

## 1. Description

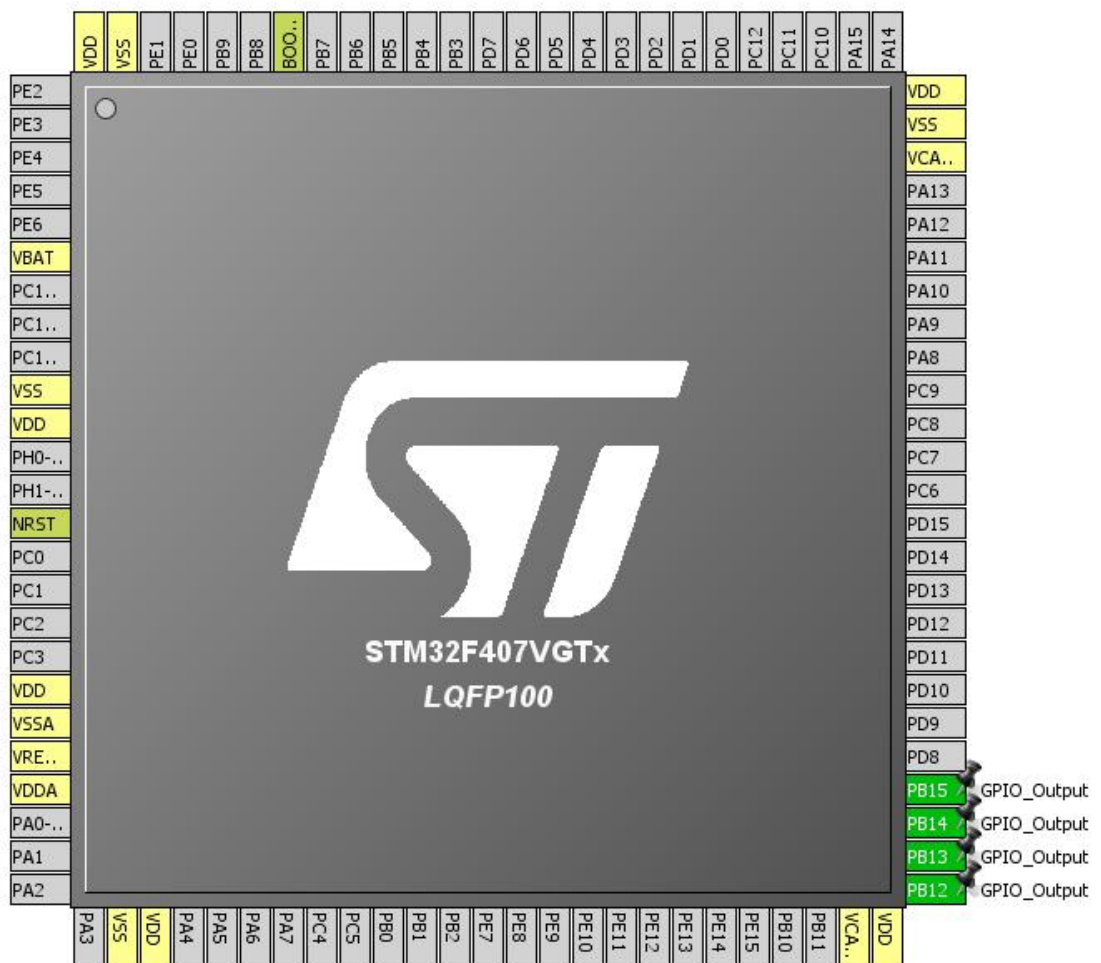
### 1.1. Project

|                 |                    |
|-----------------|--------------------|
| Project Name    | Test               |
| Board Name      | Test               |
| Generated with: | STM32CubeMX 4.16.1 |
| Date            | 10/22/2016         |

### 1.2. MCU

|                |               |
|----------------|---------------|
| MCU Series     | STM32F4       |
| MCU Line       | STM32F407/417 |
| MCU name       | STM32F407VGTx |
| 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    |                          |       |
| 19                    | VDD                                   | Power    |                          |       |
| 20                    | VSSA                                  | Power    |                          |       |
| 21                    | VREF+                                 | Power    |                          |       |
| 22                    | VDDA                                  | Power    |                          |       |
| 27                    | VSS                                   | Power    |                          |       |
| 28                    | VDD                                   | Power    |                          |       |
| 49                    | VCAP_1                                | Power    |                          |       |
| 50                    | VDD                                   | Power    |                          |       |
| 51                    | PB12 *                                | I/O      | GPIO_Output              |       |
| 52                    | PB13 *                                | I/O      | GPIO_Output              |       |
| 53                    | PB14 *                                | I/O      | GPIO_Output              |       |
| 54                    | PB15 *                                | I/O      | GPIO_Output              |       |
| 73                    | VCAP_2                                | Power    |                          |       |
| 74                    | VSS                                   | Power    |                          |       |
| 75                    | VDD                                   | Power    |                          |       |
| 94                    | BOOT0                                 | Boot     |                          |       |
| 99                    | VSS                                   | Power    |                          |       |
| 100                   | VDD                                   | Power    |                          |       |

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



## ***5. IPs and Middleware Configuration***

### ***5.1. SYS***

**Timebase Source: SysTick**

**\* User modified value**

## 6. System Configuration

### 6.1. GPIO configuration

| IP   | Pin  | Signal      | GPIO mode        | GPIO pull/up pull down      | Max Speed | User Label |
|------|------|-------------|------------------|-----------------------------|-----------|------------|
| GPIO | PB12 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low       |            |
|      | PB13 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low       |            |
|      | PB14 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low       |            |
|      | PB15 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low       |            |

### 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           |
| PVD interrupt through EXTI line 16      | unused |                      |             |
| Flash global interrupt                  | unused |                      |             |
| RCC global interrupt                    | unused |                      |             |
| FPU global interrupt                    | unused |                      |             |

\* User modified value

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

### 7.1. Microcontroller Selection

|           |               |
|-----------|---------------|
| Series    | STM32F4       |
| Line      | STM32F407/417 |
| MCU       | STM32F407VGTx |
| Datasheet | 022152_Rev7   |

### 7.2. Parameter Selection

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



## 8. Software Project

### 8.1. Project Settings

| Name                              | Value                   |
|-----------------------------------|-------------------------|
| Project Name                      | Test                    |
| Project Folder                    | D:\Projects\Test        |
| Toolchain / IDE                   | SW4STM32                |
| Firmware Package Name and Version | STM32Cube FW_F4 V1.13.1 |

### 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                                    |