

## 1. Description

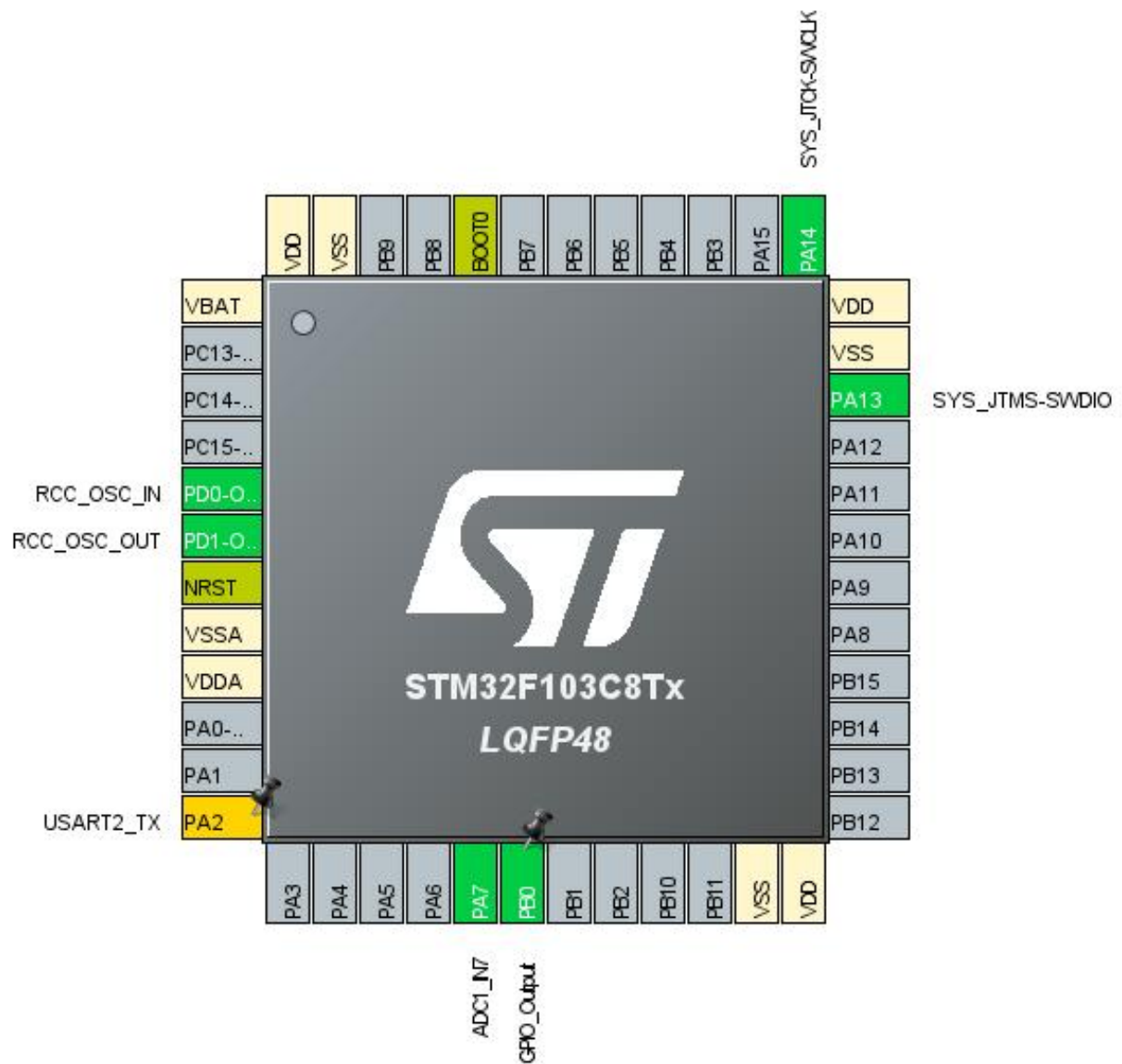
### 1.1. Project

Project Name	Fiat
Board Name	custom
Generated with:	STM32CubeMX 5.4.0
Date	10/29/2019

### 1.2. MCU

MCU Series	STM32F1
MCU Line	STM32F103
MCU name	STM32F103C8Tx
MCU Package	LQFP48
MCU Pin number	48

## 2. Pinout Configuration



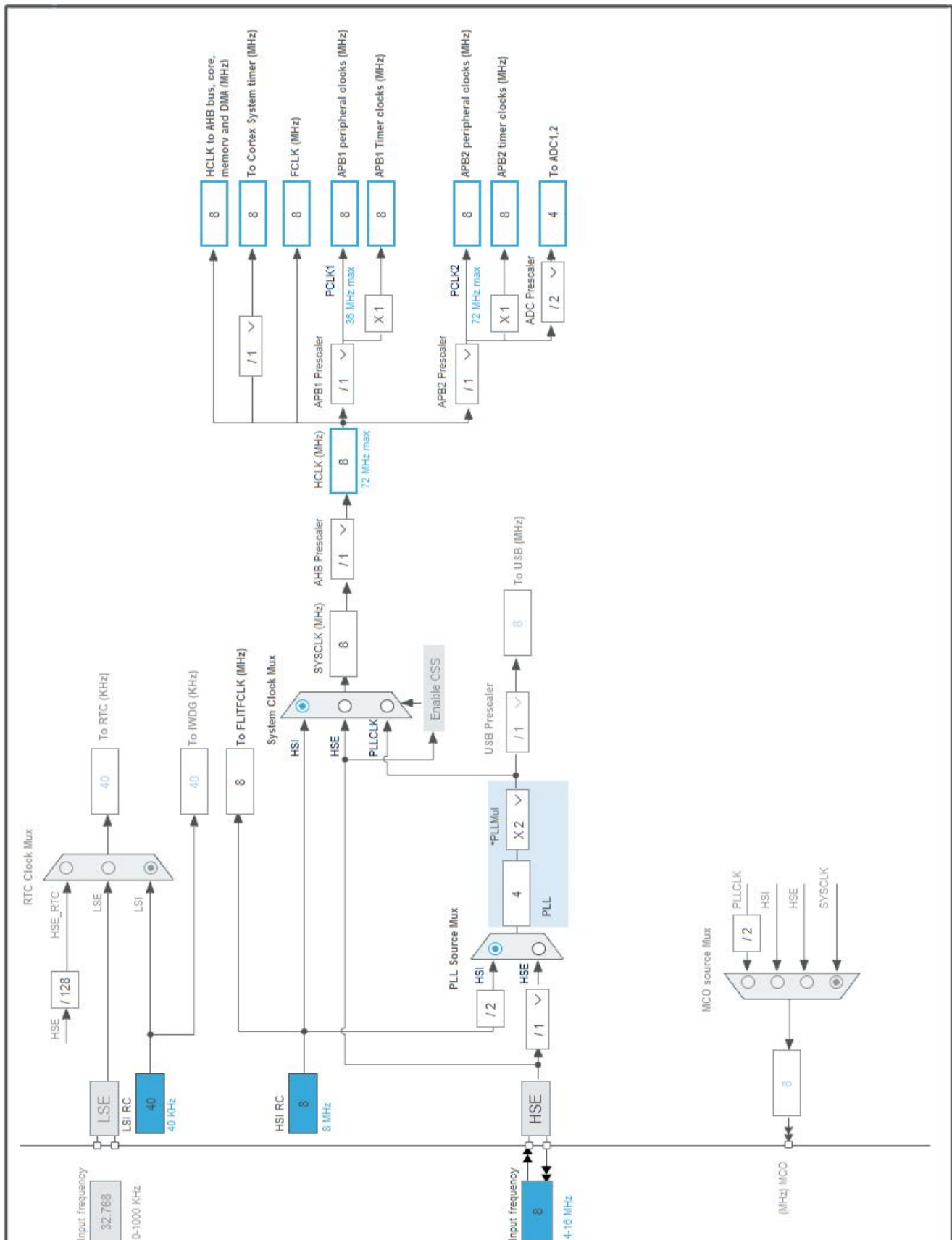
### 3. Pins Configuration

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
5	PD0-OSC_IN	I/O	RCC_OSC_IN	
6	PD1-OSC_OUT	I/O	RCC_OSC_OUT	
7	NRST	Reset		
8	VSSA	Power		
9	VDDA	Power		
12	PA2 *	I/O	USART2_TX	
17	PA7	I/O	ADC1_IN7	
18	PB0 **	I/O	GPIO_Output	
23	VSS	Power		
24	VDD	Power		
34	PA13	I/O	SYS_JTMS-SWDIO	
35	VSS	Power		
36	VDD	Power		
37	PA14	I/O	SYS_JTCK-SWCLK	
44	BOOT0	Boot		
47	VSS	Power		
48	VDD	Power		

\*\* 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. Software Project

### 5.1. Project Settings

Name	Value
Project Name	Fiat
Project Folder	C:\Users\Admincliente\STM32CubeIDE\workspace_1.1.0\Fiat
Toolchain / IDE	STM32CubeIDE
Firmware Package Name and Version	STM32Cube FW_F1 V1.8.0

### 5.2. Code Generation Settings

Name	Value
STM32Cube MCU packages and embedded software	Copy only the necessary library files
Generate peripheral initialization as a pair of '.c/.h' files	No
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No

## 6. Power Consumption Calculator report

### 6.1. Microcontroller Selection

Series	STM32F1
Line	STM32F103
MCU	STM32F103C8Tx
Datasheet	13587_Rev17

### 6.2. Parameter Selection

Temperature	25
Vdd	3.3

## 7. IPs and Middleware Configuration

### 7.1. ADC1

**mode:** IN7

**mode:** Temperature Sensor Channel

#### 7.1.1. Parameter Settings:

##### ADCs\_Common\_Settings:

Mode Independent mode

##### ADC\_Settings:

Data Alignment Right alignment

Scan Conversion Mode Enabled

Continuous Conversion Mode **Enabled \***

Discontinuous Conversion Mode Disabled

##### ADC\_Regular\_ConversionMode:

Enable Regular Conversions Enable

Number Of Conversion **2 \***

External Trigger Conversion Source Regular Conversion launched by software

Rank 1

Channel Channel 7

Sampling Time 1.5 Cycles

Rank **2 \***

Channel **Channel Temperature Sensor \***

Sampling Time 1.5 Cycles

##### ADC\_Injected\_ConversionMode:

Enable Injected Conversions Disable

##### WatchDog:

Enable Analog WatchDog Mode false

### 7.2. GPIO

### 7.3. RCC

**High Speed Clock (HSE):** Crystal/Ceramic Resonator

#### 7.3.1. Parameter Settings:

##### System Parameters:

VDD voltage (V) 3.3

Prefetch Buffer	Enabled
Flash Latency(WS)	0 WS (1 CPU cycle)

**RCC Parameters:**

HSI Calibration Value	16
HSE Startup Timeout Value (ms)	100
LSE Startup Timeout Value (ms)	5000

## 7.4. SYS

**Debug: Serial Wire**

**Timebase Source: SysTick**

\* User modified value



## 8. System Configuration

### 8.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
ADC1	PA7	ADC1_IN7	Analog mode	n/a	n/a	
RCC	PD0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PD1-OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
SYS	PA13	SYS_JTMS-SWDIO	n/a	n/a	n/a	
	PA14	SYS_JTCK-SWCLK	n/a	n/a	n/a	
Single Mapped Signals	PA2	USART2_TX	Alternate Function Push Pull	n/a	High *	
GPIO	PB0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	

### 8.2. DMA configuration

nothing configured in DMA service

### 8.3. NVIC configuration

Interrupt Table	Enable	Preenmption Priority	SubPriority
Non maskable interrupt	true	0	0
Hard fault interrupt	true	0	0
Memory management fault	true	0	0
Prefetch fault, memory access fault	true	0	0
Undefined instruction or illegal state	true	0	0
System service call via SWI instruction	true	0	0
Debug monitor	true	0	0
Pendable request for system service	true	0	0
System tick timer	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
ADC1 and ADC2 global interrupts	unused		

\* User modified value

## ***9. Software Pack Report***