

## 1. Description

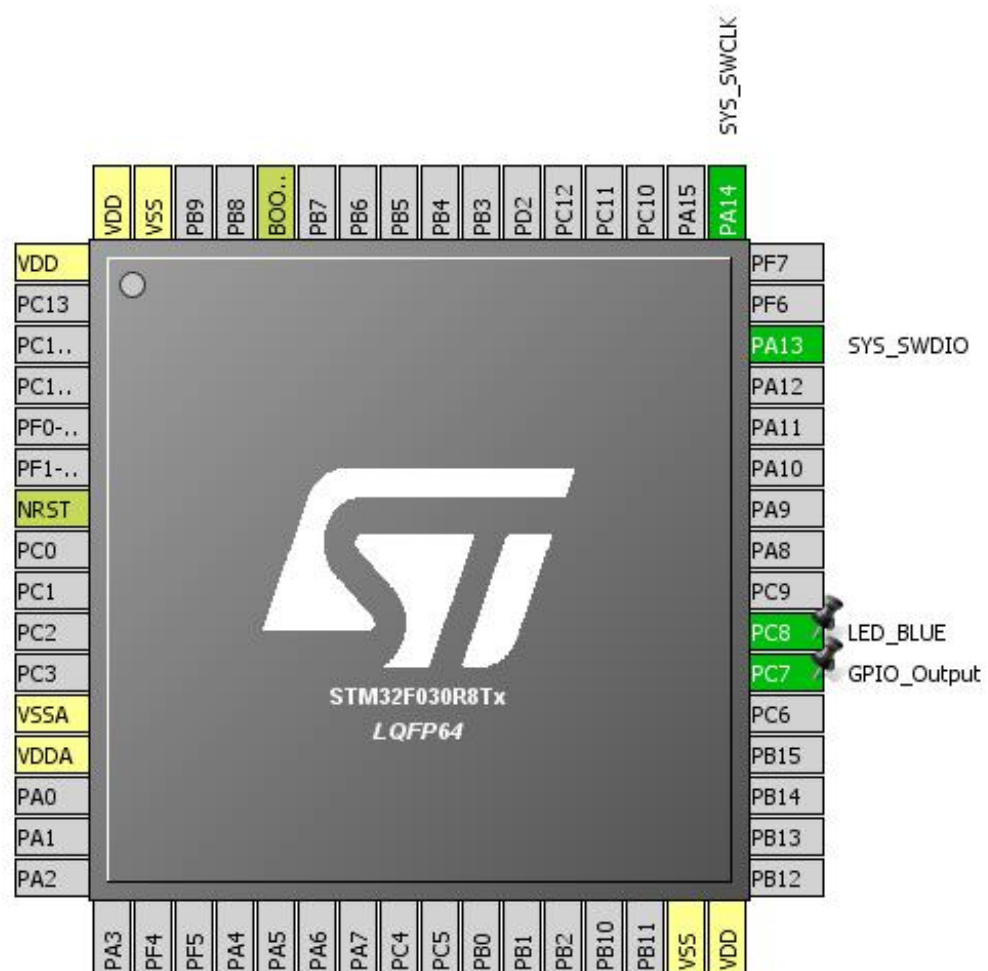
### 1.1. Project

|                 |                    |
|-----------------|--------------------|
| Project Name    | DISCO_TEST         |
| Board Name      | DISCO_TEST         |
| Generated with: | STM32CubeMX 4.22.0 |
| Date            | 08/22/2017         |

### 1.2. MCU

|                |                      |
|----------------|----------------------|
| MCU Series     | STM32F0              |
| MCU Line       | STM32F0x0 Value Line |
| MCU name       | STM32F030R8Tx        |
| MCU Package    | LQFP64               |
| MCU Pin number | 64                   |

## 2. Pinout Configuration

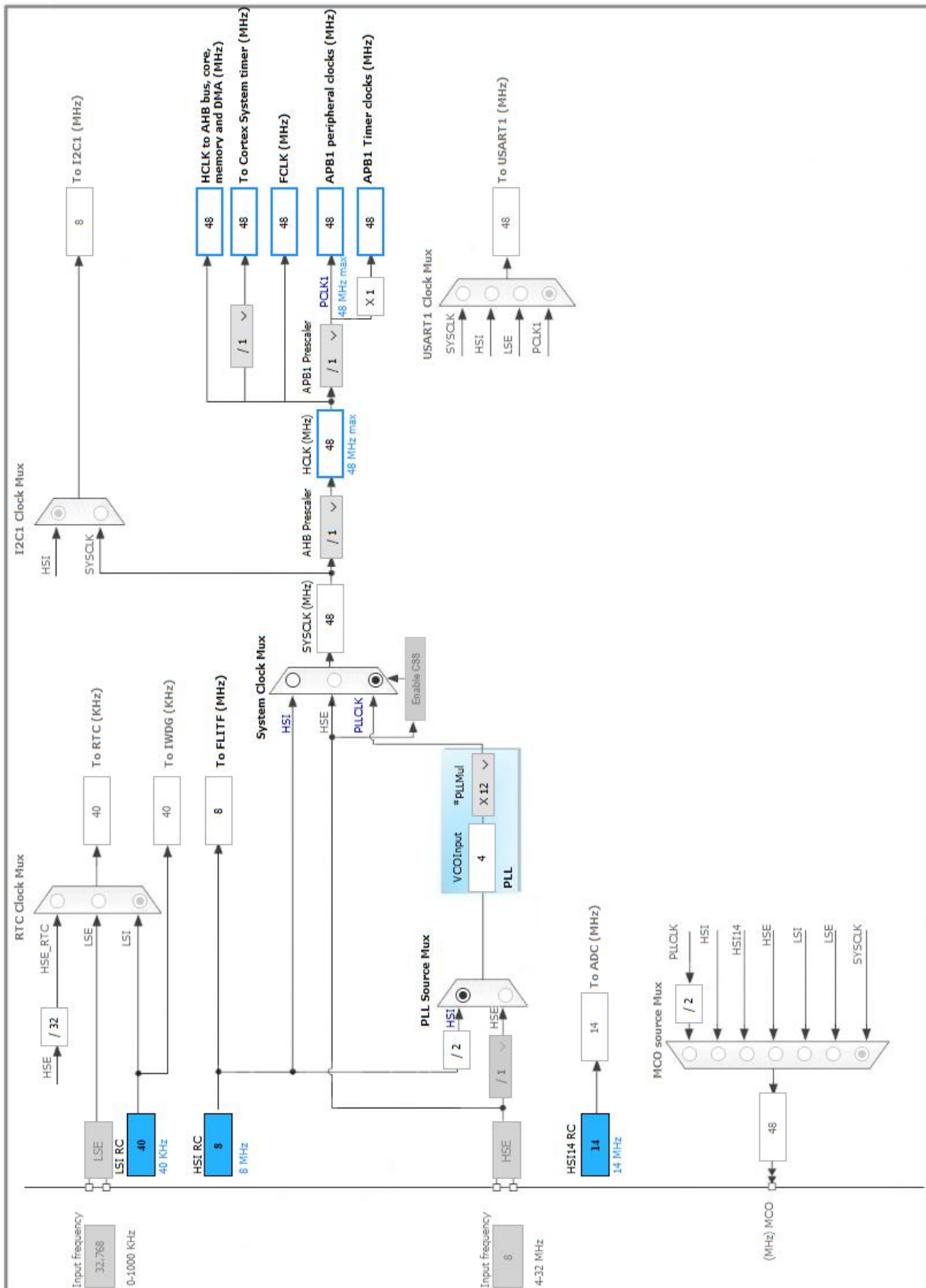


### 3. Pins Configuration

| Pin Number<br>LQFP64 | Pin Name<br>(function after<br>reset) | Pin Type | Alternate<br>Function(s) | Label    |
|----------------------|---------------------------------------|----------|--------------------------|----------|
| 1                    | VDD                                   | Power    |                          |          |
| 7                    | NRST                                  | Reset    |                          |          |
| 12                   | VSSA                                  | Power    |                          |          |
| 13                   | VDDA                                  | Power    |                          |          |
| 31                   | VSS                                   | Power    |                          |          |
| 32                   | VDD                                   | Power    |                          |          |
| 38                   | PC7 *                                 | I/O      | GPIO_Output              |          |
| 39                   | PC8 *                                 | I/O      | GPIO_Output              | LED_BLUE |
| 46                   | PA13                                  | I/O      | SYS_SWDIO                |          |
| 49                   | PA14                                  | I/O      | SYS_SWCLK                |          |
| 60                   | BOOT0                                 | Boot     |                          |          |
| 63                   | VSS                                   | Power    |                          |          |
| 64                   | VDD                                   | Power    |                          |          |

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

## 4. Clock Tree Configuration



## 5. IPs and Middleware Configuration

### 5.1. SYS

mode: Debug Serial Wire

Timebase Source: SysTick

### 5.2. TIM6

mode: Activated

#### 5.2.1. Parameter Settings:

##### Counter Settings:

|   |                |
|---|----------------|
| Prescaler (PSC - 16 bits value)                       | <b>48000 *</b> |
| Counter Mode  | Up             |
| Counter Period (AutoReload Register - 16 bits value ) | 0              |
| auto-reload preload                                   | 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 |
|------|------|-------------|----------------------------|-----------------------------|-----------|------------|
| SYS  | PA13 | SYS_SWDIO   | n/a                        | n/a                         | n/a       |            |
|      | PA14 | SYS_SWCLK   | n/a                        | n/a                         | n/a       |            |
| GPIO | PC7  | GPIO_Output | <b>Output Open Drain *</b> | No pull-up and no pull-down | Low       |            |
|      | PC8  | GPIO_Output | <b>Output Open Drain *</b> | No pull-up and no pull-down | Low       | LED_BLUE   |

### 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           |
| TIM6 global interrupt                   | true   | 0                    | 0           |
| Flash global interrupt                  | unused |                      |             |
| RCC global interrupt                    | unused |                      |             |

\* User modified value

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

### 7.1. Microcontroller Selection

|           |                      |
|-----------|----------------------|
| Series    | STM32F0              |
| Line      | STM32F0x0 Value Line |
| MCU       | STM32F030R8Tx        |
| Datasheet | 024849_Rev2          |

### 7.2. Parameter Selection

|             |     |
|-------------|-----|
| Temperature | 25  |
| Vdd         | 3.6 |



## 8. Software Project

### 8.1. Project Settings

| Name                              | Value  |
|-----------------------------------|--|
| Project Name                      | DISCO_TEST                                     |
| Project Folder                    | C:\Users\Riyamoll\eclipse-workspace\DISCO_TEST |
| Toolchain / IDE                   | SW4STM32                                       |
| Firmware Package Name and Version | STM32Cube FW_F0 V1.8.0                         |

### 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   | 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                                    |