# 1. Description

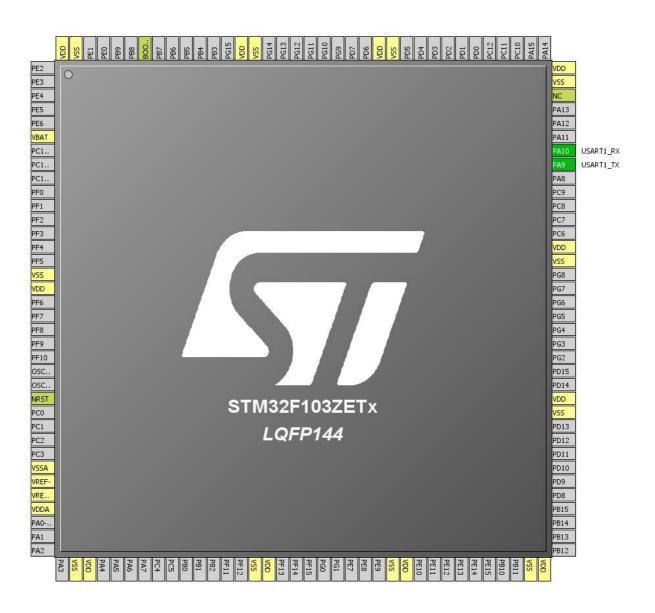
### 1.1. Project

Project Name	WWDG
Board Name	WWDG
Generated with:	STM32CubeMX 4.17.0
Date	11/21/2016

### 1.2. MCU

MCU Series	STM32F1
MCU Line	STM32F103
MCU name	STM32F103ZETx
MCU Package	LQFP144
MCU Pin number	144

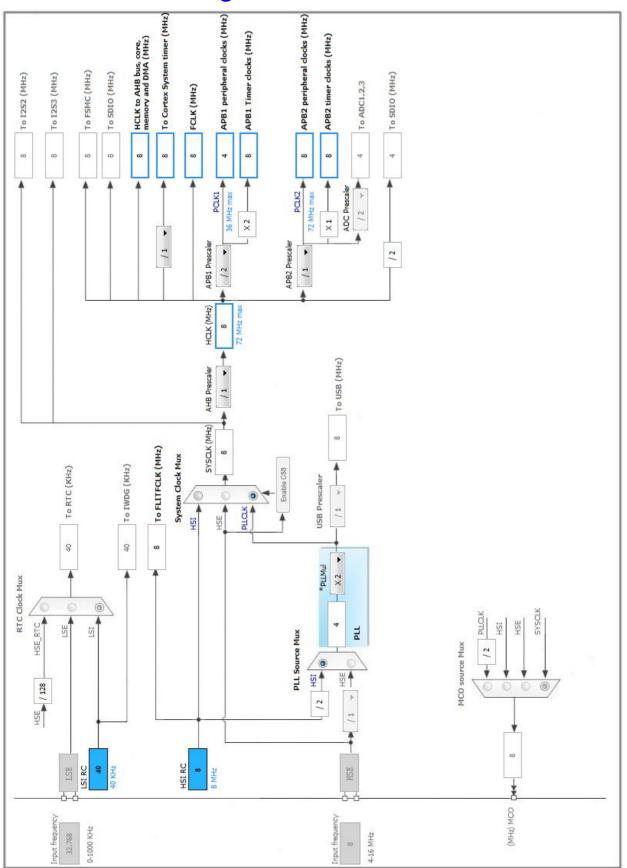
## 2. Pinout Configuration



# 3. Pins Configuration

Pin Number	Pin Name	Din Type	Alternate	Label
LQFP144		Pin Type		Label
LQFF144	(function after		Function(s)	
	reset)			
6	VBAT	Power		
16	VSS	Power		
17	VDD	Power		
25	NRST	Reset		
30	VSSA	Power		
31	VREF-	Power		
32	VREF+	Power		
33	VDDA	Power		
38	VSS	Power		
39	VDD	Power		
51	VSS	Power		
52	VDD	Power		
61	VSS	Power		
62	VDD	Power		
71	VSS	Power		
72	VDD	Power		
83	VSS	Power		
84	VDD	Power		
94	VSS	Power		
95	VDD	Power		
101	PA9	I/O	USART1_TX	
102	PA10	I/O	USART1_RX	
106	NC	NC		
107	VSS	Power		
108	VDD	Power		
120	VSS	Power		
121	VDD	Power		
130	VSS	Power		
131	VDD	Power		
138	ВООТ0	Boot		
143	VSS	Power		
144	VDD	Power		

## 4. Clock Tree Configuration



## 5. IPs and Middleware Configuration

#### 5.1. SYS

**Debug: No Debug** 

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

#### 5.3. WWDG

mode: Activated

#### 5.3.1. Parameter Settings:

#### **Watchdog Clocking:**

WWDG counter clock prescaler 8 \*

WWDG window value 90 \*

WWDG free-running downcounter value 127 \*

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

# 6. System Configuration

### 6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull	Max	User Label
				down	Speed	
USART1	PA9	USART1_TX	Alternate Function Push Pull	n/a	High *	
	PA10	USART1_RX	Input mode	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
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
Window watchdog interrupt	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
USART1 global interrupt	unused		

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

## 7. Power Consumption Calculator report

#### 7.1. Microcontroller Selection

Series	STM32F1
Line	STM32F103
мси	STM32F103ZETx
Datasheet	14611_Rev12

### 7.2. Parameter Selection

Temperature	25
Vdd	3.3

# 8. Software Project

### 8.1. Project Settings

Name	Value
Project Name	WWDG
Project Folder	D:\Open103Z-Demo-HAL\15.WWDG\WWDG
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_F1 V1.4.0

### 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	Yes
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)	