1. Description

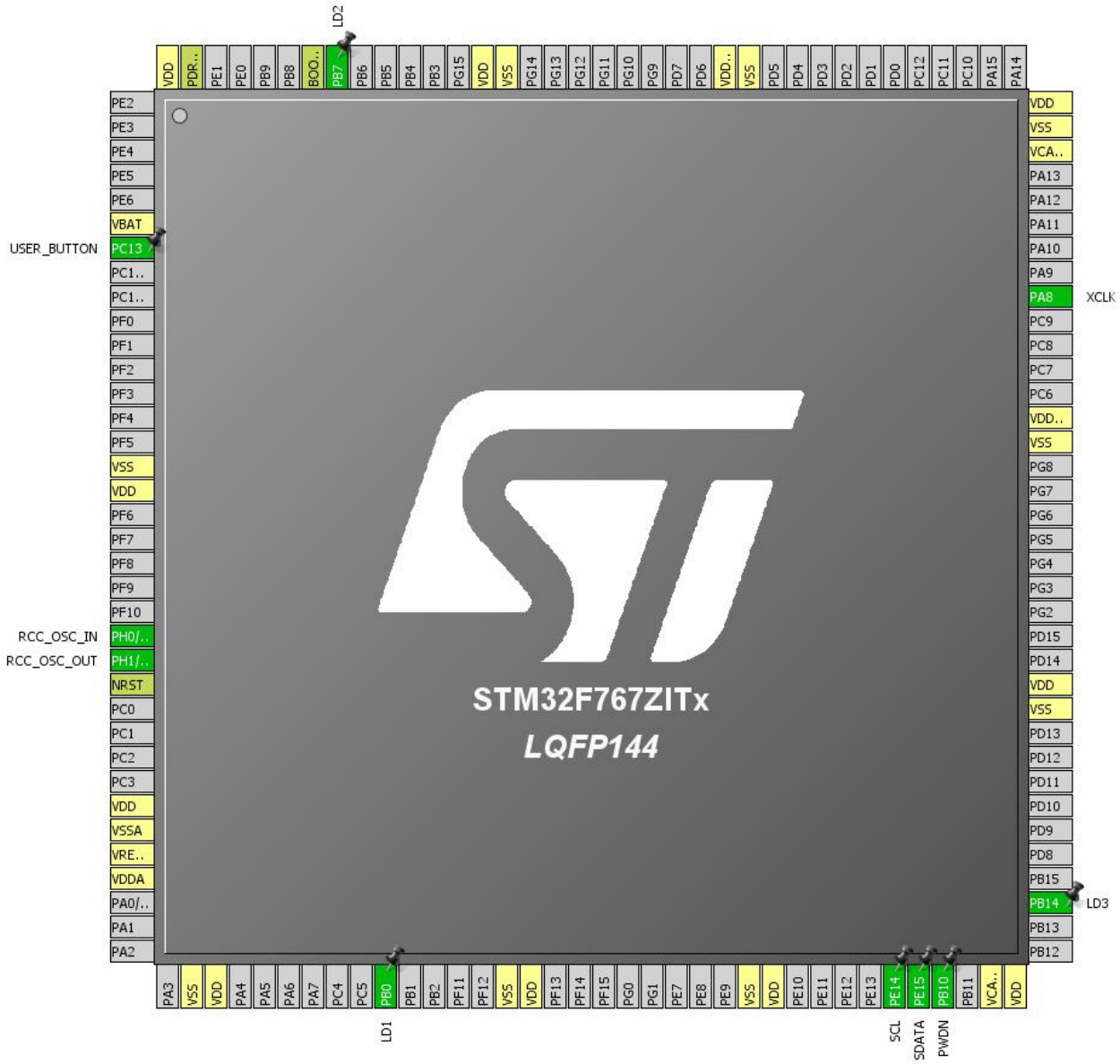
1.1. Project

Project Name	Ej_GPIO_LEDS_INT
Board Name	NUCLEO-F767ZI
Generated with:	STM32CubeMX 4.25.0
Date	05/30/2018

1.2. MCU

MCU Series	STM32F7
MCU Line	STM32F7x7
MCU name	STM32F767ZITx
MCU Package	LQFP144
MCU Pin number	144

2. Pinout Configuration



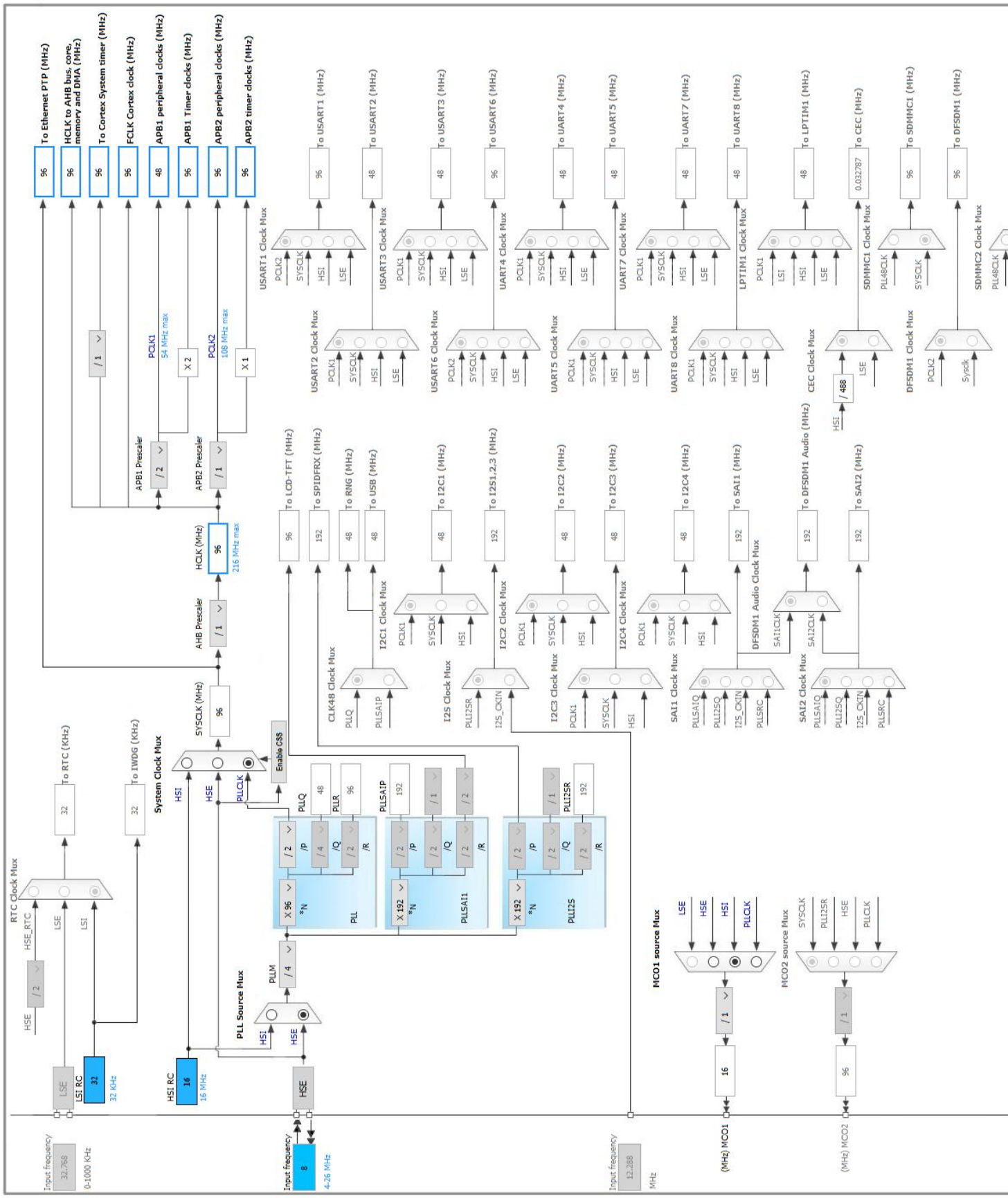
3. Pins Configuration

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
7	PC13	I/O	GPIO_EXTI13	USER_BUTTON
16	VSS	Power		
17	VDD	Power		
23	PH0/OSC_IN	I/O	RCC_OSC_IN	
24	PH1/OSC_OUT	I/O	RCC_OSC_OUT	
25	NRST	Reset		
30	VDD	Power		
31	VSSA	Power		
32	VREF+	Power		
33	VDDA	Power		
38	VSS	Power		
39	VDD	Power		
46	PB0 *	I/O	GPIO_Output	LD1
51	VSS	Power		
52	VDD	Power		
61	VSS	Power		
62	VDD	Power		
67	PE14 *	I/O	GPIO_Output	SCL
68	PE15 *	I/O	GPIO_Output	SDATA
69	PB10 *	I/O	GPIO_Output	PWDN
71	VCAP_1	Power		
72	VDD	Power		
75	PB14 *	I/O	GPIO_Output	LD3
83	VSS	Power		
84	VDD	Power		
94	VSS	Power		
95	VDDUSB	Power		
100	PA8	I/O	RCC_MCO_1	XCLK
106	VCAP_2	Power		
107	VSS	Power		
108	VDD	Power		
120	VSS	Power		
121	VDDSDMMC	Power		
130	VSS	Power		
131	VDD	Power		

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
137	PB7 *	I/O	GPIO_Output	LD2
138	BOOT0	Boot		
143	PDR_ON	Reset		
144	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator
mode: Master Clock Output 1

5.1.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Flash Latency(WS)	3 WS (4 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
TIM Prescaler Selection	Disabled
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

Power Parameters:

Power Over Drive	Enabled
Power Regulatror Voltage Scale	Power Regulator Voltage Scale 3

5.2. SYS

Timebase Source: SysTick

5.3. TIM2

Clock Source : Internal Clock

5.3.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	**96 ***
Counter Mode	Up
Counter Period (AutoReload Register - 32 bits value)	**0xffffffff ***
Internal Clock Division (CKD)	No Division
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)

5.4. TIM3

Clock Source : Internal Clock

5.4.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	**9600 ***
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	**10000 ***
Internal Clock Division (CKD)	No Division
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)

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
RCC	PH0/OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PH1/OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
	PA8	RCC_MCO_1	Alternate Function Push Pull	No pull-up and no pull-down	Low	XCLK
GPIO	PC13	GPIO_EXTI13	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	USER_BUTTON
	PB0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LD1
	PE14	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	SCL
	PE15	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	SDATA
	PB10	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	PWDN
	PB14	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LD3
	PB7	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LD2

6.2. DMA configuration

nothing configured in DMA service

6.3. 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
RCC global interrupt	true	0	0
TIM3 global interrupt	true	0	0
EXTI line[15:10] interrupts	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
TIM2 global interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F7
Line	STM32F7x7
MCU	STM32F767ZITx
Datasheet	029041_Rev4

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	Ej_GPIO_LEDS_INT
Project Folder	D:\Camara Inalambrica\Ej_Nucleo_1\Ej_GPIO_LEDS_INT
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_F7 V1.11.0

8.2. 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

9. Software Pack Report