1. Description

1.1. Project

Project Name	STM32L151CB
Board Name	custom
Generated with:	STM32CubeMX 4.26.0
Date	06/25/2018

1.2. MCU

MCU Series	STM32L1
MCU Line	STM32L151/152
MCU name	STM32L151CBTx
MCU Package	LQFP48
MCU Pin number	48

2. Pinout Configuration
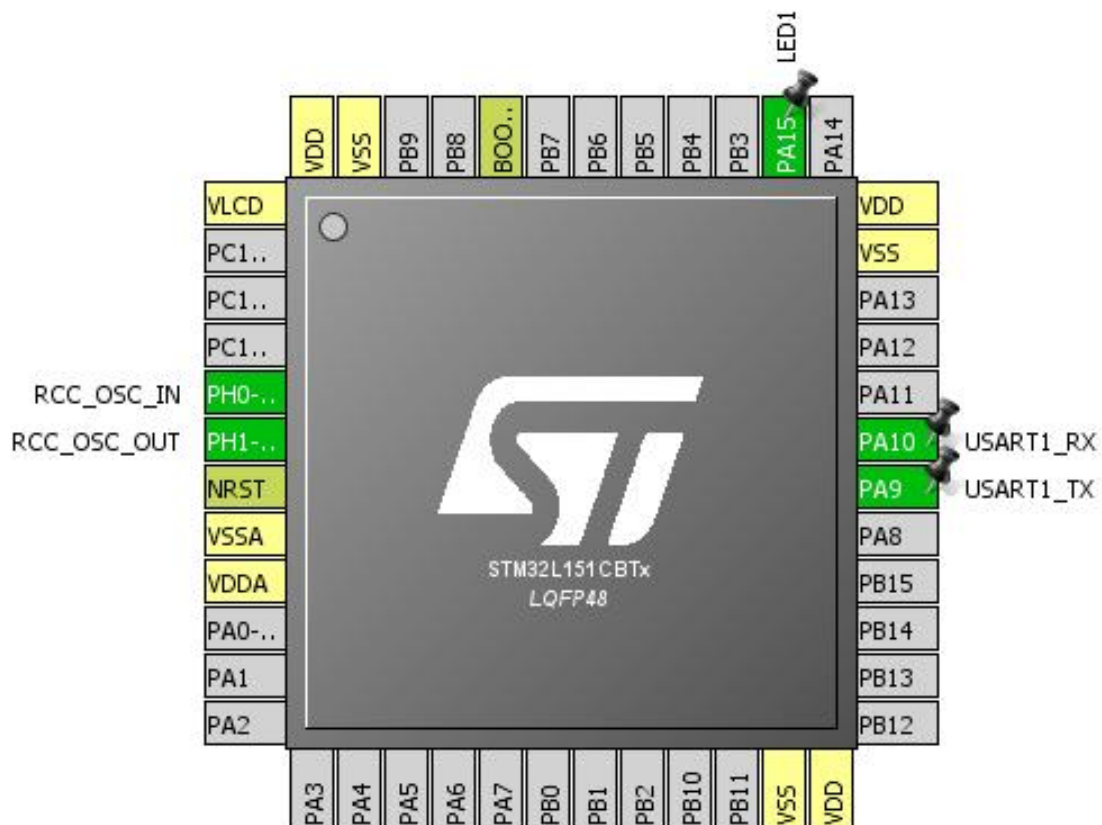
3. Pins Configuration

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VLCD	Power		
5	PH0-OSC_IN	I/O	RCC_OSC_IN	
6	PH1-OSC_OUT	I/O	RCC_OSC_OUT	
7	NRST	Reset		
8	VSSA	Power		
9	VDDA	Power		
23	VSS	Power		
24	VDD	Power		
30	PA9	I/O	USART1_TX	USART1_TX
31	PA10	I/O	USART1_RX	USART1_RX
35	VSS	Power		
36	VDD	Power		
38	PA15 *	I/O	GPIO_Output	LED1
44	BOOT0	Boot		
47	VSS	Power		
48	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration
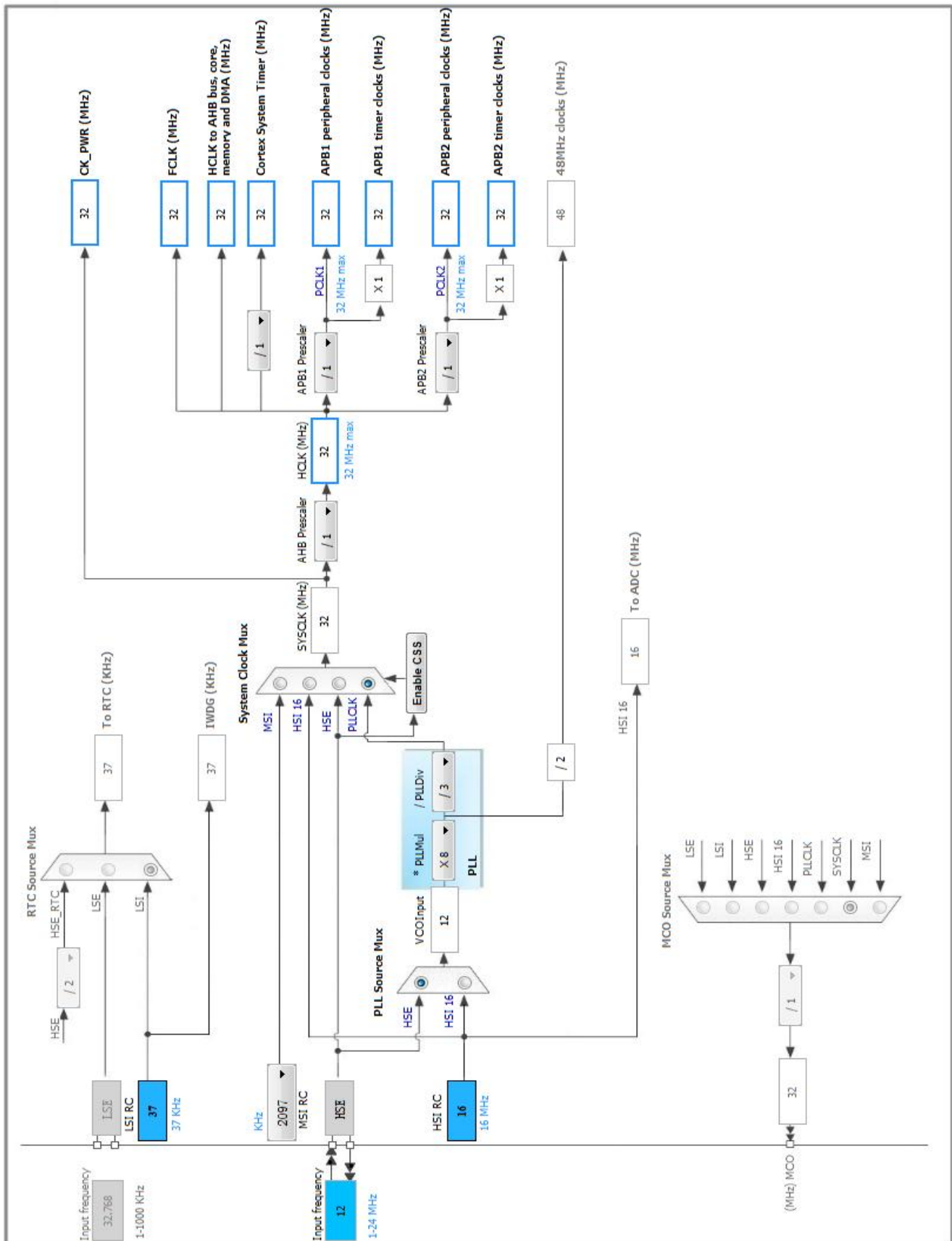
5. IPs and Middleware Configuration

5.1. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

5.1.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	Disabled
Data Cache	Enabled
Flash Latency(WS)	1 WS (2 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
MSI Calibration Value	0
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

Power Parameters:

Power Regulator Voltage Scale	Power Regulator Voltage Scale 1

5.2. SYS

Timebase Source: SysTick

5.3. USART1

Mode: Asynchronous

5.3.1. 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

* User modified value

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
RCC	PH0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PH1-OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
USART1	PA9	USART1_TX	Alternate Function Push Pull	Pull-up	**High ***	USART1_TX
	PA10	USART1_RX	Alternate Function Push Pull	Pull-up	**High ***	USART1_RX
GPIO	PA15	GPIO_Output	Output Push Pull	No pull-up and no pull-down	**High ***	LED1

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
Flash global interrupt	unused		
RCC global interrupt	unused		
USART1 global interrupt	unused		

* User modified value

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32L1
Line	STM32L151/152
MCU	STM32L151CBTx
Datasheet	17659_Rev12

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	STM32L151CB
Project Folder	C:\Users\dell\Desktop\STM32L151CB_Bootloader\STM32L151CB
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_L1 V1.8.1

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)	No

9. Software Pack Report