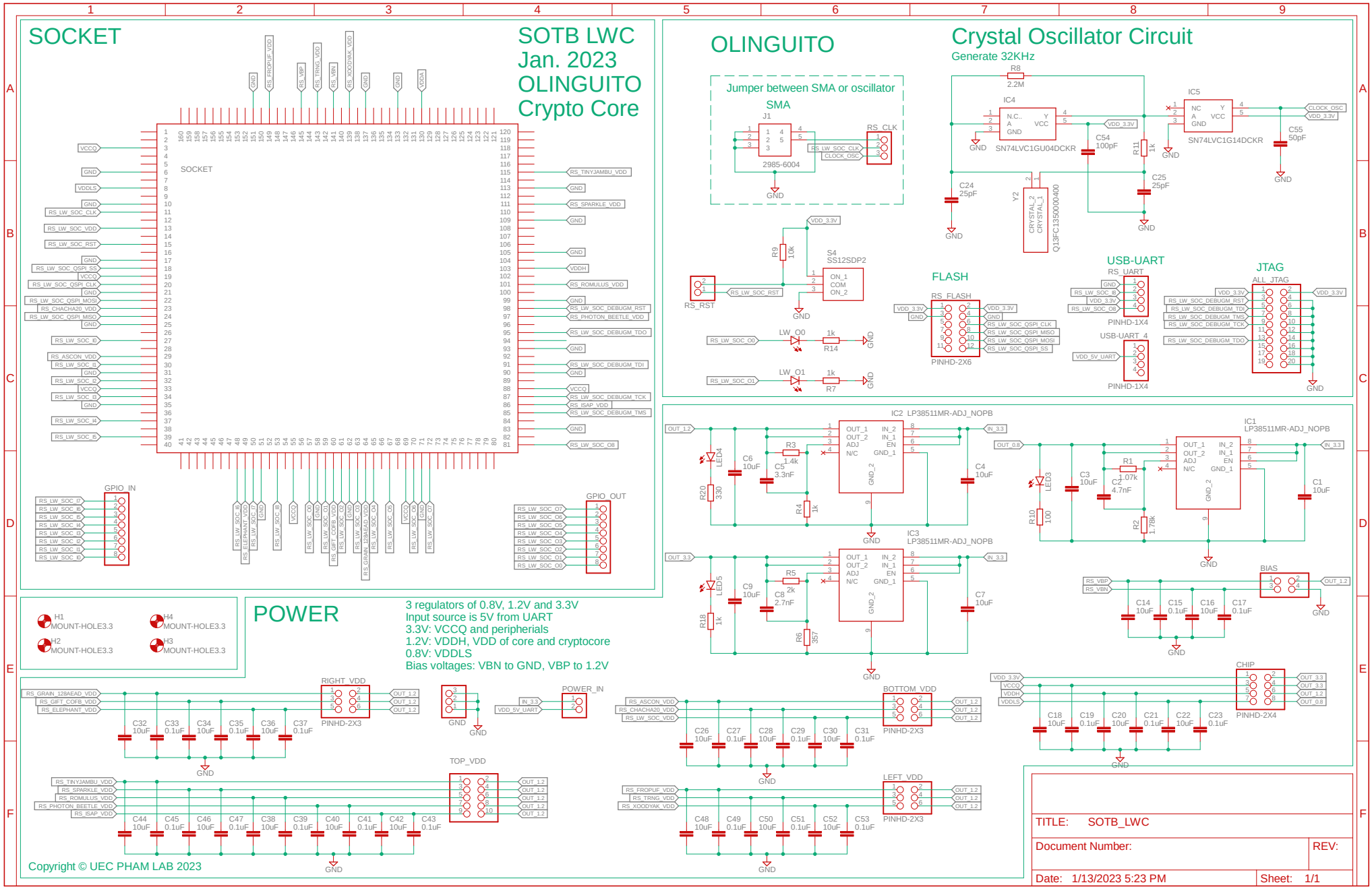
SOCKET
SOTB LWC
Jan. 2023
OLINGUITO
Crypto Core
OLINGUITO
Jumper between SMA or oscillator
SMA
J1
2985-6004
RS_CLK
RS_LW_SOC_CLK
CLOCK_OSC
Crystal Oscillator Circuit
Generate 32KHz
R8
2.2M
IC4
SN74LVC1GU04DCKR
IC5
SN74LVC1G14DCKR
C54
100pF
R11
1k
C55
50pF
C24
25pF
C25
25pF
Y2
Q13FC13500000400
CRYSTAL_2
CRYSTAL_1
VDD_3.3V
CLOCK_OSC
GND
R9
10k
S4
SS12SDP2
RS_RST
RS_LW_SOC_RST
LW_O0
LW_O1
R14
R7
FLASH
RS_FLASH
PINHD-2X6
USB-UART
RS_UART
PINHD-1X4
USB-UART_4
JTAG
ALL_JTAG
IC2 LP38511MR-ADJ_NOPB
IC3 LP38511MR-ADJ_NOPB
IC1 LP38511MR-ADJ_NOPB
OUT_1.2
OUT_0.8
OUT_3.3
IN_3.3
LED4
LED3
LED5
R20
330
R10
100
R18
1k
C6
10uF
C5
3.3nF
R3
1.4k
R4
1k
C4
10uF
C3
10uF
C2
4.7nF
R1
1.07k
R2
1.78k
C1
10uF
C9
10uF
C8
2.7nF
R5
2k
R6
357
C7
10uF
BIAS
RS_VBP
RS_VBN
C14
10uF
C15
0.1uF
C16
10uF
C17
0.1uF
GPIO_IN
GPIO_OUT
H1
MOUNT-HOLE3.3
H2
MOUNT-HOLE3.3
H4
MOUNT-HOLE3.3
H3
MOUNT-HOLE3.3
POWER
3 regulators of 0.8V, 1.2V and 3.3V
Input source is 5V from UART
3.3V: VCCQ and peripherals
1.2V: VDDH, VDD of core and cryptocore
0.8V: VDDLS
Bias voltages: VBN to GND, VBP to 1.2V
RIGHT_VDD
PINHD-2X3
POWER_IN
BOTTOM_VDD
CHIP
PINHD-2X4
TOP_VDD
LEFT_VDD
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