# 1. Description

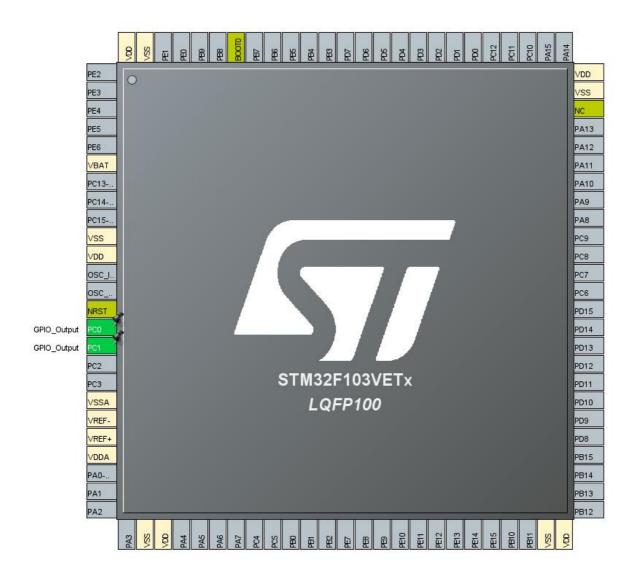
## 1.1. Project

| Project Name    | Demo              |
|-----------------|-------------------|
| Board Name      | custom            |
| Generated with: | STM32CubeMX 5.2.0 |
| Date            | 07/31/2019        |

### 1.2. MCU

| MCU Series     | STM32F1       |
|----------------|---------------|
| MCU Line       | STM32F103     |
| MCU name       | STM32F103VETx |
| MCU Package    | LQFP100       |
| MCU Pin number | 100           |

## 2. Pinout Configuration

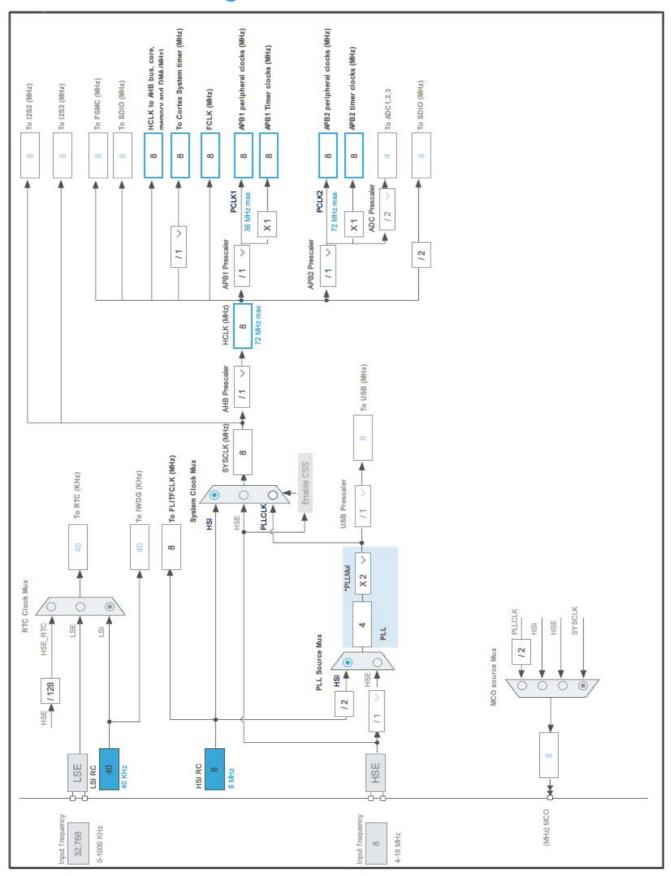


# 3. Pins Configuration

| Pin Number<br>LQFP100 | Pin Name<br>(function after<br>reset) | Pin Type | Alternate<br>Function(s) | Label |
|-----------------------|---------------------------------------|----------|--------------------------|-------|
| 6                     | VBAT                                  | Power    |                          |       |
| 10                    | VSS                                   | Power    |                          |       |
| 11                    | VDD                                   | Power    |                          |       |
| 14                    | NRST                                  | Reset    |                          |       |
| 15                    | PC0 *                                 | I/O      | GPIO_Output              |       |
| 16                    | PC1 *                                 | I/O      | GPIO_Output              |       |
| 19                    | VSSA                                  | Power    |                          |       |
| 20                    | VREF-                                 | Power    |                          |       |
| 21                    | VREF+                                 | Power    |                          |       |
| 22                    | VDDA                                  | Power    |                          |       |
| 27                    | VSS                                   | Power    |                          |       |
| 28                    | VDD                                   | Power    |                          |       |
| 49                    | VSS                                   | Power    |                          |       |
| 50                    | VDD                                   | Power    |                          |       |
| 73                    | NC                                    | NC       |                          |       |
| 74                    | VSS                                   | Power    |                          |       |
| 75                    | VDD                                   | Power    |                          |       |
| 94                    | воото                                 | Boot     |                          |       |
| 99                    | VSS                                   | Power    |                          |       |
| 100                   | VDD                                   | Power    |                          |       |

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

# 4. Clock Tree Configuration



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# 5. Software Project

## 5.1. Project Settings

| Name                              | Value  |
|-----------------------------------|--|
| Project Name                      | Demo   |
| Project Folder                    | C:\Users\My computer\STM32CubeIDE\workspace_1.0.0\Demo |
| Toolchain / IDE                   | STM32CubeIDE   |
| Firmware Package Name and Version | STM32Cube FW_F1 V1.7.0                                 |

## 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            | No                                    |
| consumption)  |                                       |

# 6. Power Consumption Calculator report

#### 6.1. Microcontroller Selection

| Series    | STM32F1       |
|-----------|---------------|
| Line      | STM32F103     |
| MCU       | STM32F103VETx |
| Datasheet | 14611_Rev12   |

#### 6.2. Parameter Selection

| Temperature | 25  |
|-------------|-----|
| Vdd         | 3.3 |

# 7. IPs and Middleware Configuration 7.1. RCC

#### 7.1.1. 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 Timout Value (ms) 100
LSE Startup Timout Value (ms) 5000

#### 7.2. SYS

**Debug: No Debug** 

**Timebase Source: SysTick** 

<sup>\*</sup> User modified value

# 8. System Configuration

## 8.1. GPIO configuration

| IP   | Pin | Signal      | GPIO mode        | GPIO pull/up pull           | Max<br>Speed | User Label |
|------|-----|-------------|------------------|-----------------------------|--------------|------------|
| GPIO | PC0 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low          |            |
|      | PC1 | 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 |                      |             |  |

<sup>\*</sup> User modified value

# 9. Software Pack Report