1. Description

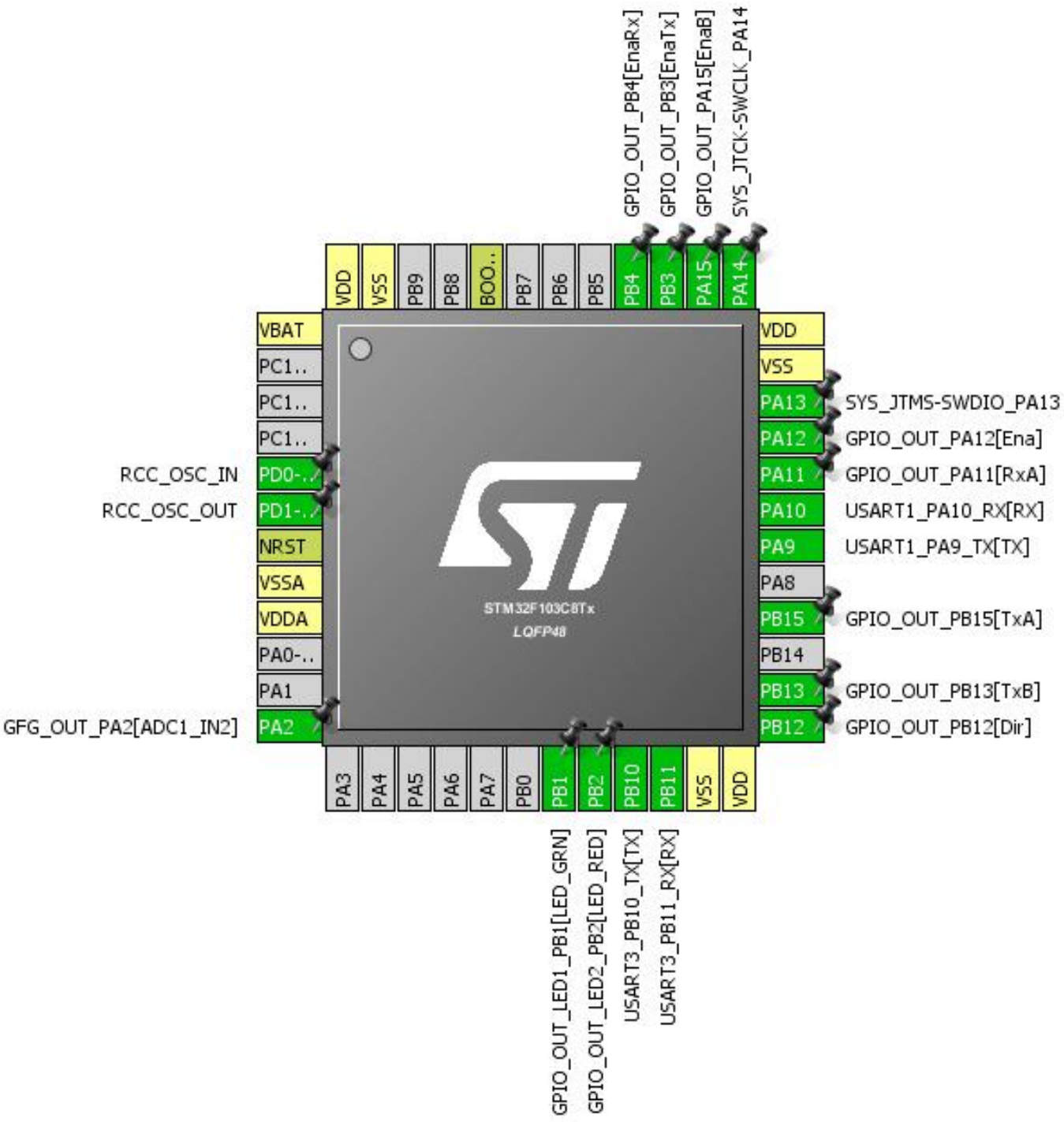
1.1. Project

Project Name	UniAdapter
Board Name	UniAdapter
Generated with:	STM32CubeMX 4.22.1
Date	10/31/2017

1.2. MCU

MCU Series	STM32F1
MCU Line	STM32F103
MCU name	STM32F103C8Tx
MCU Package	LQFP48
MCU Pin number	48

2. Pinout Configuration

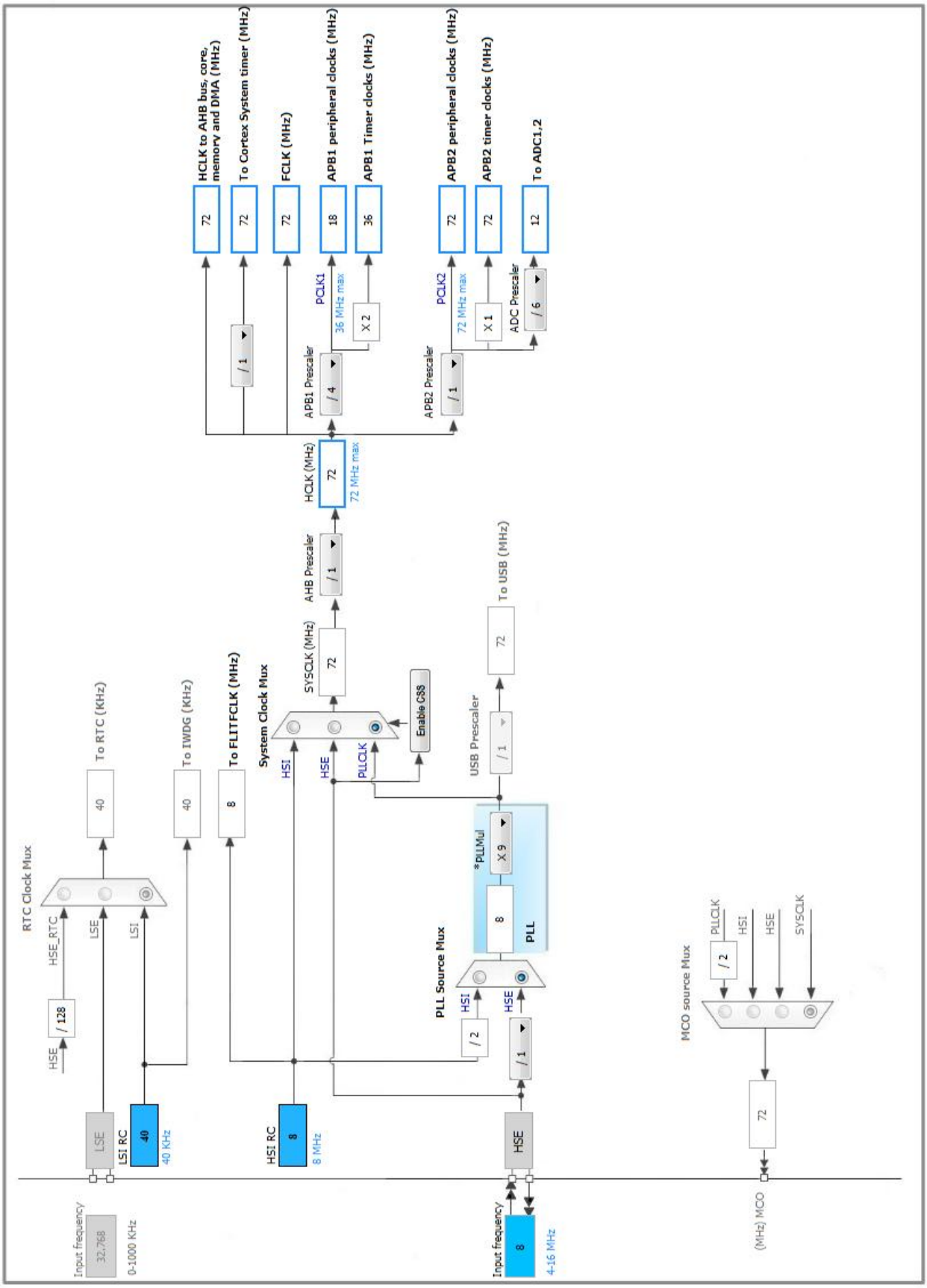


3. Pins Configuration

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
5	PD0-OSC_IN	I/O	RCC_OSC_IN	
6	PD1-OSC_OUT	I/O	RCC_OSC_OUT	
7	NRST	Reset		
8	VSSA	Power		
9	VDDA	Power		
12	PA2	I/O	ADC1_IN2	GFG_OUT_PA2[ADC1_IN2]
19	PB1 *	I/O	GPIO_Output	GPIO_OUT_LED1_PB1[LED_GRN]
20	PB2 *	I/O	GPIO_Output	GPIO_OUT_LED2_PB2[LED_RED]
21	PB10	I/O	USART3_TX	USART3_PB10_TX[TX]
22	PB11	I/O	USART3_RX	USART3_PB11_RX[RX]
23	VSS	Power		
24	VDD	Power		
25	PB12 *	I/O	GPIO_Output	GPIO_OUT_PB12[Dir]
26	PB13 *	I/O	GPIO_Output	GPIO_OUT_PB13[TxB]
28	PB15 *	I/O	GPIO_Output	GPIO_OUT_PB15[TxA]
30	PA9	I/O	USART1_TX	USART1_PA9_TX[TX]
31	PA10	I/O	USART1_RX	USART1_PA10_RX[RX]
32	PA11 *	I/O	GPIO_Output	GPIO_OUT_PA11[RxA]
33	PA12 *	I/O	GPIO_Output	GPIO_OUT_PA12[Ena]
34	PA13	I/O	SYS_JTMS-SWDIO	SYS_JTMS-SWDIO_PA13
35	VSS	Power		
36	VDD	Power		
37	PA14	I/O	SYS_JTCK-SWCLK	SYS_JTCK-SWCLK_PA14
38	PA15 *	I/O	GPIO_Output	GPIO_OUT_PA15[EnaB]
39	PB3 *	I/O	GPIO_Output	GPIO_OUT_PB3[EnaTx]
40	PB4 *	I/O	GPIO_Output	GPIO_OUT_PB4[EnaRx]
44	BOOT0	Boot		
47	VSS	Power		
48	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. ADC1

mode: IN2

5.1.1. Parameter Settings:

ADCs_Common_Settings:

Mode	Independent mode

ADC_Settings:

Data Alignment	Right alignment
Scan Conversion Mode	Disabled
Continuous Conversion Mode	Disabled
Discontinuous Conversion Mode	Disabled

ADC_Regular_ConversionMode:

Enable Regular Conversions	Enable
Number Of Conversion	1
External Trigger Conversion Source	Regular Conversion launched by software
Rank	1
Channel	Channel 2
Sampling Time	1.5 Cycles

ADC_Injected_ConversionMode:

Number Of Conversions	0

WatchDog:

Enable Analog WatchDog Mode	false

5.2. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

5.2.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Prefetch Buffer	Enabled
Flash Latency(WS)	2 WS (3 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

5.3. SYS

Debug: Serial Wire

Timebase Source: SysTick

5.4. USART1

Mode: Asynchronous

5.4.1. Parameter Settings:

Basic Parameters:

Baud Rate	**9600 ***
Word Length	8 Bits (including Parity)
Parity	None
Stop Bits	1

Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples

5.5. USART3

Mode: Asynchronous

5.5.1. Parameter Settings:

Basic Parameters:

Baud Rate	**9600 ***
Word Length	8 Bits (including Parity)
Parity	None
Stop Bits	1

Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
ADC1	PA2	ADC1_IN2	Analog mode	n/a	n/a	GFG_OUT_PA2[ADC1_IN2]
RCC	PD0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PD1-OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
SYS	PA13	SYS_JTMS-SWDIO	n/a	n/a	n/a	SYS_JTMS-SWDIO_PA13
	PA14	SYS_JTCK-SWCLK	n/a	n/a	n/a	SYS_JTCK-SWCLK_PA14
USART1	PA9	USART1_TX	Alternate Function Push Pull	n/a	**High ***	USART1_PA9_TX[TX]
	PA10	USART1_RX	Input mode	No pull-up and no pull-down	**n/a**	USART1_PA10_RX[RX]
USART3	PB10	USART3_TX	Alternate Function Push Pull	n/a	**High ***	USART3_PB10_TX[TX]
	PB11	USART3_RX	Input mode	No pull-up and no pull-down	**n/a**	USART3_PB11_RX[RX]
GPIO	PB1	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_LED1_PB1[LED_GRN]
	PB2	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_LED2_PB2[LED_RED]
	PB12	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PB12[Dir]
	PB13	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PB13[TxB]
	PB15	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PB15[TxA]
	PA11	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PA11[RxA]
	PA12	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PA12[Ena]
	PA15	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PA15[EnaB]
	PB3	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PB3[EnaTx]
	PB4	GPIO_Output	Output Push Pull	n/a	**High ***	GPIO_OUT_PB4[EnaRx]

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
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
ADC1 and ADC2 global interrupts	unused		
USART1 global interrupt	unused		
USART3 global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F1
Line	STM32F103
MCU	STM32F103C8Tx
Datasheet	13587_Rev17

7.2. Parameter Selection

Temperature	25
Vdd	3.3

8. Software Project

8.1. Project Settings

Name	Value
Project Name	UniAdapter
Project Folder	C:\Users\spicin\GIT\UAdapter\UniAdapter
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_F1 V1.6.0

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 consumption)	Yes