1. Description

1.1. Project

Project Name	RS2321
Board Name	custom
Generated with:	STM32CubeMX 4.27.0
Date	11/20/2018

1.2. MCU

|	
MCU Series	STM32F3
MCU Line	STM32F302
MCU name	STM32F302R8Tx
MCU Package	LQFP64
MCU Pin number	64

2. Pinout Configuration
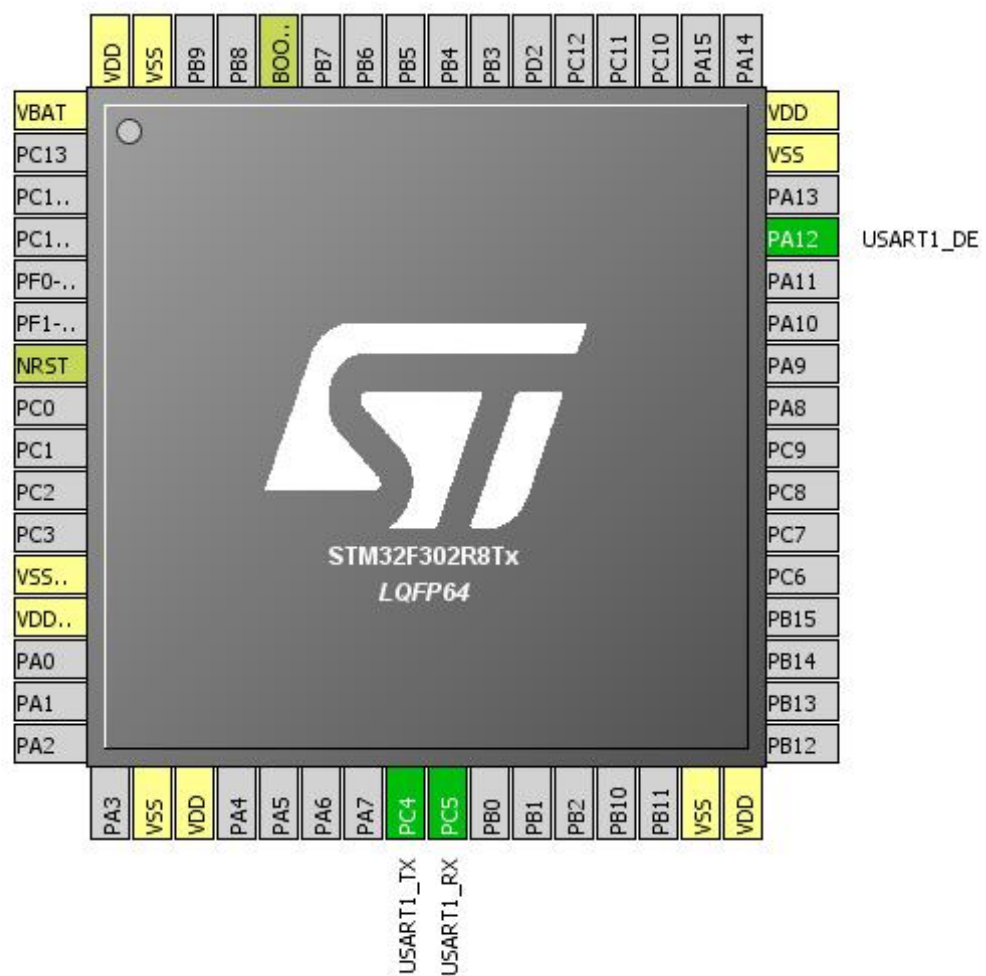
3. Pins Configuration

Pin Number LQFP64	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
7	NRST	Reset		
12	VSSA/VREF-	Power		
13	VDDA/VREF+	Power		
18	VSS	Power		
19	VDD	Power		
24	PC4	I/O	USART1_TX	
25	PC5	I/O	USART1_RX	
31	VSS	Power		
32	VDD	Power		
45	PA12	I/O	USART1_DE	
47	VSS	Power		
48	VDD	Power		
60	BOOT0	Boot		
63	VSS	Power		
64	VDD	Power		

4. Clock Tree Configuration
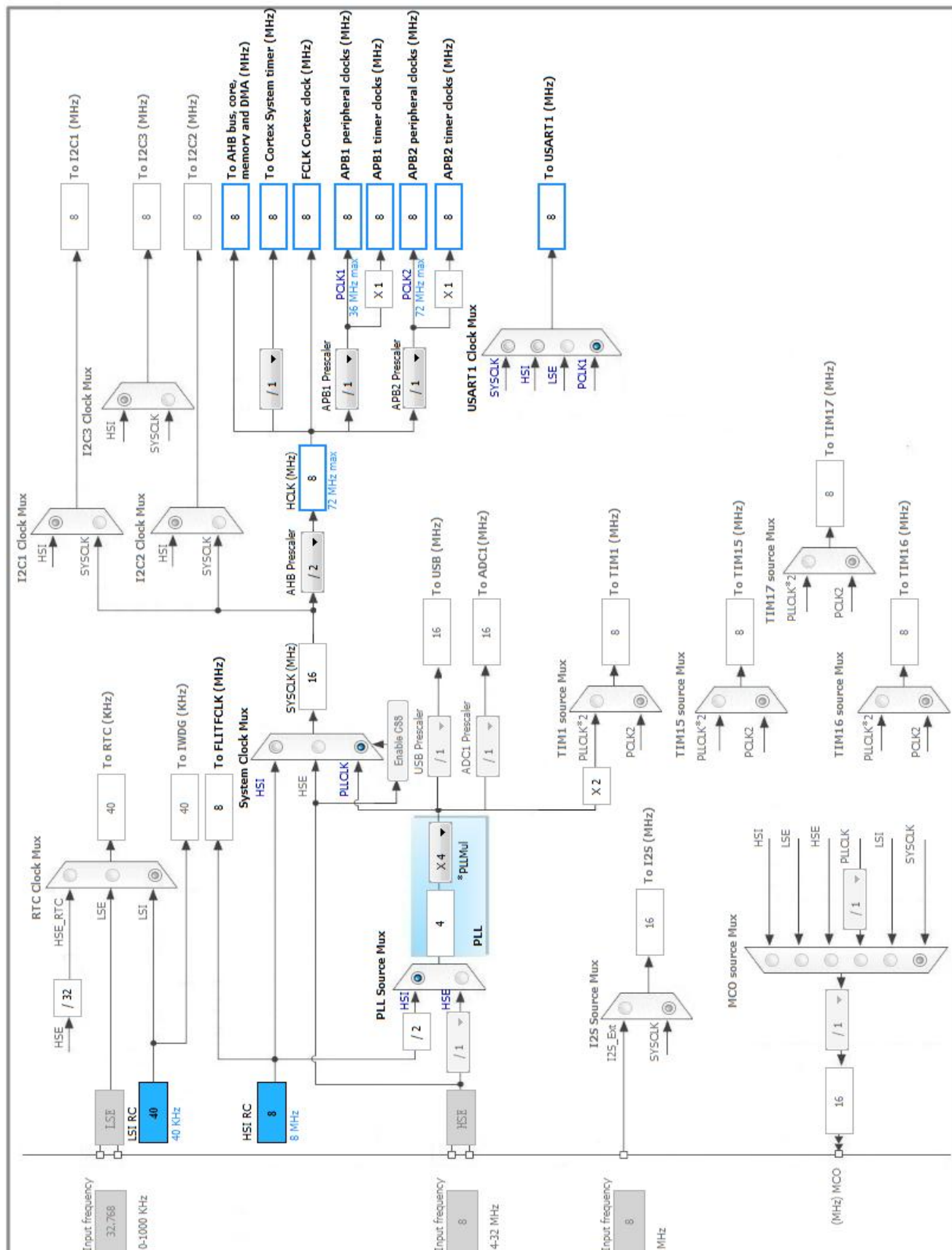
5. IPs and Middleware Configuration

5.1. SYS

Timebase Source: SysTick

5.2. USART1

Mode: Asynchronous

mode: Hardware Flow Control (RS485)

5.2.1. Parameter Settings:

Basic Parameters:

Baud Rate	38400
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
Polarity	High
Assertion Time	0
Deassertion Time	0

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
USART1	PC4	USART1_TX	Alternate Function Push Pull	No pull up pull down	**High ***	
	PC5	USART1_RX	Alternate Function Push Pull	No pull up pull down	**High ***	
	PA12	USART1_DE	Alternate Function Push Pull	No pull up pull down	**High ***	

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
PVD interrupt through EXTI line16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
USART1 global interrupt / USART1 wake-up interrupt through EXTI line 25	unused		
Floating point unit interrupt	unused		

* User modified value

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F3
Line	STM32F302
MCU	STM32F302R8Tx
Datasheet	025147_Rev7

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	RS2321
Project Folder	C:\Users\Administrator\Desktop\Mytest\RS2321
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_F3 V1.10.0

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

9. Software Pack Report