1. Description

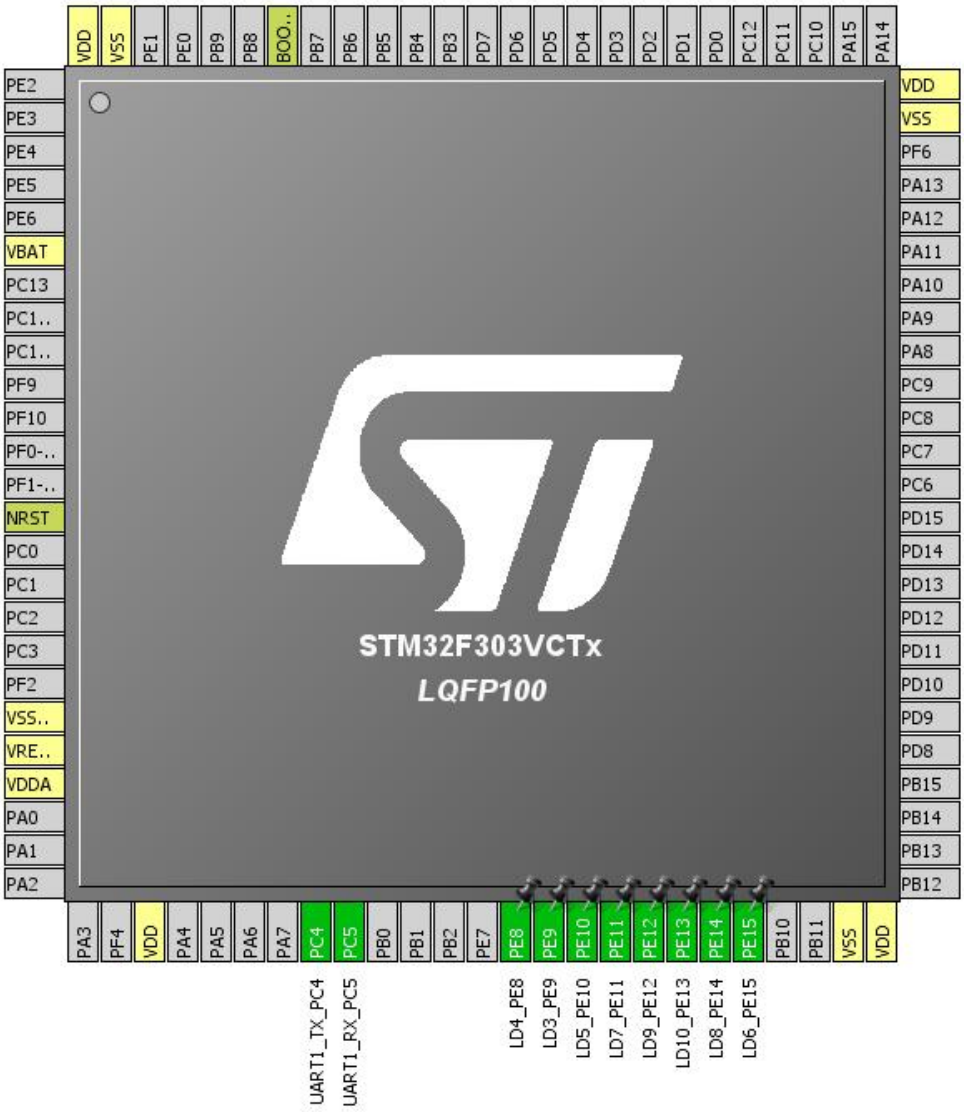
1.1. Project

Project Name	UART_ECHO
Board Name	custom
Generated with:	STM32CubeMX 4.27.0
Date	11/18/2018

1.2. MCU

MCU Series	STM32F3
MCU Line	STM32F303
MCU name	STM32F303VCTx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration

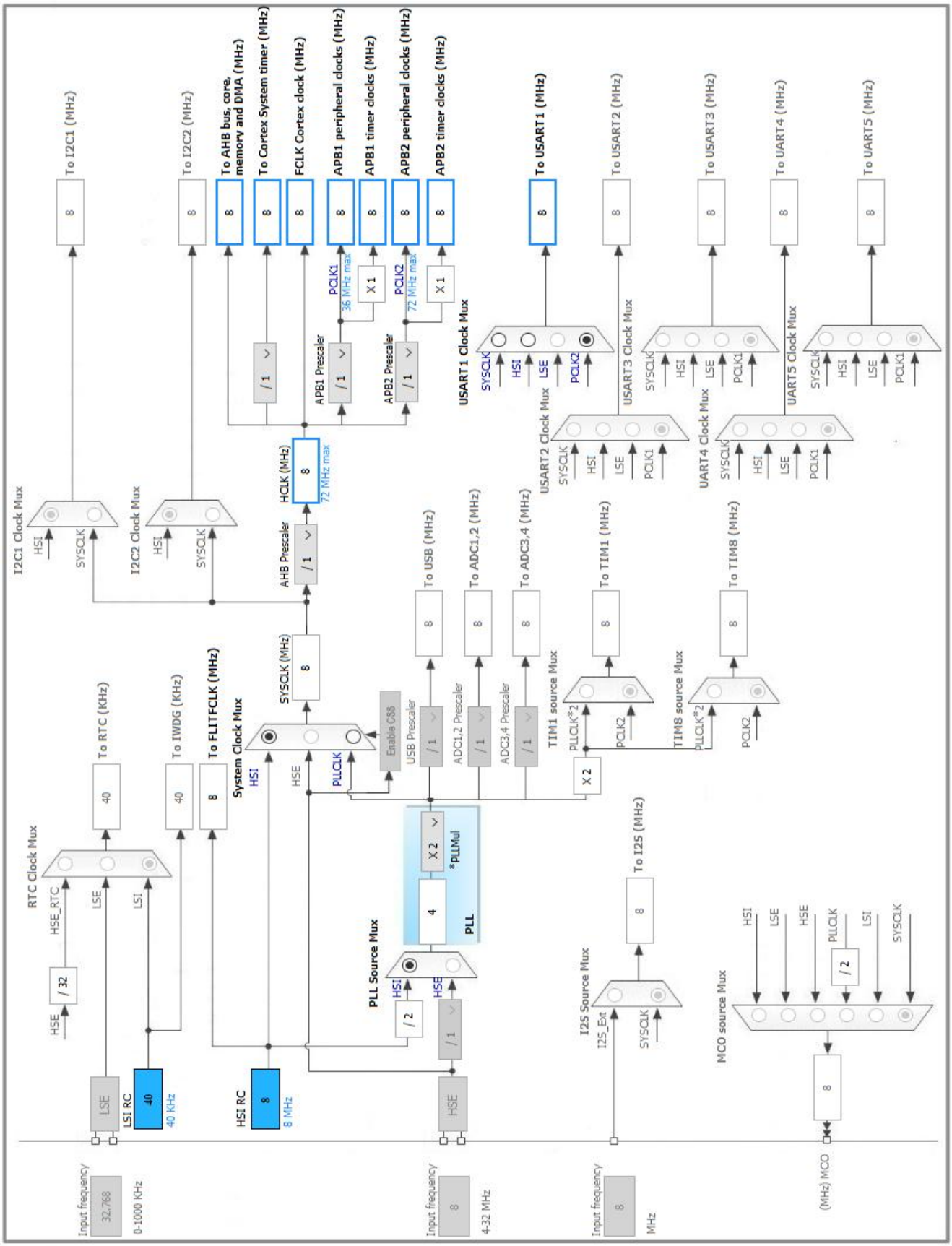


3. Pins Configuration

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
14	NRST	Reset		
20	VSSA/VREF-	Power		
21	VREF+	Power		
22	VDDA	Power		
28	VDD	Power		
33	PC4	I/O	USART1_TX	UART1_TX_PC4
34	PC5	I/O	USART1_RX	UART1_RX_PC5
39	PE8 *	I/O	GPIO_Output	LD4_PE8
40	PE9 *	I/O	GPIO_Output	LD3_PE9
41	PE10 *	I/O	GPIO_Output	LD5_PE10
42	PE11 *	I/O	GPIO_Output	LD7_PE11
43	PE12 *	I/O	GPIO_Output	LD9_PE12
44	PE13 *	I/O	GPIO_Output	LD10_PE13
45	PE14 *	I/O	GPIO_Output	LD8_PE14
46	PE15 *	I/O	GPIO_Output	LD6_PE15
49	VSS	Power		
50	VDD	Power		
74	VSS	Power		
75	VDD	Power		
94	BOOT0	Boot		
99	VSS	Power		
100	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. SYS

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
Single Sample	Disable

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 ***	UART1_TX_PC4
	PC5	USART1_RX	Alternate Function Push Pull	No pull up pull down	**High ***	UART1_RX_PC5
GPIO	PE8	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD4_PE8
	PE9	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD3_PE9
	PE10	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD5_PE10
	PE11	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD7_PE11
	PE12	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD9_PE12
	PE13	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD10_PE13
	PE14	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD8_PE14
	PE15	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD6_PE15

6.2. DMA configuration

DMA request	Stream	Direction	Priority
USART1_RX	DMA1_Channel5	Peripheral To Memory	Low

USART1_RX: DMA1_Channel5 DMA request Settings:

Mode:	**Circular ***
Peripheral Increment:	Disable
Memory Increment:	**Enable ***
Peripheral Data Width:	Byte
Memory Data Width:	Byte

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
DMA1 channel5 global interrupt	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	STM32F303
MCU	STM32F303VCTx
Datasheet	023353_Rev13

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	UART_ECHO
Project Folder	C:\Users\kb3gtn\workspace-stm32\UART_ECHO
Toolchain / IDE	SW4STM32
Firmware Package Name and Version	STM32Cube FW_F3 V1.10.0

8.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Copy only the necessary library files
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)	Yes

9. Software Pack Report