1. Description

1.1. Project

Project Name	SC-1086_V202
Board Name	No information
Generated with:	STM8CubeMX 1.5.0
Date	10/08/2022

1.2. MCU

|	
MCU Series	STM8L
MCU Line	STM8L Value Line
MCU name	STM8L051F3Px
MCU Package	TSSOP20
MCU Pin number	20

2. Pinout Configuration

RED_LED — PC5
GREEN_LED — PC6
SWIM — PA0
NRS..
USART_TX_RX — PA2
Key in_pull_up — PA3
VSS/..
VDD/..
GPIO_Output — PD0
MOTOR_PWM — PB0

PC4 — KNOB_SWITCH in_adc
PC1 — OLED_SCL
PC0 — OLED_SDA
PB7 — FLOW_METER in_pull_up EXTI_Trigge
PB6 — OVER_ZERO in_pull_up EXTI_Trigger_
PB5 — VENT
PB4 — PUMP
PB3 — HEAT
PB2 — PUMP_SELECT in_pull_up
PB1 — NTC in_adc

STM8L051F3Px
TSSOP20
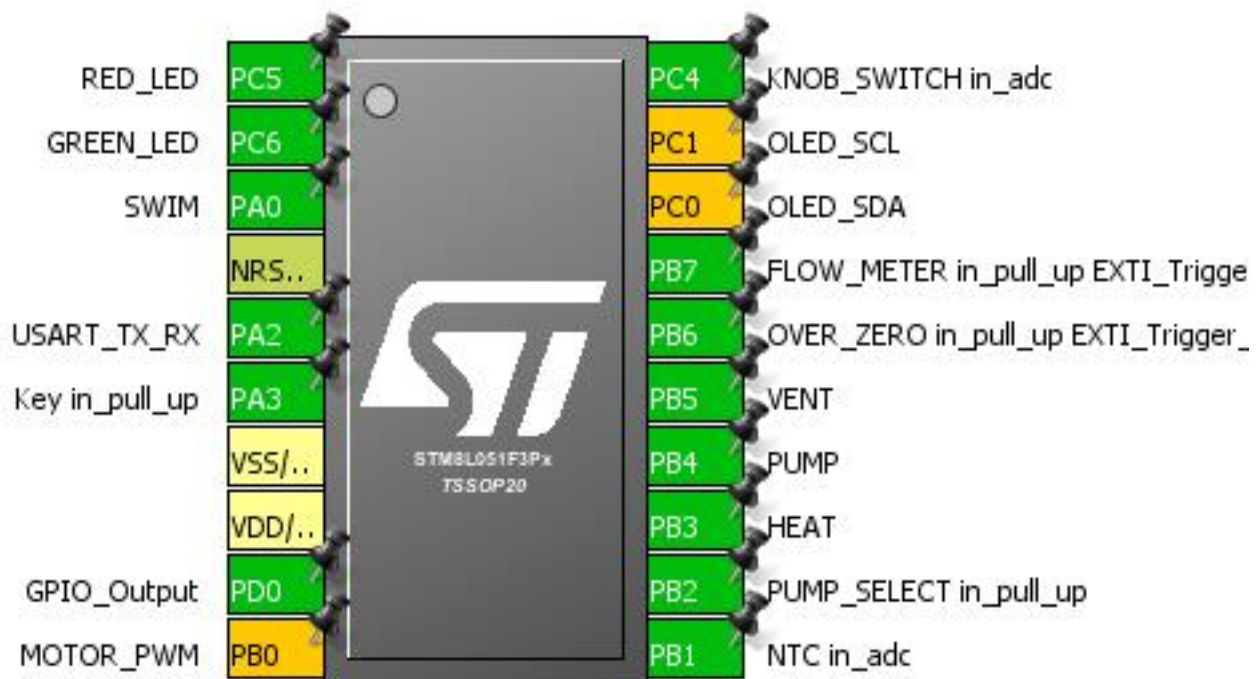
3. Pins Configuration

Pin Number TSSOP20	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	PC5 *	I/O	GPIO_Output	RED_LED
2	PC6 *	I/O	GPIO_Output	GREEN_LED
3	PA0	I/O	SYS_SWIM	SWIM
4	NRST/PA1	Reset		
5	PA2	I/O	USART_TX	USART_TX_RX
6	PA3 *	I/O	GPIO_Input	Key in_pull_up
7	VSS/VREF-/VSSA	Power		
8	VDD/VDDA/VREF+	Power		
9	PD0 *	I/O	GPIO_Output	
10	PB0 **	I/O	TIM2_CH1	MOTOR_PWM
11	PB1	I/O	ADC1_IN17	NTC in_adc
12	PB2 *	I/O	GPIO_Input	PUMP_SELECT in_pull_up
13	PB3 *	I/O	GPIO_Input	HEAT
14	PB4 *	I/O	GPIO_Output	PUMP
15	PB5 *	I/O	GPIO_Output	VENT
16	PB6 *	I/O	GPIO_Input	OVER_ZERO in_pull_up EXTI_Trigger_Rising_Falling
17	PB7 *	I/O	GPIO_Input	FLOW_METER in_pull_up EXTI_Trigger_Rising
18	PC0 **	I/O	I2C_SDA	OLED_SDA
19	PC1 **	I/O	I2C_SCL	OLED_SCL
20	PC4	I/O	ADC1_IN4	KNOB_SWITCH in_adc

 * The pin is affected with an I/O function

** The pin is affected with a peripheral function but no peripheral mode is activated

4. Clock Tree Configuration
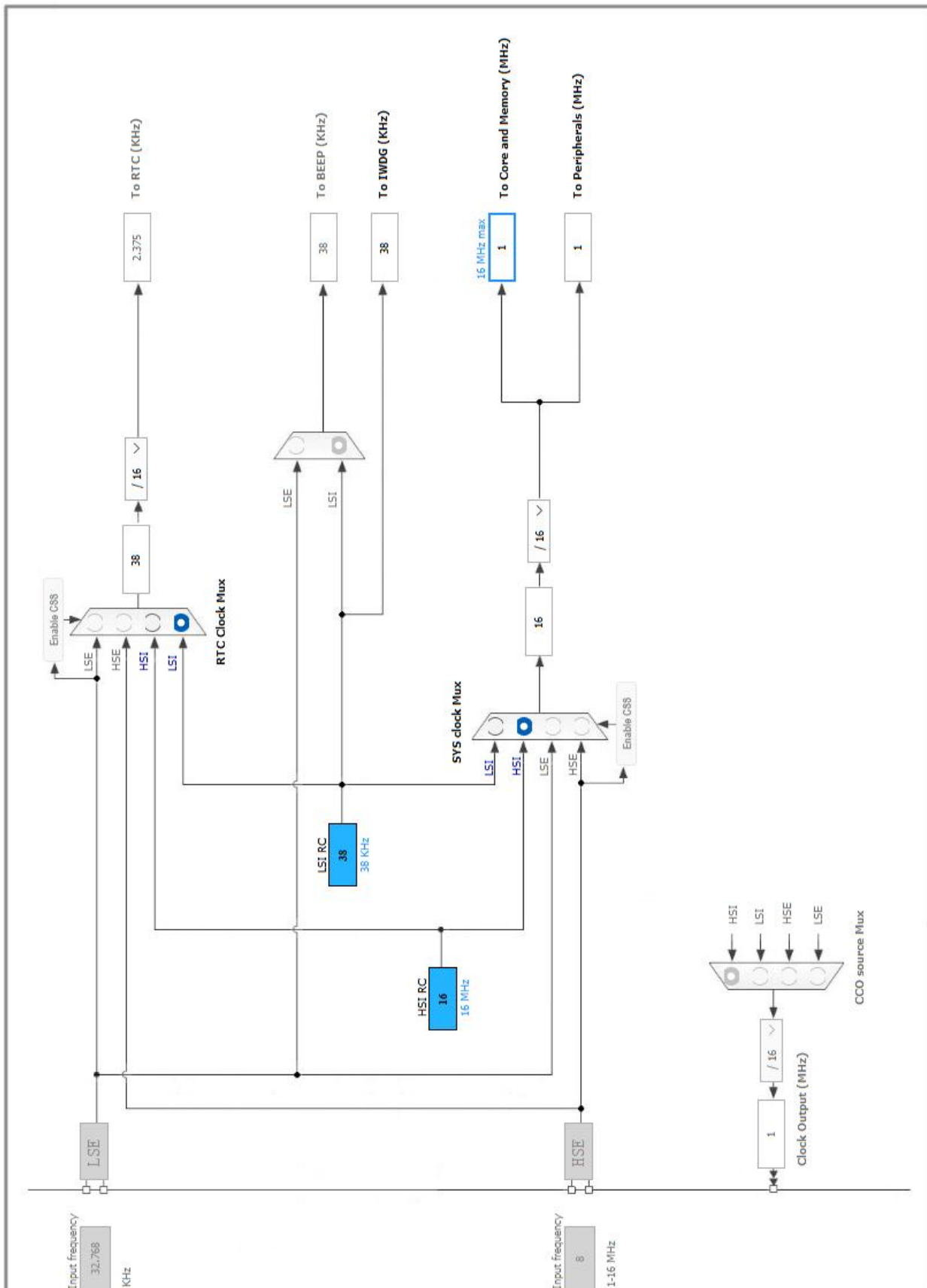
5. Power Consumption Calculator report

5.1. Microcontroller Selection

Series	STM8L
Line	STM8L Value Line
MCU	STM8L051F3Px
Datasheet	023465_Rev2

5.2. Parameter Selection

Temperature	25
Vdd	3.0