

1. Description

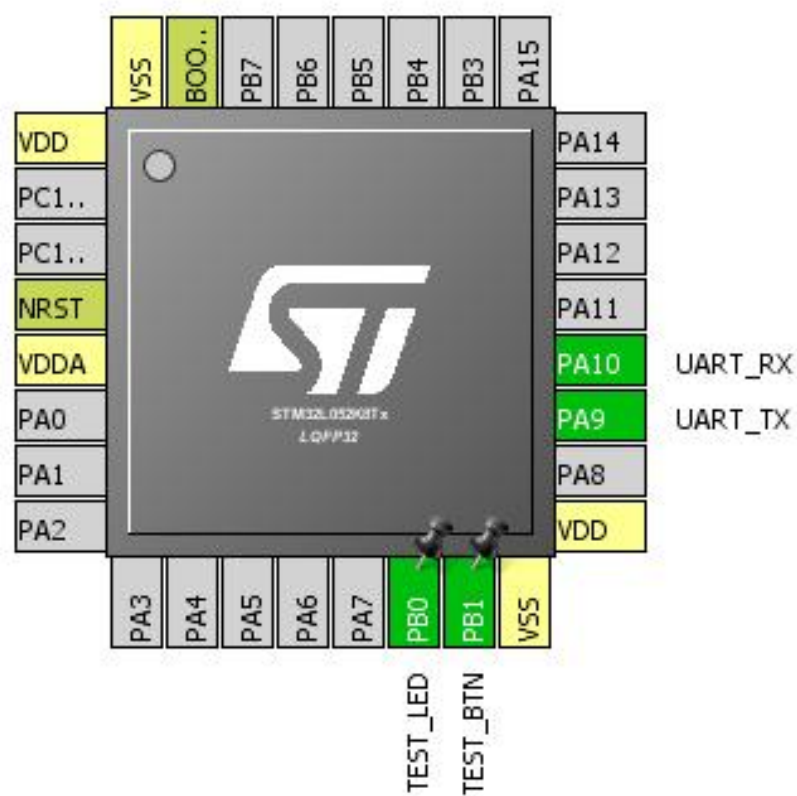
1.1. Project

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

1.2. MCU

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

2. Pinout Configuration

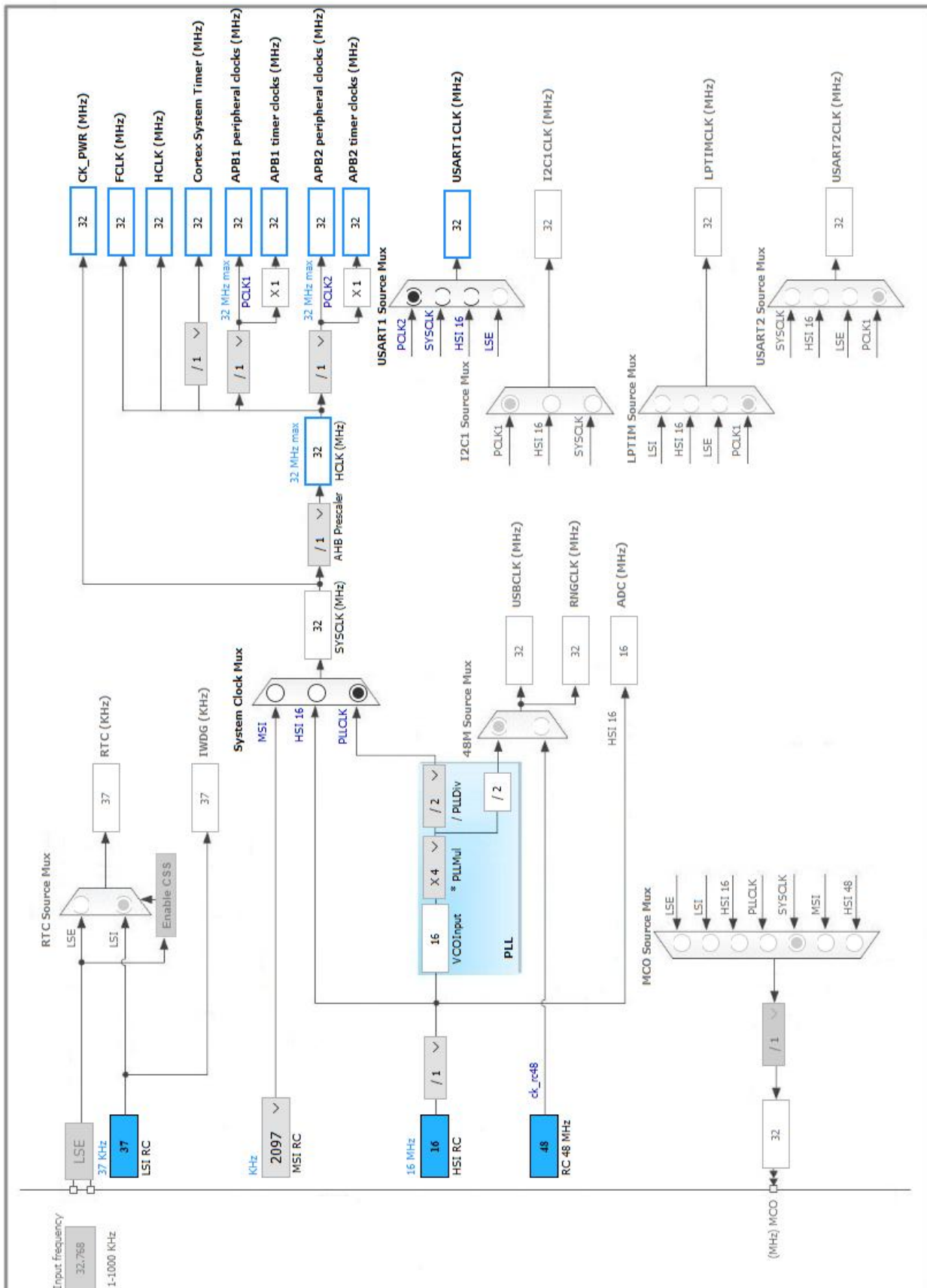


3. Pins Configuration

| 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 | 8 Bits (including Parity) * |
| 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 | Very High * | UART_TX |
| | PA10 | USART1_RX | Alternate Function Push Pull | Pull-up | Very High * | UART_RX |
| GPIO | PB0 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low | TEST_LED |
| | PB1 | GPIO_Input | Input mode | Pull-up * | 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 |