1. Description

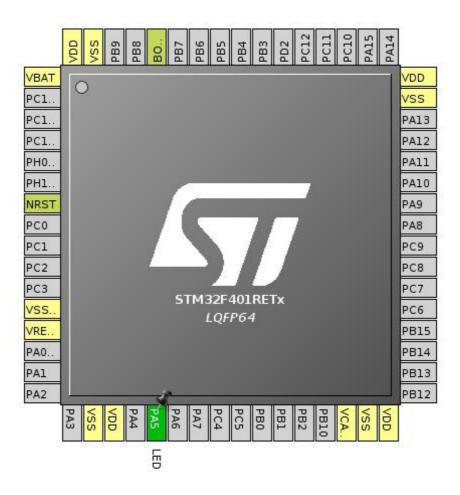
1.1. Project

| Project Name | LED |
|-----------------|--------------------|
| Board Name | LED |
| Generated with: | STM32CubeMX 4.16.0 |
| Date | 08/03/2016 |

1.2. MCU

| MCU Series | STM32F4 |
|----------------|---------------|
| MCU Line | STM32F401 |
| MCU name | STM32F401RETx |
| MCU Package | LQFP64 |
| MCU Pin number | 64 |

2. Pinout Configuration

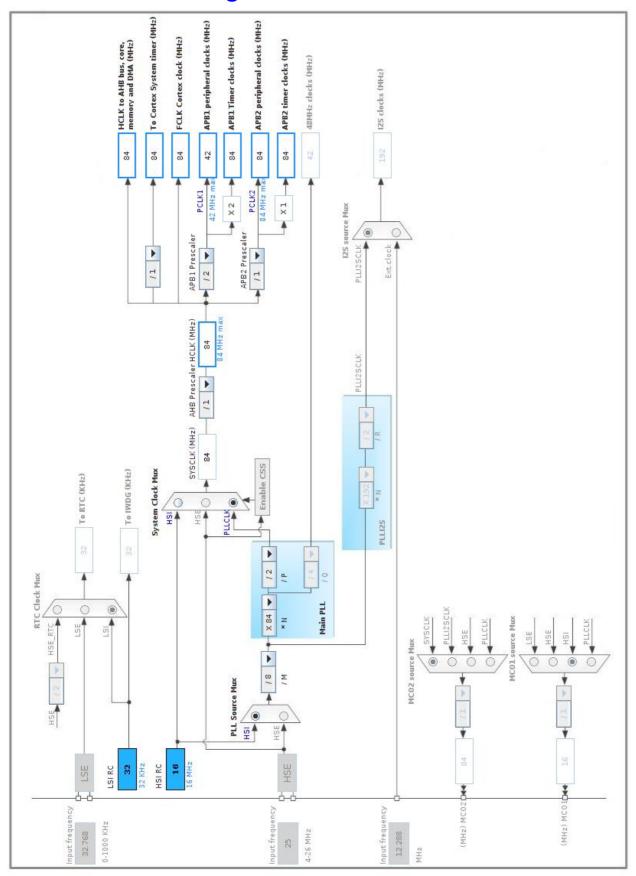


3. Pins Configuration

| Pin Number LQFP64 | Pin Name (function after reset) | Pin Type | Alternate Function(s) | Label |
|----------------------|---------------------------------------|----------|--------------------------|-------|
| 1 | VBAT | Power | | |
| 7 | NRST | Reset | | |
| 12 | VSSA/VREF- | Power | | |
| 13 | VREF+ | Power | | |
| 18 | VSS | Power | | |
| 19 | VDD | Power | | |
| 21 | PA5 * | I/O | GPIO_Output | LED |
| 30 | VCAP1 | Power | | |
| 31 | VSS | Power | | |
| 32 | VDD | Power | | |
| 47 | VSS | Power | | |
| 48 | VDD | Power | | |
| 60 | воото | Boot | | |
| 63 | VSS | Power | | |
| 64 | VDD | Power | | |

^{*} The pin is affected with an I/O function

4. Clock Tree Configuration



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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 | PA5 | GPIO_Output | Output Push Pull | No pull-up and no pull-down | Low | LED |

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 | STM32F401 |
| MCU | STM32F401RETx |
| Datasheet | 025644_Rev3 |

7.2. Parameter Selection

| Temperature | 25 |
|-------------|------|
| Vdd | null |

8. Software Project

8.1. Project Settings

| Name | Value |
|-----------------------------------|--------------------------------|
| Project Name | LED |
| Project Folder | /home/jose/workspaceCortex/LED |
| Toolchain / IDE | SW4STM32 |
| Firmware Package Name and Version | STM32Cube FW_F4 V1.13.0 |

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 | Yes |
| Backup previously generated files when re-generating | Yes |
| Delete previously generated files when not re-generated | Yes |
| Set all free pins as analog (to optimize the power | No |
| consumption) | |