1. Description

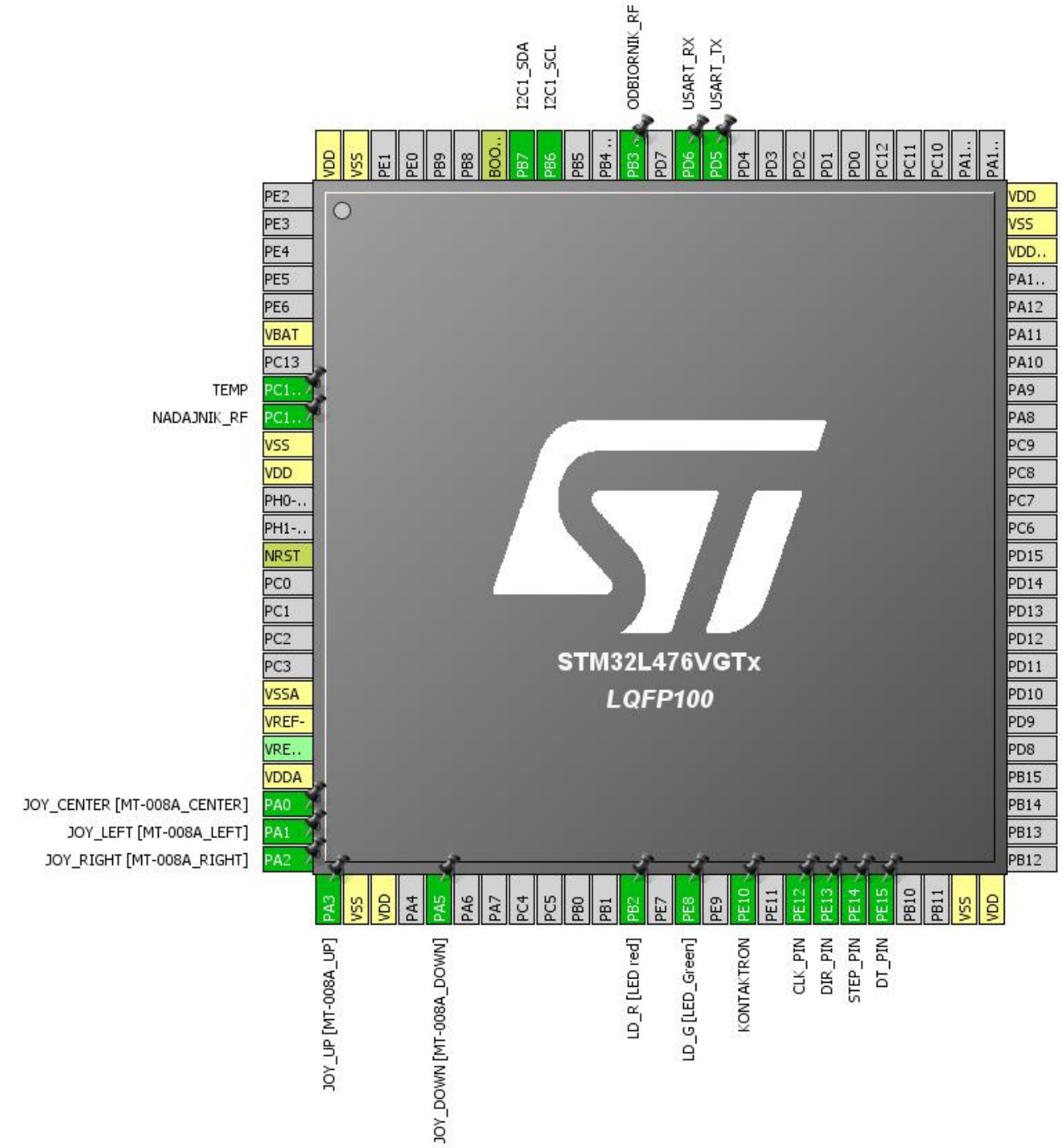
1.1. Project

Project Name	roleta
Board Name	32L476GDISCOVERY
Generated with:	STM32CubeMX 4.25.0
Date	05/15/2018

1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x6
MCU name	STM32L476VGTx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration



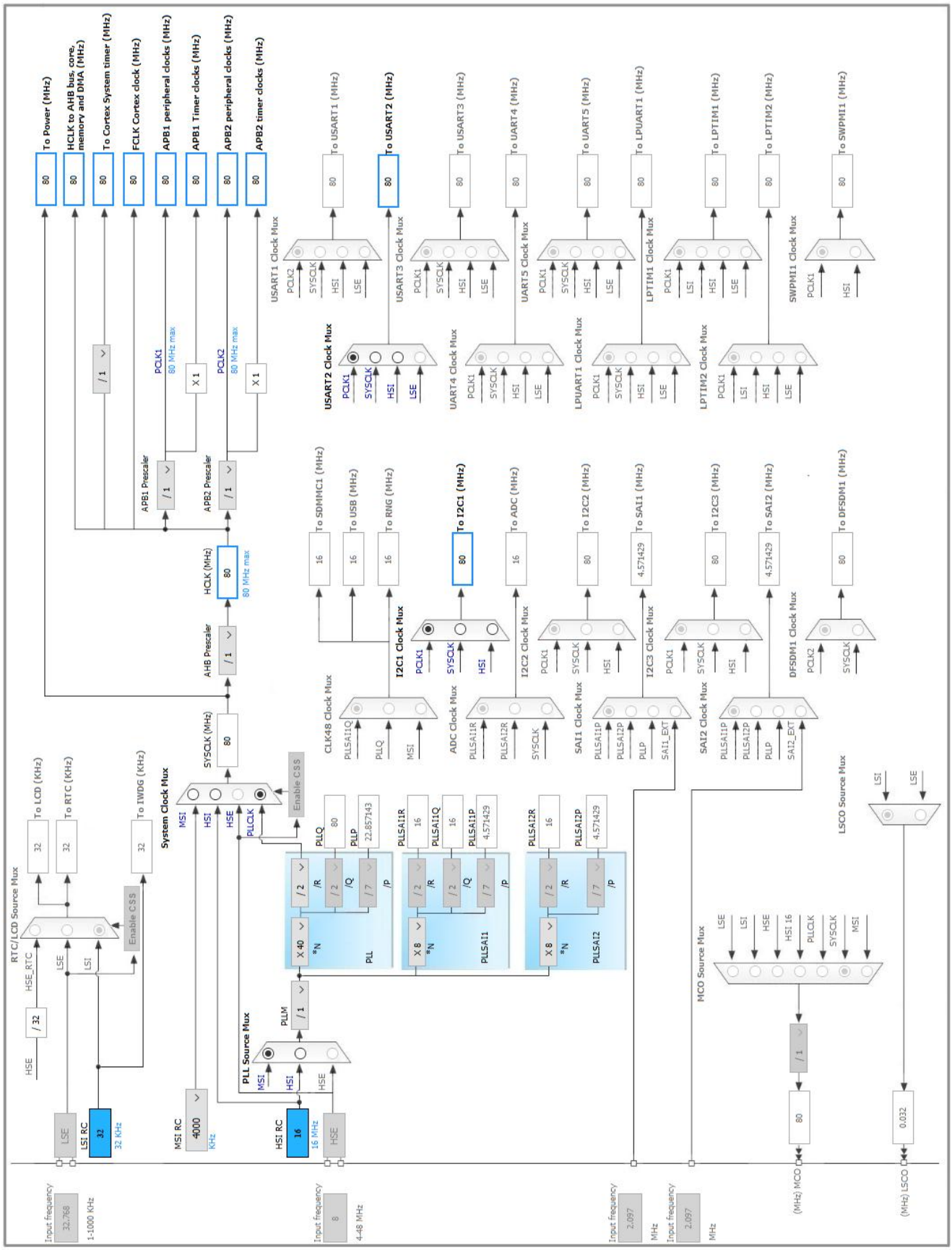
3. Pins Configuration

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
8	PC14-OSC32_IN (PC14) *	I/O	GPIO_Output	TEMP
9	PC15-OSC32_OUT (PC15) *	I/O	GPIO_Output	NADAJNIK_RF
10	VSS	Power		
11	VDD	Power		
14	NRST	Reset		
19	VSSA	Power		
20	VREF-	Power		
22	VDDA	Power		
23	PA0 *	I/O	GPIO_Input	JOY_CENTER [MT-008A_CENTER]
24	PA1 *	I/O	GPIO_Input	JOY_LEFT [MT-008A_LEFT]
25	PA2 *	I/O	GPIO_Input	JOY_RIGHT [MT-008A_RIGHT]
26	PA3 *	I/O	GPIO_Input	JOY_UP [MT-008A_UP]
27	VSS	Power		
28	VDD	Power		
30	PA5 *	I/O	GPIO_Input	JOY_DOWN [MT-008A_DOWN]
37	PB2 *	I/O	GPIO_Output	LD_R [LED red]
39	PE8 *	I/O	GPIO_Output	LD_G [LED_Green]
41	PE10	I/O	GPIO_EXTI10	KONTAKTRON
43	PE12 *	I/O	GPIO_Input	CLK_PIN
44	PE13 *	I/O	GPIO_Output	DIR_PIN
45	PE14 *	I/O	GPIO_Output	STEP_PIN
46	PE15 *	I/O	GPIO_Input	DT_PIN
49	VSS	Power		
50	VDD	Power		
73	VDDUSB	Power		
74	VSS	Power		
75	VDD	Power		
86	PD5	I/O	USART2_TX	USART_TX
87	PD6	I/O	USART2_RX	USART_RX
89	PB3 (JTDO-TRACESWO) *	I/O	GPIO_Input	ODBIORNIK_RF
92	PB6	I/O	I2C1_SCL	

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
93	PB7	I/O	I2C1_SDA	
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. I2C1

I2C: I2C

5.1.1. Parameter Settings:

Timing configuration:

I2C Speed Mode	**Fast Mode ***
I2C Speed Frequency (KHz)	400
Rise Time (ns)	0
Fall Time (ns)	0
Coefficient of Digital Filter	0
Analog Filter	Enabled
Timing	**0x00702991 ***

Slave Features:

Clock No Stretch Mode	Disabled
General Call Address Detection	Disabled
Primary Address Length selection	7-bit
Dual Address Acknowledged	Disabled
Primary slave address	0

5.2. SYS

Timebase Source: SysTick

5.3. USART2

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
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
I2C1	PB6	I2C1_SCL	Alternate Function Open Drain	Pull-up	**Very High ***	
	PB7	I2C1_SDA	Alternate Function Open Drain	Pull-up	**Very High ***	
USART2	PD5	USART2_TX	Alternate Function Push Pull	**Pull-up ***	**Very High ***	USART_TX
	PD6	USART2_RX	Alternate Function Push Pull	**Pull-up ***	**Very High ***	USART_RX
GPIO	PC14-OSC32_IN (PC14)	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	TEMP
	PC15-OSC32_OUT (PC15)	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	NADAJNIK_RF
	PA0	GPIO_Input	Input mode	**Pull-down ***	n/a	JOY_CENTER [MT-008A_CENTER]
	PA1	GPIO_Input	Input mode	**Pull-down ***	n/a	JOY_LEFT [MT-008A_LEFT]
	PA2	GPIO_Input	Input mode	**Pull-down ***	n/a	JOY_RIGHT [MT-008A_RIGHT]
	PA3	GPIO_Input	Input mode	**Pull-down ***	n/a	JOY_UP [MT-008A_UP]
	PA5	GPIO_Input	Input mode	**Pull-down ***	n/a	JOY_DOWN [MT-008A_DOWN]
	PB2	GPIO_Output	Output Push Pull	**Pull-up ***	**Very High ***	LD_R [LED red]
	PE8	GPIO_Output	Output Push Pull	**Pull-up ***	**Very High ***	LD_G [LED_Green]
	PE10	GPIO_EXTI10	**External Interrupt Mode with Rising/Falling edge**	**Pull-up ***	**n/a**	KONTAKTRON
	PE12	GPIO_Input	Input mode	No pull-up and no pull-down	**n/a**	CLK_PIN
	PE13	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	DIR_PIN
	PE14	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	STEP_PIN
	PE15	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	DT_PIN

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PB3 (JTDO-TRACESWO)	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	ODBIORNIK_RF

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
USART2 global interrupt	true	0	0
EXTI line[15:10] interrupts	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		
I2C1 event interrupt	unused		
I2C1 error interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x6
MCU	STM32L476VGTx
Datasheet	025976_Rev4

7.2. Parameter Selection

Temperature	25
Vdd	null

8. Software Project

8.1. Project Settings

Name	Value
Project Name	roleta
Project Folder	D:\projekty stm32cubemx\roleta
Toolchain / IDE	TrueSTUDIO
Firmware Package Name and Version	STM32Cube FW_L4 V1.11.0

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	Yes
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	No
Set all free pins as analog (to optimize the power consumption)	No

9. Software Pack Report