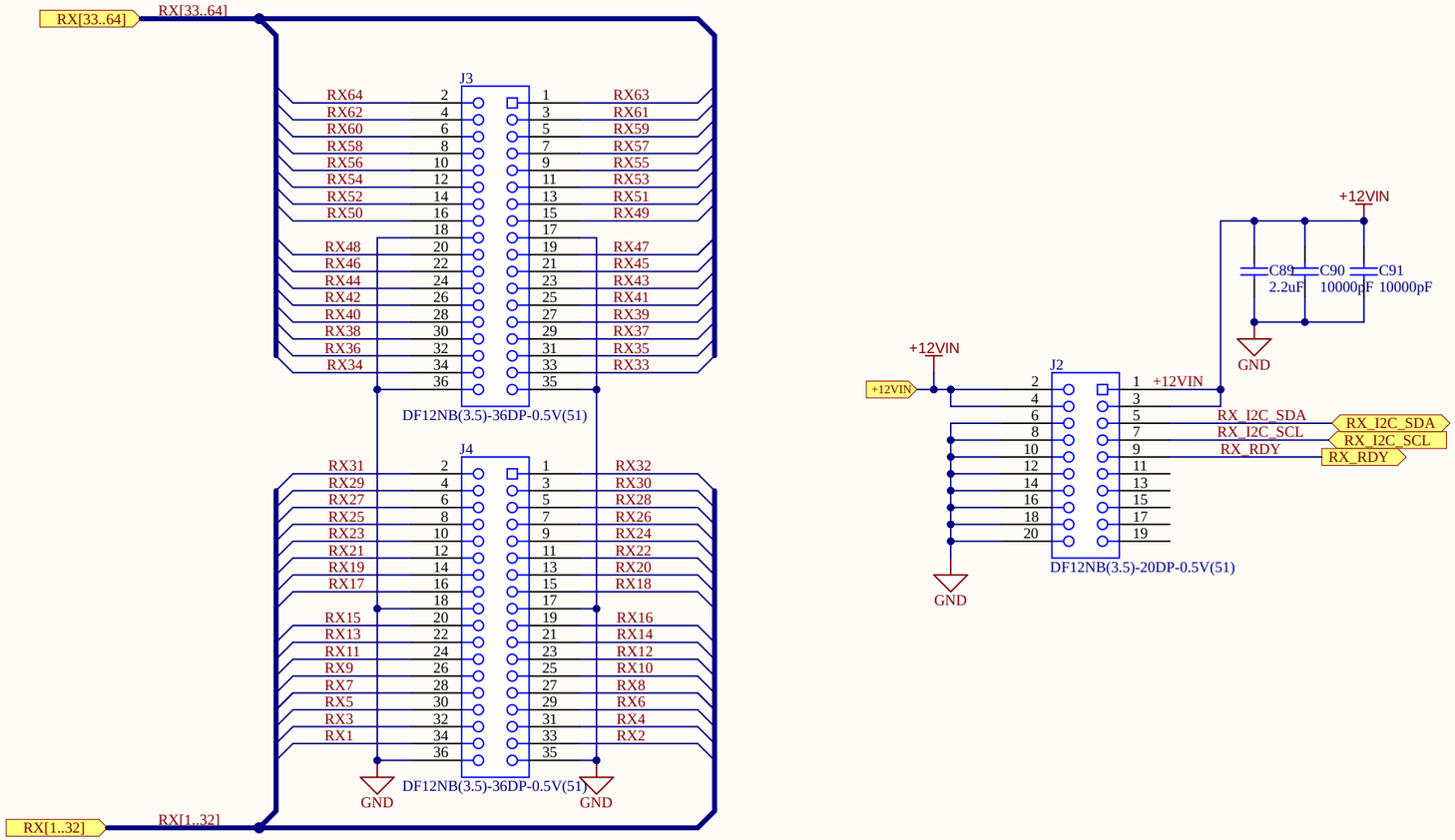

RX Board Connector

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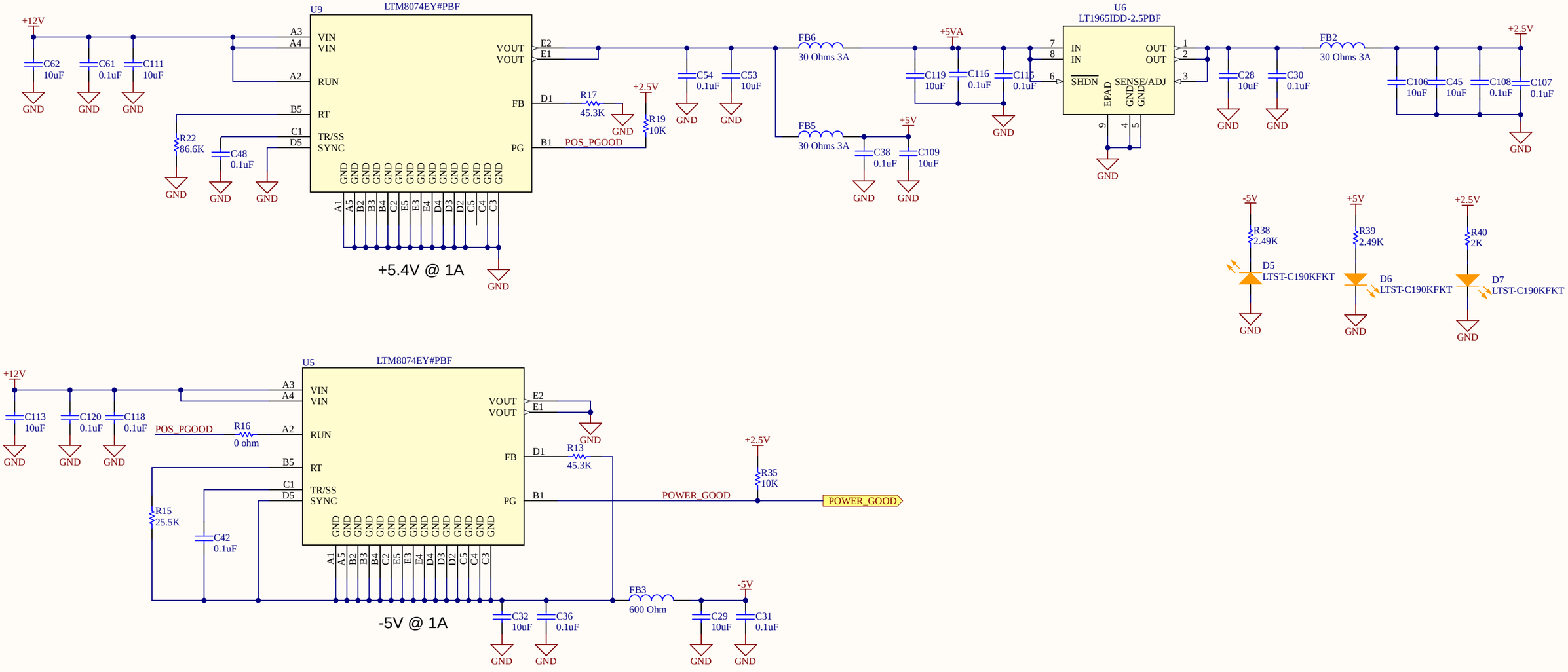

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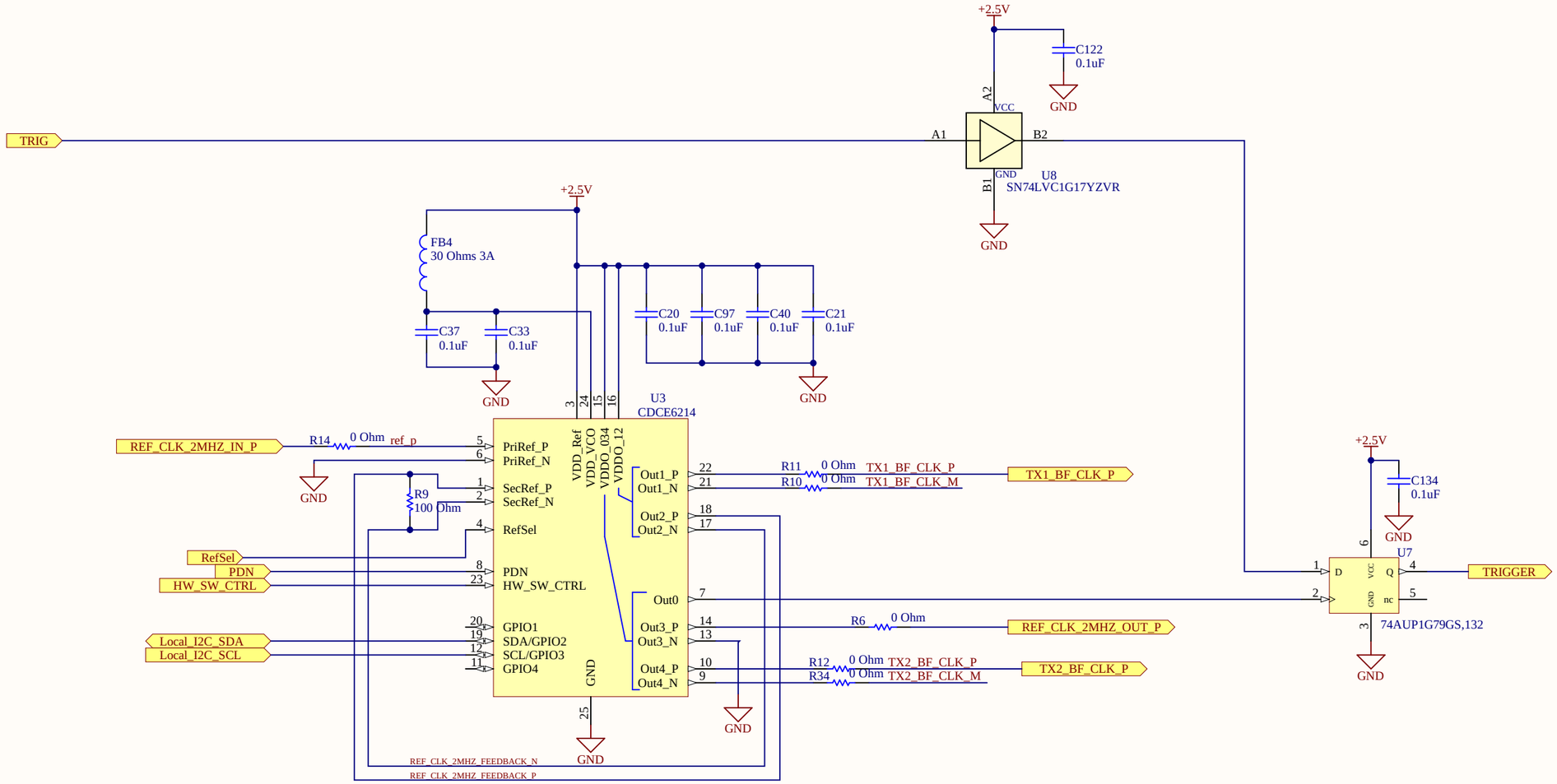

Configure CDCE6214 for External Zero-Delay PLL

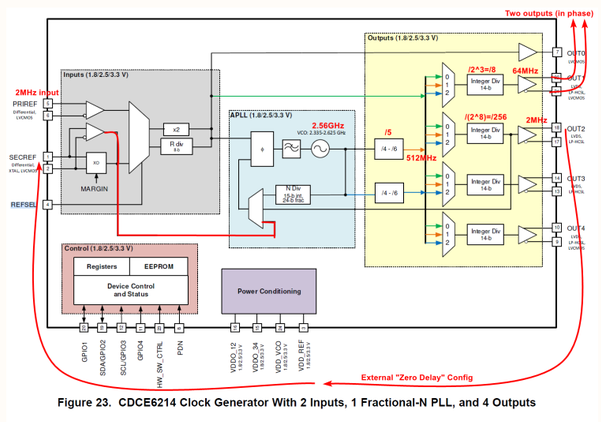

Figure 23. CDCE6214 Clock Generator With 2 Inputs, 1 Fractional-N PLL, and 4 Outputs

TIMING REQUIREMENT FOR ON-CHIP BEAM FORMING MODE				
t_{WUP} (4)	Minimum time to apply TR_EN* signal before applying TR_BF_SYNC signal		8	µs
W_{SYNC} (4)	Sync pulse width	10	20	BF_CLK clock cycles
t_{SU_SYNC} (4)	Setup time related to TR_BF_SYNC (Differential) relative to the rising edge of the BF_CLK (Differential) clock		2.14	ns
	Setup time related to TR_BF_SYNC (Single-ended) relative to the rising edge of the BF_CLK (Single-ended) clock		1.27	ns
t_{H_SYNC} (4)	Hold time related to TR_BF_SYNC (Differential) relative to the rising edge of the BF_CLK (Differential) clock		1.16	ns
	Hold time related to TR_BF_SYNC (Single-ended) relative to the rising edge of the BF_CLK (Single-ended) clock		1.57	ns
t_{PROP_INT}	From a 50% transition point of BF_CLK rising edge on which TR_BF_SYNC is latched to 1-V deviation at output; see Figure 44		15	ns

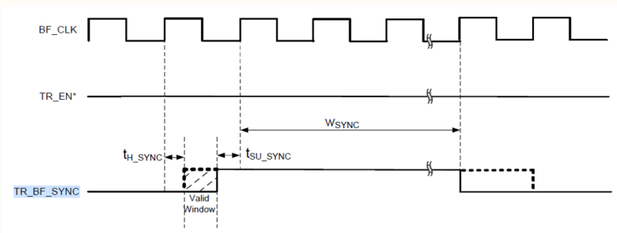

Figure 42. TR_BF_SYNC Timing Requirement for Static Trigger mode

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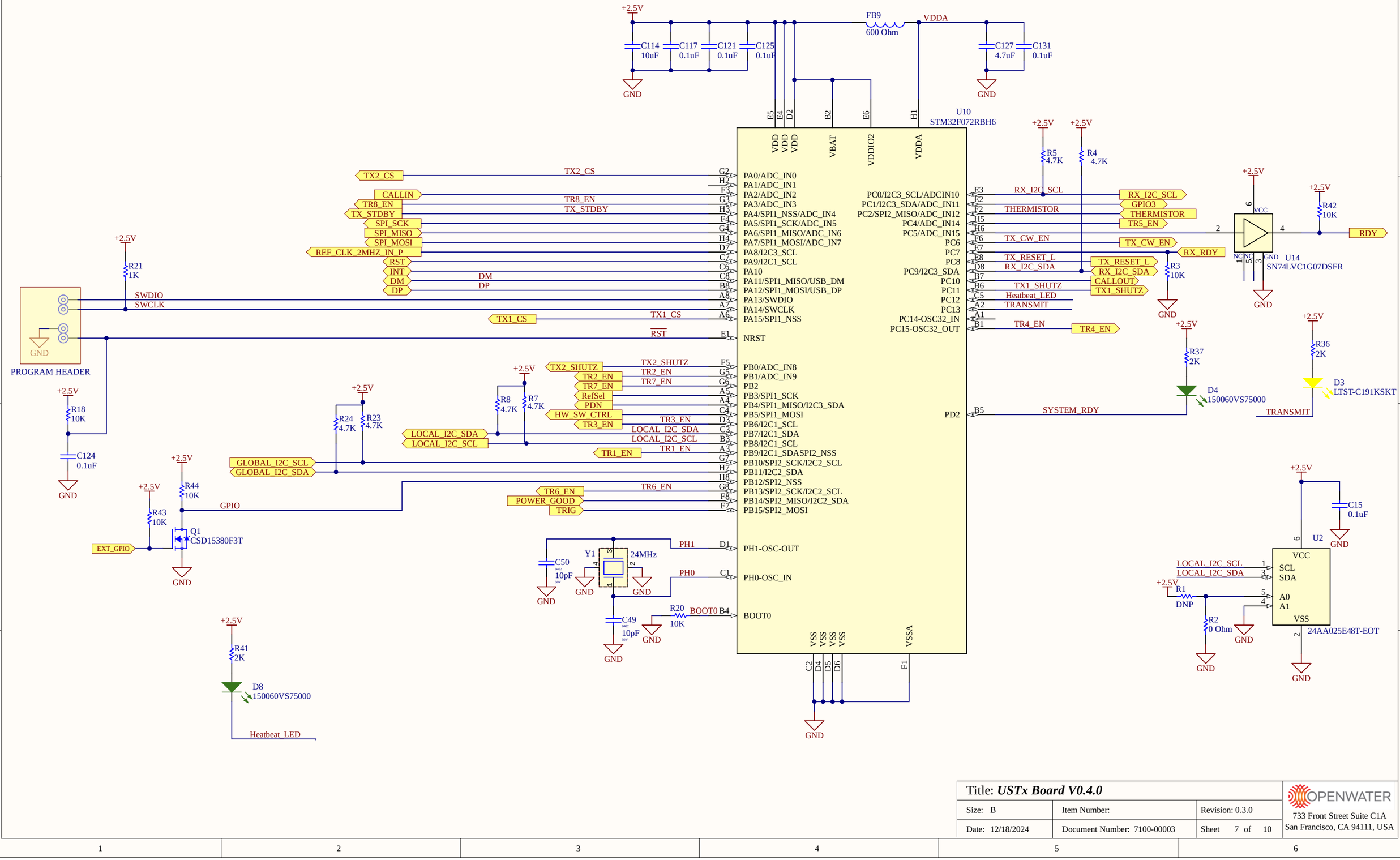

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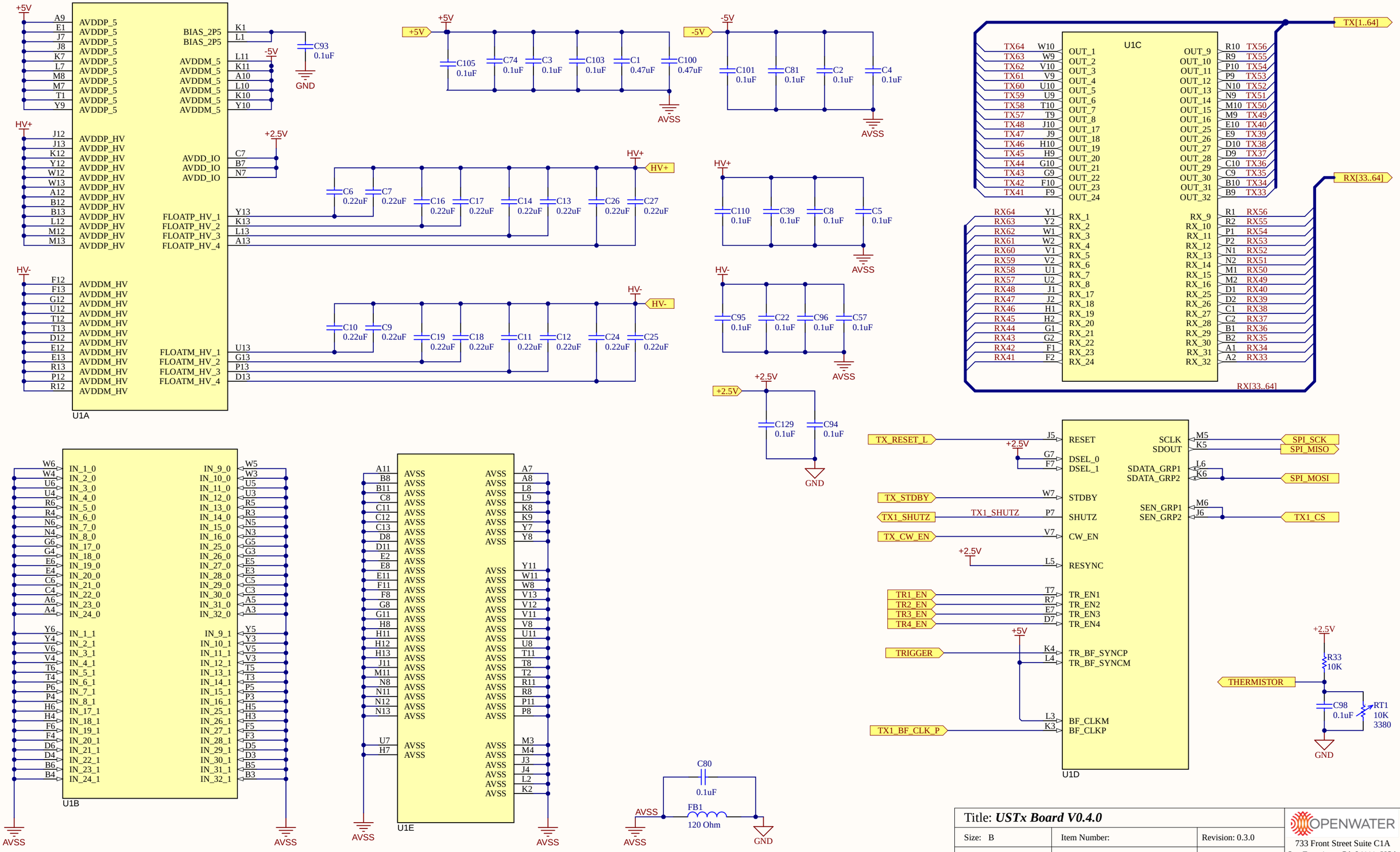

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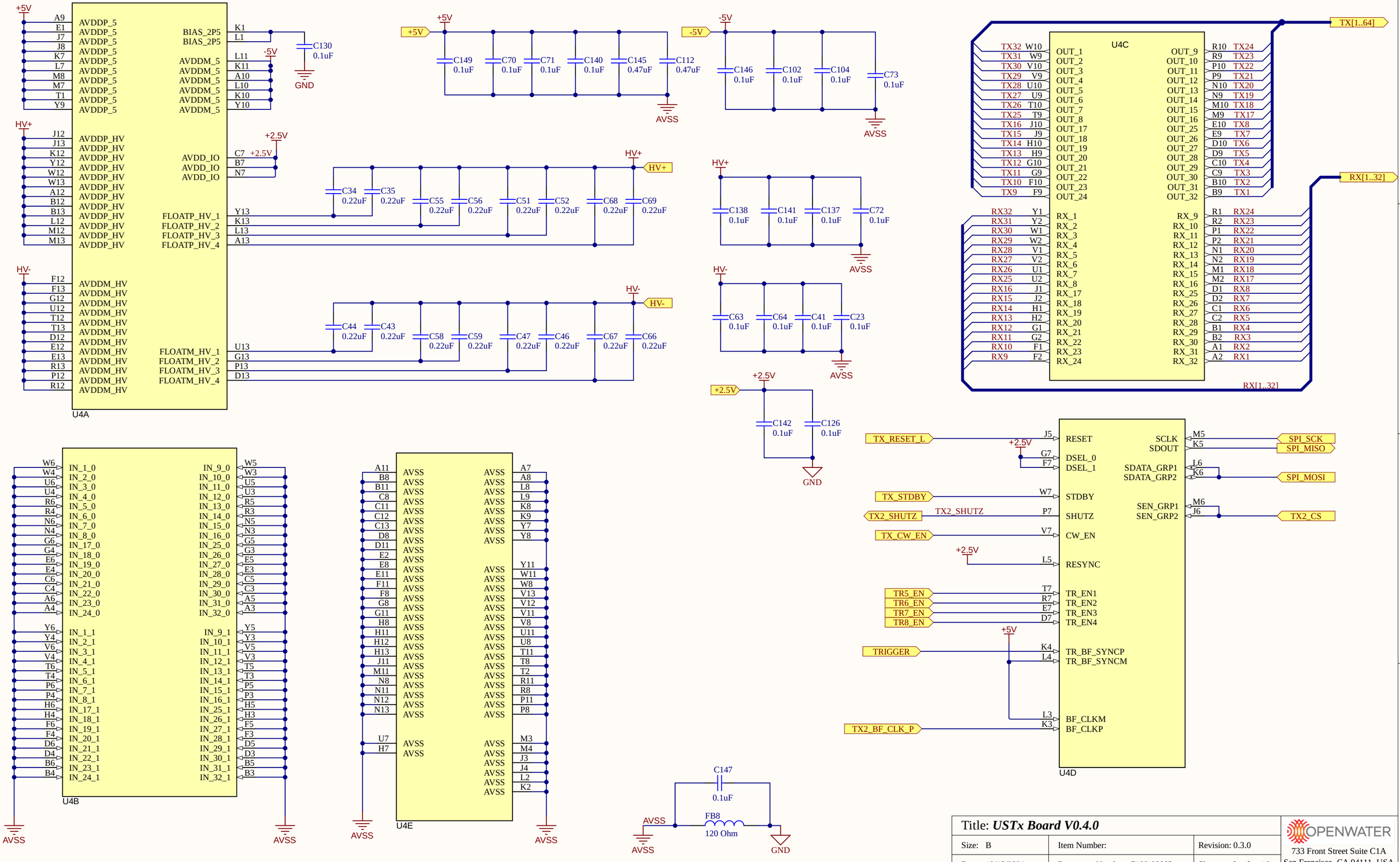

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H1 1
NY PMS 440 0025 PH

H2 1
NY PMS 440 0025 PH

H3 1
NY PMS 440 0025 PH

H4 1
NY PMS 440 0025 PH

H5
1902C

H6
1902C

H7
1902C

H8
1902C

H9
SJ-5303 (CLEAR)

H10
SJ-5303 (CLEAR)

H11
SJ-5303 (CLEAR)

H12
SJ-5303 (CLEAR)

FID1 FID2 FID3 FID4 FID5 FID6

PCB Number: 7100-00003
PCB Rev: 0

PCB
LOGO
Texas Instruments

CE Mark

PCB
LOGO
FCC disclaimer

PCB
LOGO
WEEE logo

LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20 "

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only

Variant/Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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