1. Description

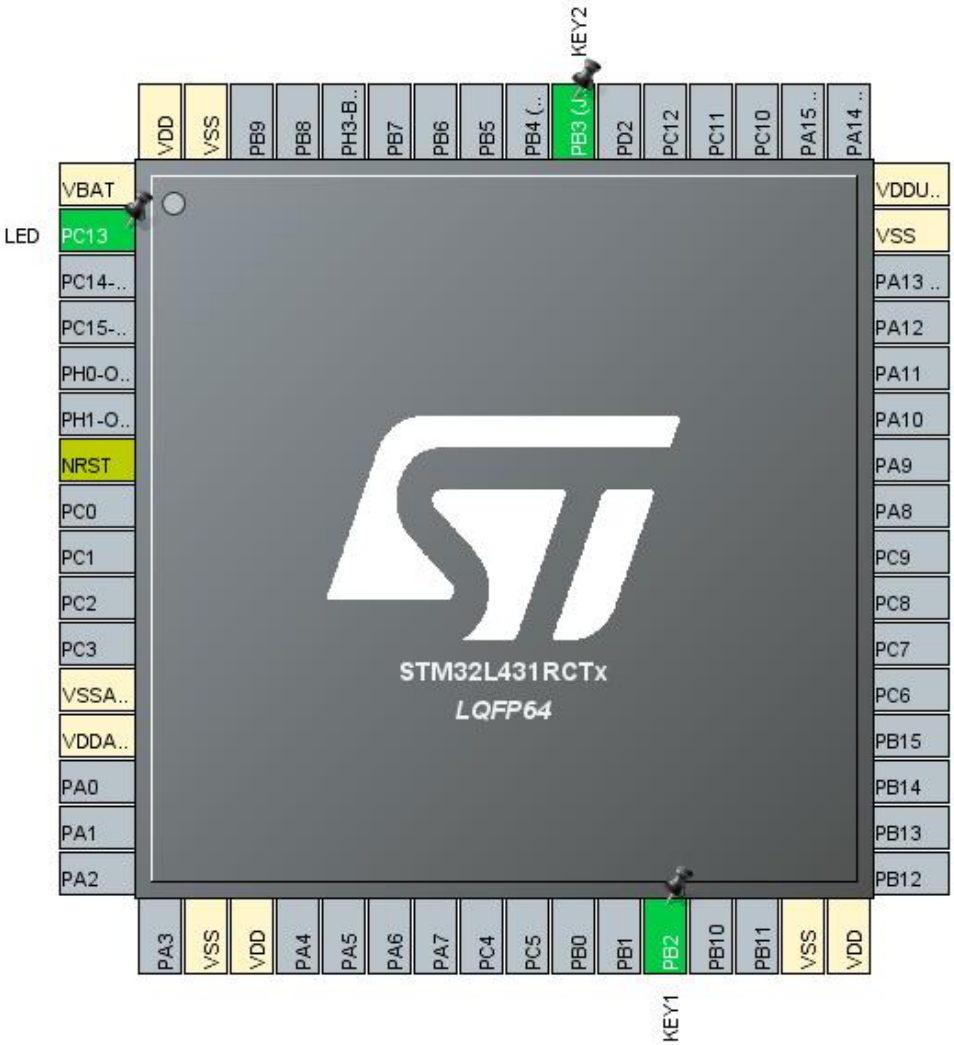
1.1. Project

Project Name	STM32L431RC_BearPiKEY
Board Name	custom
Generated with:	STM32CubeMX 5.3.0
Date	04/14/2020

1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x1
MCU name	STM32L431RCTx
MCU Package	LQFP64
MCU Pin number	64

2. Pinout Configuration

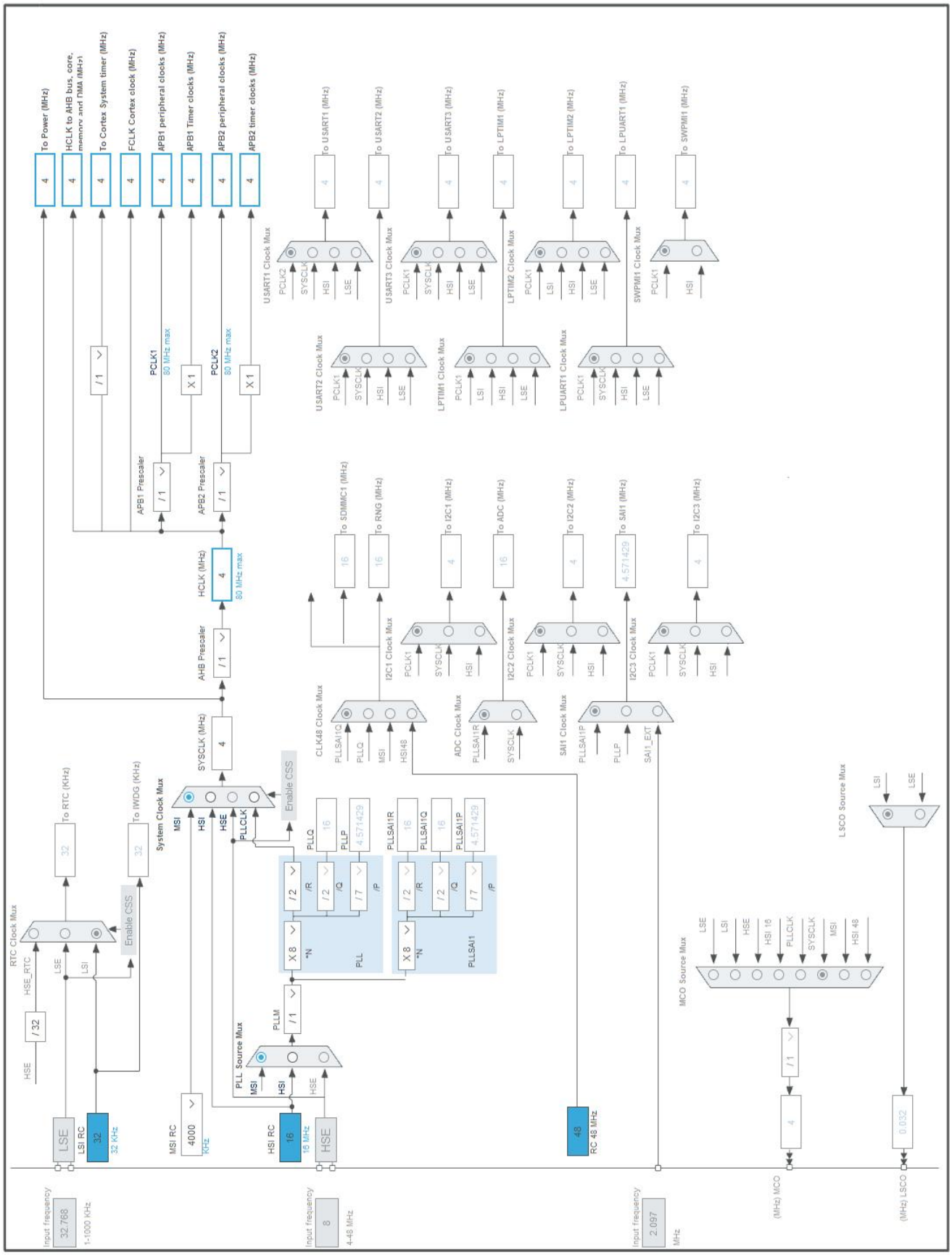


3. Pins Configuration

Pin Number LQFP64	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
2	PC13 *	I/O	GPIO_Output	LED
7	NRST	Reset		
12	VSSA/VREF-	Power		
13	VDDA/VREF+	Power		
18	VSS	Power		
19	VDD	Power		
28	PB2 *	I/O	GPIO_Input	KEY1
31	VSS	Power		
32	VDD	Power		
47	VSS	Power		
48	VDDUSB	Power		
55	PB3 (JTDO-TRACESWO) *	I/O	GPIO_Input	KEY2
63	VSS	Power		
64	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. Software Project

5.1. Project Settings

Name	Value
Project Name	STM32L431RC_BearPiKEY
Project Folder	E:\STM32Projects\STM32L431RC_BearPiKEY
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_L4 V1.14.0

5.2. Code Generation Settings

Name	Value
STM32Cube MCU packages and embedded software	Copy only the necessary library files
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

6. Power Consumption Calculator report

6.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x1
MCU	STM32L431RCTx
Datasheet	028800_Rev1

6.2. Parameter Selection

Temperature	25
Vdd	3.0

7. IPs and Middleware Configuration

7.1. RCC

7.1.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	Disabled
Data Cache	Enabled
Flash Latency(WS)	0 WS (1 CPU cycle)

RCC Parameters:

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

Power Parameters:

Power Regulator Voltage Scale	Power Regulator Voltage Scale 1

7.2. SYS

Timebase Source: SysTick

*** User modified value**

8. System Configuration

8.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
GPIO	PC13	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LED
	PB2	GPIO_Input	Input mode	**Pull-up ***	n/a	KEY1
	PB3 (JTDO-TRACESWO)	GPIO_Input	Input mode	**Pull-up ***	n/a	KEY2

8.2. DMA configuration

nothing configured in DMA service

8.3. 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/PVM1/PVM2/PVM3/PVM4 interrupts through EXTI lines 16/35/36/37/38	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

9. Software Pack Report