

## 1. Description

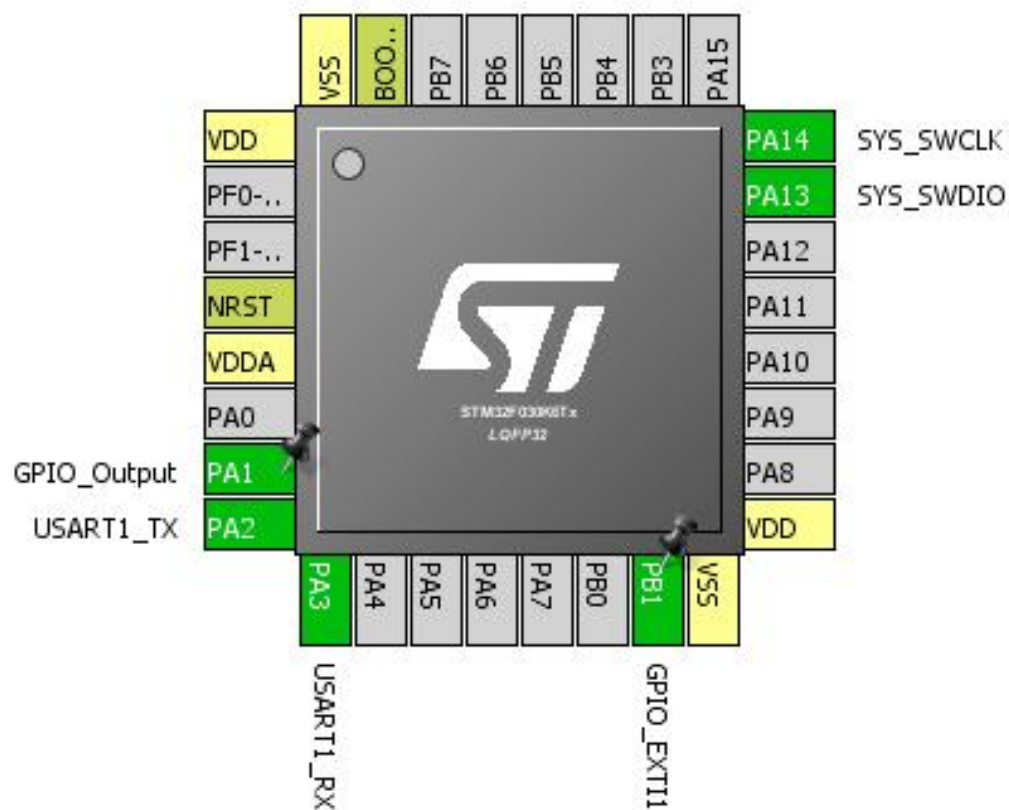
### 1.1. Project

Project Name	SmartLight
Board Name	SmartLight
Generated with:	STM32CubeMX 4.20.1
Date	12/20/2018

### 1.2. MCU

MCU Series	STM32F0
MCU Line	STM32F0x0 Value Line
MCU name	STM32F030K6Tx
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		
7	PA1 *	I/O	GPIO_Output	
8	PA2	I/O	USART1_TX	
9	PA3	I/O	USART1_RX	
15	PB1	I/O	GPIO_EXTI1	
16	VSS	Power		
17	VDD	Power		
23	PA13	I/O	SYS_SWDIO	
24	PA14	I/O	SYS_SWCLK	
31	BOOT0	Boot		
32	VSS	Power		

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



## 5. IPs and Middleware Configuration

### 5.1. SYS

mode: Debug Serial Wire

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
SYS	PA13	SYS_SWDIO	n/a	n/a	n/a	
	PA14	SYS_SWCLK	n/a	n/a	n/a	
USART1	PA2	USART1_TX	Alternate Function Push Pull	Pull-up	<b>High *</b>	
	PA3	USART1_RX	Alternate Function Push Pull	Pull-up	<b>High *</b>	
GPIO	PA1	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	
	PB1	GPIO_EXTI1	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	

### 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
EXTI line 0 and 1 interrupts	true	0	0
USART1 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	STM32F030K6Tx
Datasheet	024849_Rev2

### 7.2. Parameter Selection

Temperature	25
Vdd	3.6



## 8. Software Project

### 8.1. Project Settings

Name	Value
Project Name	SmartLight
Project Folder	F:\PROJECT\SmartLight
Toolchain / IDE	EWARM
Firmware Package Name and Version	STM32Cube FW_F0 V1.7.0

### 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