

## 1. Description

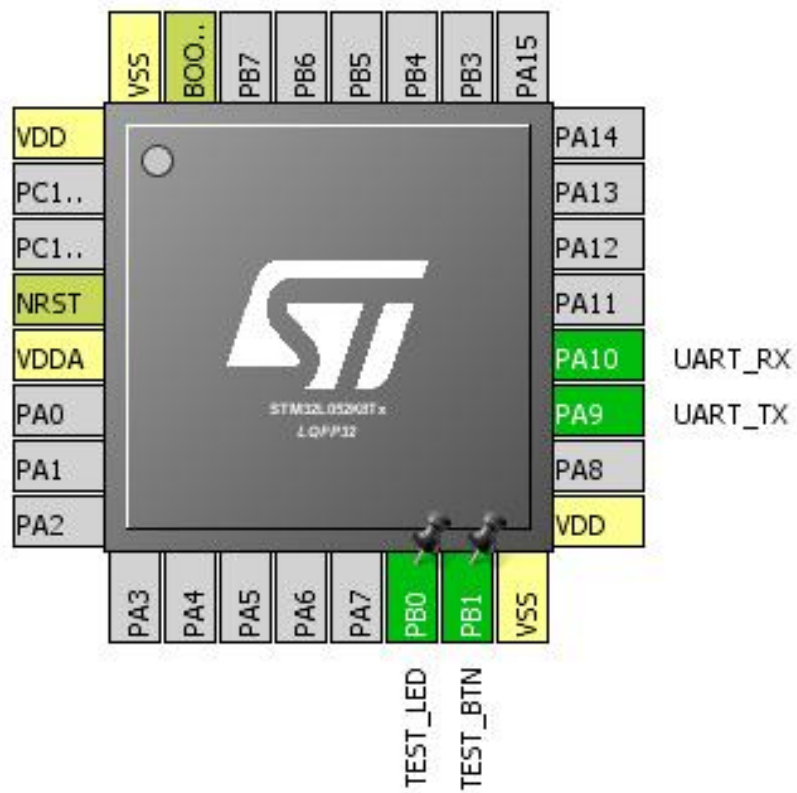
### 1.1. Project

Project Name	pushbtn
Board Name	pushbtn
Generated with:	STM32CubeMX 4.23.0
Date	01/14/2018

### 1.2. MCU

MCU Series	STM32L0
MCU Line	STM32L0x2
MCU name	STM32L052K8Tx
MCU Package	LQFP32
MCU Pin number	32

## 2. Pinout Configuration

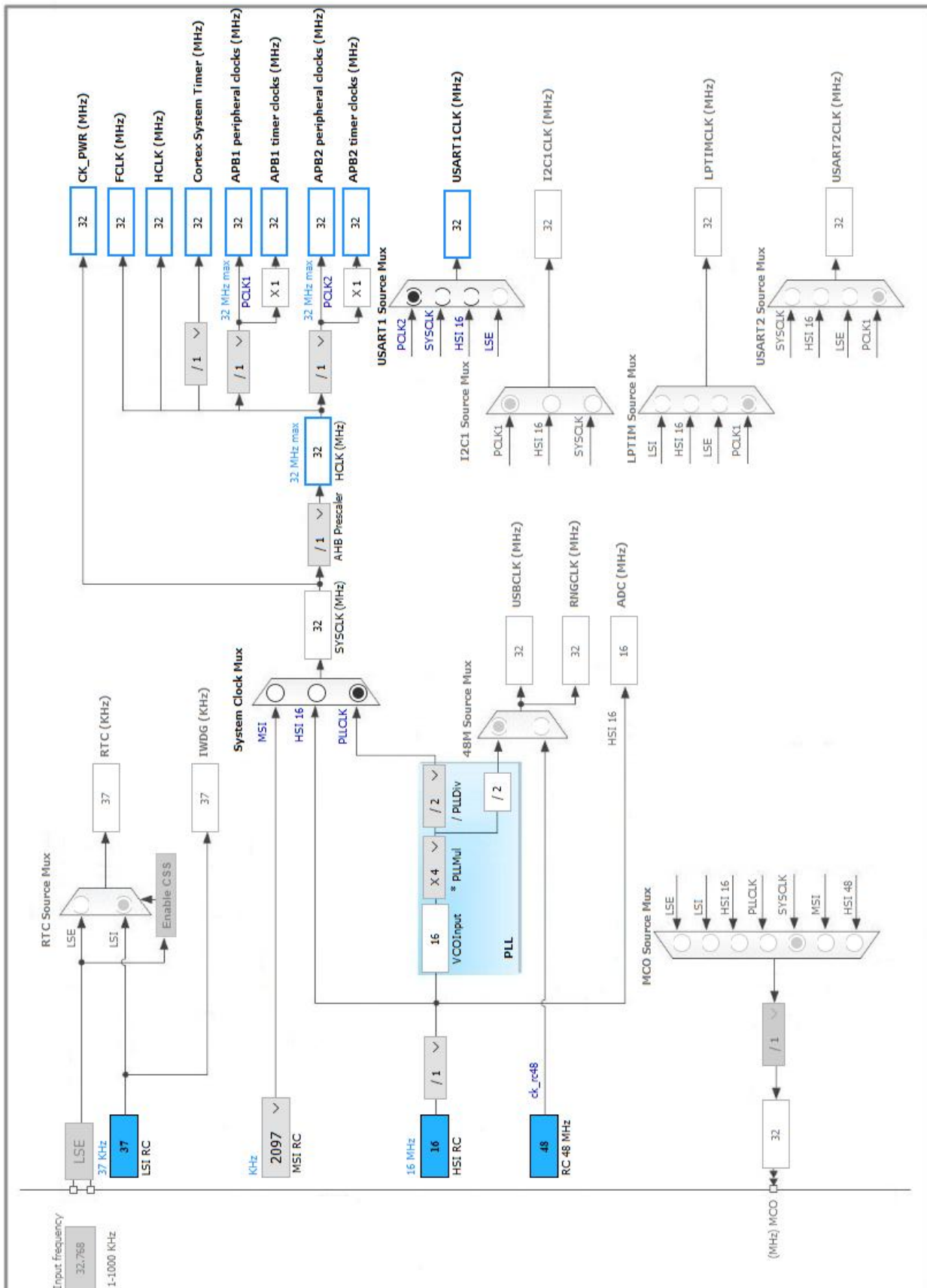


### 3. Pins Configuration

Pin Number LQFP32	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VDD	Power		
4	NRST	Reset		
5	VDDA	Power		
14	PB0 *	I/O	GPIO_Output	TEST_LED
15	PB1 *	I/O	GPIO_Input	TEST_BTN
16	VSS	Power		
17	VDD	Power		
19	PA9	I/O	USART1_TX	UART_TX
20	PA10	I/O	USART1_RX	UART_RX
31	BOOT0	Boot		
32	VSS	Power		

\* The pin is affected with an I/O function

## 4. Clock Tree Configuration



## 5. IPs and Middleware Configuration

### 5.1. SYS

Timebase Source: SysTick

### 5.2. USART1

Mode: Asynchronous

#### 5.2.1. Parameter Settings:

##### Basic Parameters:

Baud Rate	115200
Word Length	<b>8 Bits (including Parity) *</b>
Parity	None
Stop Bits	1

##### Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples
Single Sample	Disable

##### Advanced Features:

Auto Baudrate	Disable
TX Pin Active Level Inversion	Disable
RX Pin Active Level Inversion	Disable
Data Inversion	Disable
TX and RX Pins Swapping	Disable
Overrun	Enable
DMA on RX Error	Enable
MSB First	Disable

\* User modified value

## 6. System Configuration

### 6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
USART1	PA9	USART1_TX	Alternate Function Push Pull	Pull-up	<b>Very High</b> *	UART_TX
	PA10	USART1_RX	Alternate Function Push Pull	Pull-up	<b>Very High</b> *	UART_RX
GPIO	PB0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	TEST_LED
	PB1	GPIO_Input	Input mode	<b>Pull-up</b> *	n/a	TEST_BTN

### 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
System service call via SWI instruction	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 and EEPROM global interrupt	unused		
RCC and CRS global interrupt	unused		
USART1 global interrupt / USART1 wake-up interrupt through EXTI line 25	unused		

\* User modified value

## ***7. Power Consumption Calculator report***

### 7.1. Microcontroller Selection

Series	STM32L0
Line	STM32L0x2
MCU	STM32L052K8Tx
Datasheet	025936_Rev7

### 7.2. Parameter Selection

Temperature	25
Vdd	null



## 8. Software Project

### 8.1. Project Settings

Name	Value
Project Name	pushbtn
Project Folder	C:\Users\sungjune\Personal\Projects\pushbtn
Toolchain / IDE	Makefile
Firmware Package Name and Version	STM32Cube FW_L0 V1.10.0

### 8.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Copy all used libraries into the project folder
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