1. Description

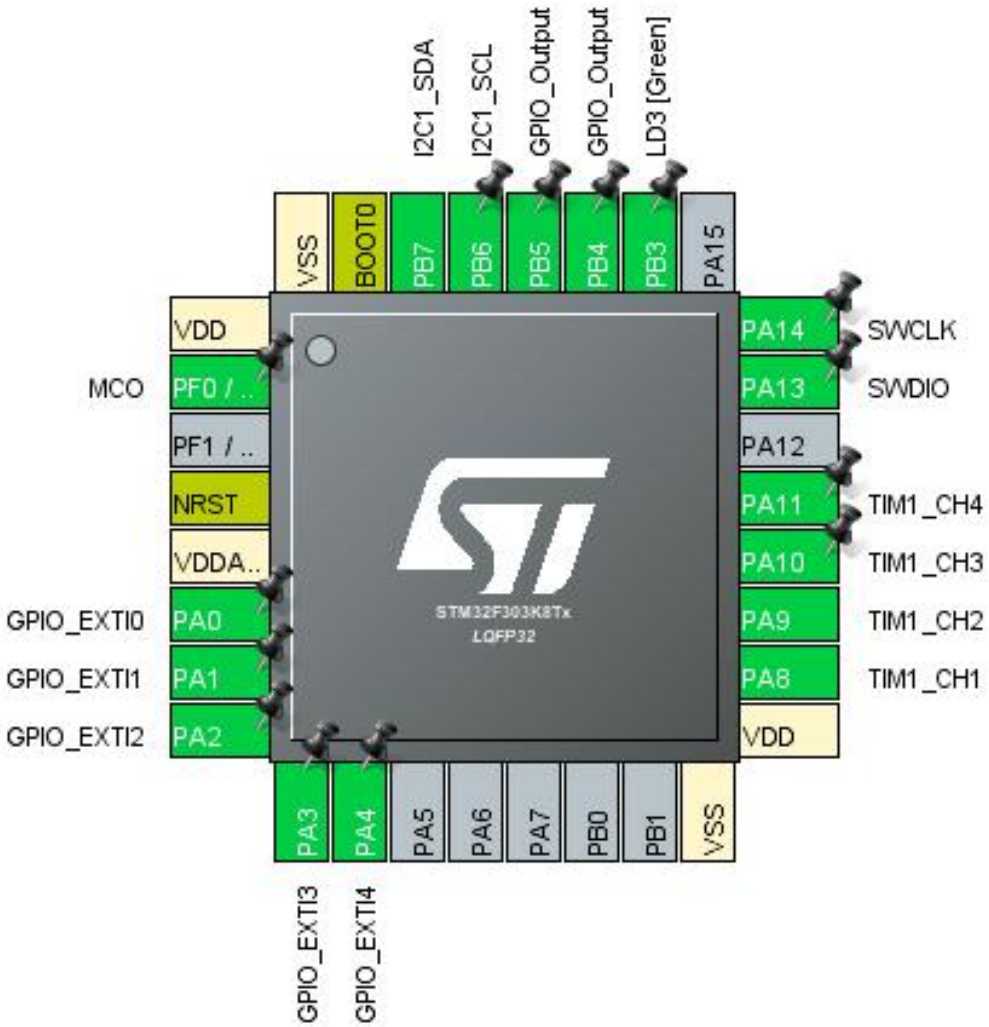
1.1. Project

Project Name	testNEW
Board Name	NUCLEO-F303K8
Generated with:	STM32CubeMX 5.2.0
Date	11/03/2019

1.2. MCU

MCU Series	STM32F3
MCU Line	STM32F303
MCU name	STM32F303K8Tx
MCU Package	LQFP32
MCU Pin number	32

2. Pinout Configuration

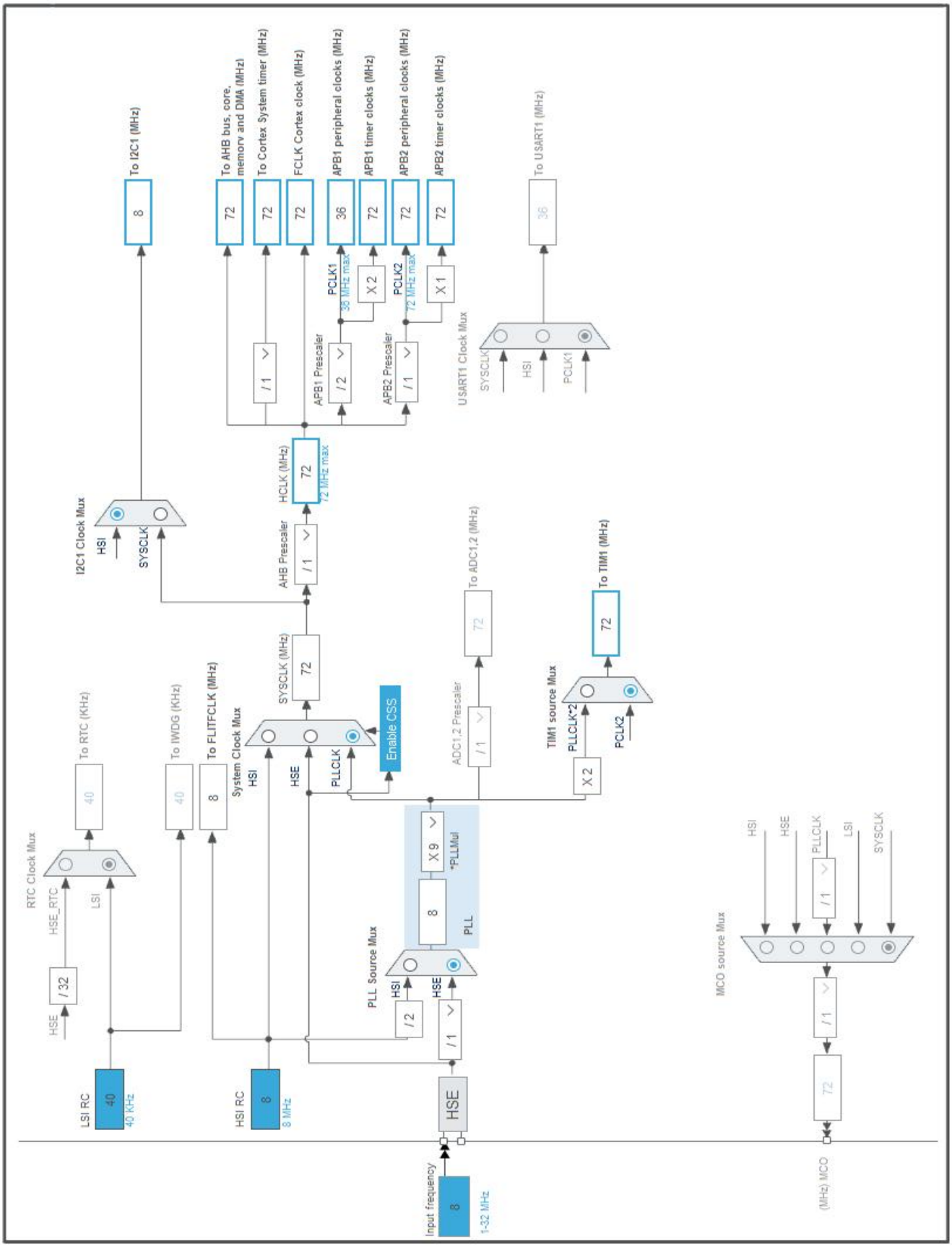


3. Pins Configuration

Pin Number LQFP32	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VDD	Power		
2	PF0 / OSC_IN	I/O	RCC_OSC_IN	MCO
4	NRST	Reset		
5	VDDA/VREF+	Power		
6	PA0	I/O	GPIO_EXTI0	
7	PA1	I/O	GPIO_EXTI1	
8	PA2	I/O	GPIO_EXTI2	
9	PA3	I/O	GPIO_EXTI3	
10	PA4	I/O	GPIO_EXTI4	
16	VSS	Power		
17	VDD	Power		
18	PA8	I/O	TIM1_CH1	
19	PA9	I/O	TIM1_CH2	
20	PA10	I/O	TIM1_CH3	
21	PA11	I/O	TIM1_CH4	
23	PA13	I/O	SYS_JTMS-SWDIO	SWDIO
24	PA14	I/O	SYS_JTCK-SWCLK	SWCLK
26	PB3 *	I/O	GPIO_Output	LD3 [Green]
27	PB4 *	I/O	GPIO_Output	
28	PB5 *	I/O	GPIO_Output	
29	PB6	I/O	I2C1_SCL	
30	PB7	I/O	I2C1_SDA	
31	BOOT0	Boot		
32	VSS	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. Software Project

5.1. Project Settings

Name	Value
Project Name	testNEW
Project Folder	C:\Users\edoardo\Desktop\testNEW
Toolchain / IDE	SW4STM32
Firmware Package Name and Version	STM32Cube FW_F3 V1.10.0

5.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	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	STM32F3
Line	STM32F303
MCU	STM32F303K8Tx
Datasheet	025083_Rev5

6.2. Parameter Selection

Temperature	25
Vdd	3.6

7. IPs and Middleware Configuration

7.1. I2C1

I2C: I2C

7.1.1. Parameter Settings:

Timing configuration:

I2C Speed Mode	**Fast Mode ***
I2C Speed Frequency (KHz)	400
Rise Time (ns)	0
Fall Time (ns)	0
Coefficient of Digital Filter	0
Analog Filter	Enabled
Timing	**0x0000020B ***

Slave Features:

Clock No Stretch Mode	Disabled
General Call Address Detection	Disabled
Primary Address Length selection	7-bit
Dual Address Acknowledged	Disabled
Primary slave address	0

7.2. RCC

High Speed Clock (HSE): BYPASS Clock Source

7.2.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Prefetch Buffer	Enabled
Flash Latency(WS)	2 WS (3 CPU cycle)

RCC Parameters:

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

7.3. SYS

Debug: Serial Wire
Timebase Source: SysTick

7.4. TIM1

Clock Source : Internal Clock
Channel1: PWM Generation CH1
Channel2: PWM Generation CH2
Channel3: PWM Generation CH3
Channel4: PWM Generation CH4

7.4.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	**7 ***
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	**2041 ***
Internal Clock Division (CKD)	No Division
Repetition Counter (RCR - 16 bits value)	0
auto-reload preload	Disable

Trigger Output (TRGO) Parameters:

Master/Slave Mode (MSM bit)	Disable (Trigger input effect not delayed)
Trigger Event Selection TRGO	Reset (UG bit from TIMx_EGR)
Trigger Event Selection TRGO2	Reset (UG bit from TIMx_EGR)

Break And Dead Time management - BRK Configuration:

BRK State	Disable
BRK Polarity	High
BRK Filter (4 bits value)	0

Break And Dead Time management - BRK2 Configuration:

BRK2 State	Disable
BRK2 Polarity	High
BRK2 Filter (4 bits value)	0

Break And Dead Time management - Output Configuration:

Automatic Output State	Disable
Off State Selection for Run Mode (OSSR)	Disable
Off State Selection for Idle Mode (OSSI)	Disable
Lock Configuration	Off

Clear Input:

Clear Input Source	Disable

PWM Generation Channel 1:

Mode	PWM mode 1

Pulse (16 bits value)	0
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

PWM Generation Channel 2:

Mode	PWM mode 1
Pulse (16 bits value)	0
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

PWM Generation Channel 3:

Mode	PWM mode 1
Pulse (16 bits value)	0
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

PWM Generation Channel 4:

Mode	PWM mode 1
Pulse (16 bits value)	0
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

*** User modified value**

8. System Configuration

8.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
I2C1	PB6	I2C1_SCL	Alternate Function Open Drain	Pull up	**High ***	
	PB7	I2C1_SDA	Alternate Function Open Drain	Pull up	**High ***	
RCC	PF0 / OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	MCO
SYS	PA13	SYS_JTMS-SWDIO	n/a	n/a	n/a	SWDIO
	PA14	SYS_JTCK-SWCLK	n/a	n/a	n/a	SWCLK
TIM1	PA8	TIM1_CH1	Alternate Function Push Pull	No pull up pull down	Low	
	PA9	TIM1_CH2	Alternate Function Push Pull	No pull up pull down	Low	
	PA10	TIM1_CH3	Alternate Function Push Pull	No pull up pull down	Low	
	PA11	TIM1_CH4	Alternate Function Push Pull	No pull up pull down	Low	
GPIO	PA0	GPIO_EXTI0	External Interrupt Mode with Rising edge trigger detection	No pull up pull down	n/a	
	PA1	GPIO_EXTI1	**External Interrupt Mode with Rising/Falling edge**	No pull up pull down	n/a	
	PA2	GPIO_EXTI2	**External Interrupt Mode with Rising/Falling edge**	No pull up pull down	n/a	
	PA3	GPIO_EXTI3	**External Interrupt Mode with Rising/Falling edge**	No pull up pull down	n/a	
	PA4	GPIO_EXTI4	**External Interrupt Mode with Rising/Falling edge**	No pull up pull down	n/a	
	PB3	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD3 [Green]
	PB4	GPIO_Output	Output Push Pull	No pull up pull down	Low	
	PB5	GPIO_Output	Output Push Pull	No pull up 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
Pre-fetch 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
EXTI line 0 interrupt	true	0	0
EXTI line 1 interrupt	true	0	0
EXTI line 2 and touch sense controller	true	0	0
EXTI line 3 interrupt	true	0	0
EXTI line 4 interrupt	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
TIM1 break and TIM15 interrupts	unused		
TIM1 update and TIM16 interrupts	unused		
TIM1 trigger and commutation and TIM17 interrupts	unused		
TIM1 capture compare interrupt	unused		
I2C1 event global interrupt / I2C1 wake-up interrupt through EXT line 23	unused		
I2C1 error interrupt	unused		
Floating point unit interrupt	unused		

*** User modified value**

9. Software Pack Report