



## 1. Description

### 1.1. Project

Project Name	project
Board Name	custom
Generated with:	STM32CubeMX 6.5.0
Date	05/04/2024

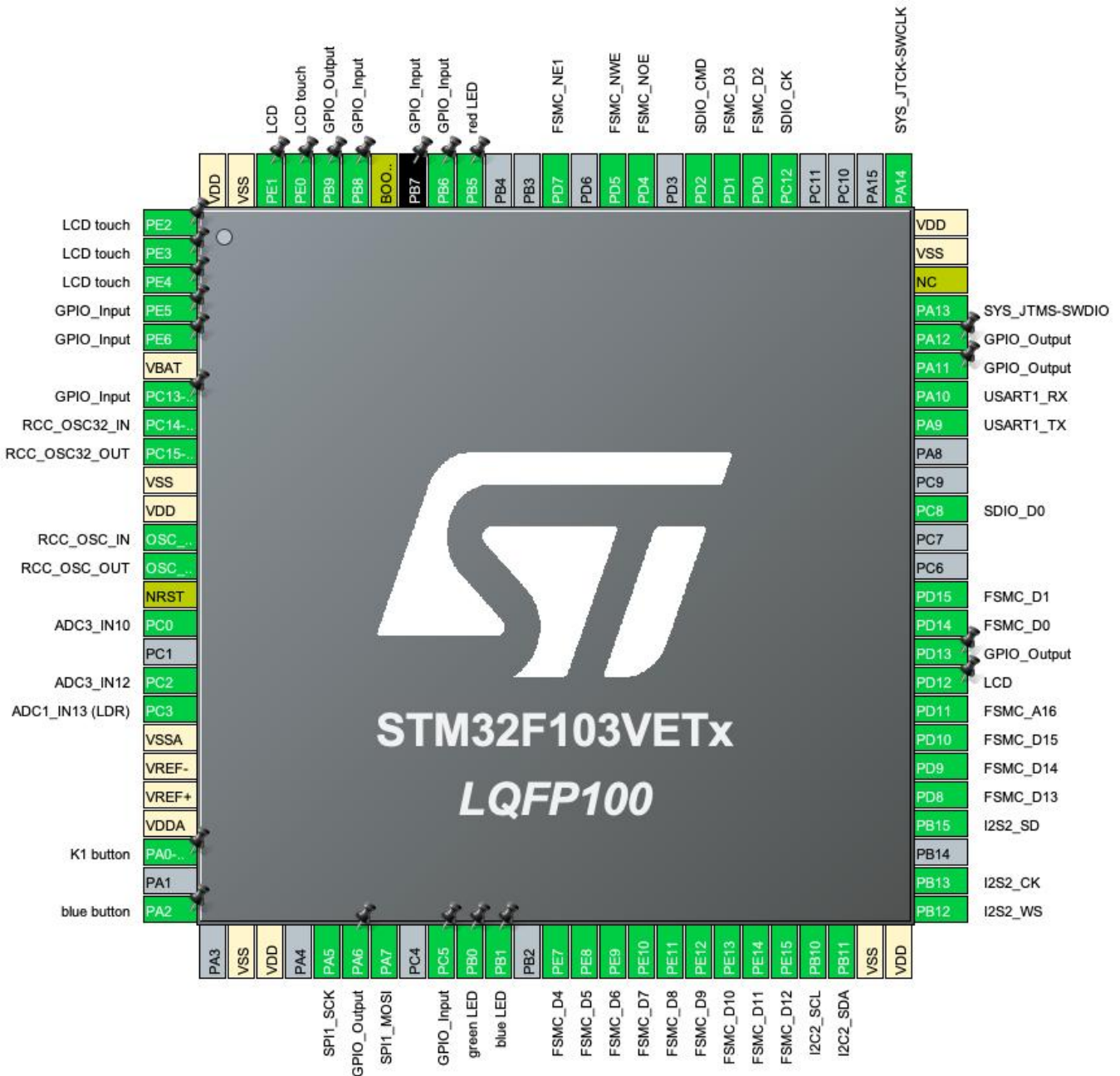
### 1.2. MCU

MCU Series	STM32F1
MCU Line	STM32F103
MCU name	STM32F103VETx
MCU Package	LQFP100
MCU Pin number	100

### 1.3. Core(s) information

Core(s)	Arm Cortex-M3
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## 2. Pinout Configuration



### 3. Pins Configuration

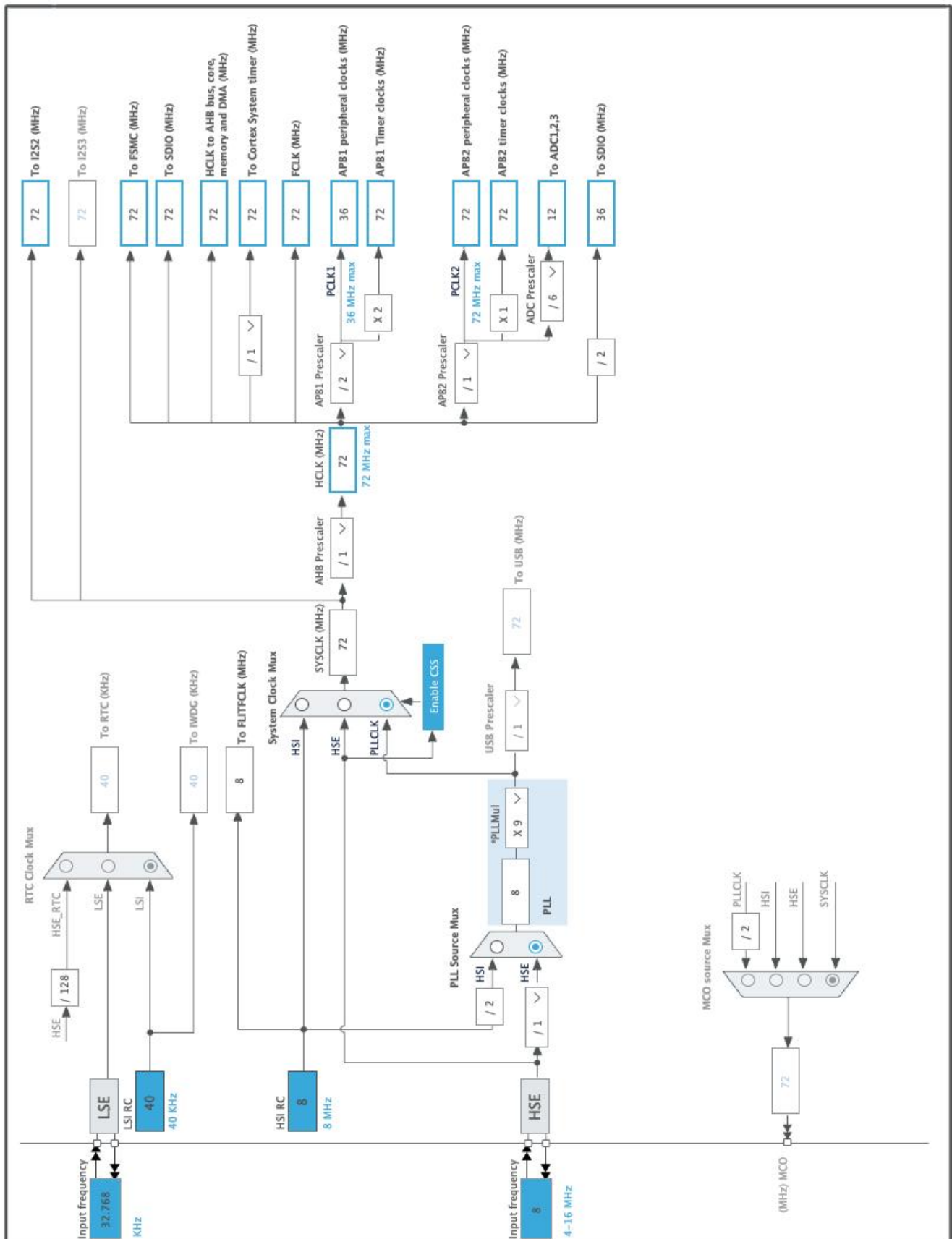
Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	PE2 *	I/O	GPIO_Output	LCD touch
2	PE3 *	I/O	GPIO_Input	LCD touch
3	PE4	I/O	GPIO_EXTI4	LCD touch
4	PE5 *	I/O	GPIO_Input	
5	PE6 *	I/O	GPIO_Input	
6	VBAT	Power		
7	PC13-TAMPER-RTC *	I/O	GPIO_Input	
8	PC14-OSC32_IN	I/O	RCC_OSC32_IN	
9	PC15-OSC32_OUT	I/O	RCC_OSC32_OUT	
10	VSS	Power		
11	VDD	Power		
12	OSC_IN	MonolO	RCC_OSC_IN	
13	OSC_OUT	MonolO	RCC_OSC_OUT	
14	NRST	Reset		
15	PC0	I/O	ADC3_IN10	
17	PC2	I/O	ADC3_IN12	
18	PC3	I/O	ADC1_IN13	ADC1_IN13 (LDR)
19	VSSA	Power		
20	VREF-	Power		
21	VREF+	Power		
22	VDDA	Power		
23	PA0-WKUP	I/O	GPIO_EXTI0	K1 button
25	PA2 *	I/O	GPIO_Input	blue button
27	VSS	Power		
28	VDD	Power		
30	PA5	I/O	SPI1_SCK	
31	PA6 *	I/O	GPIO_Output	
32	PA7	I/O	SPI1_MOSI	
34	PC5 *	I/O	GPIO_Input	
35	PB0 *	I/O	GPIO_Output	green LED
36	PB1 *	I/O	GPIO_Output	blue LED
38	PE7	I/O	FSMC_D4	
39	PE8	I/O	FSMC_D5	
40	PE9	I/O	FSMC_D6	
41	PE10	I/O	FSMC_D7	
42	PE11	I/O	FSMC_D8	

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
43	PE12	I/O	FSMC_D9	
44	PE13	I/O	FSMC_D10	
45	PE14	I/O	FSMC_D11	
46	PE15	I/O	FSMC_D12	
47	PB10	I/O	I2C2_SCL	
48	PB11	I/O	I2C2_SDA	
49	VSS	Power		
50	VDD	Power		
51	PB12	I/O	I2S2_WS	
52	PB13	I/O	I2S2_CK	
54	PB15	I/O	I2S2_SD	
55	PD8	I/O	FSMC_D13	
56	PD9	I/O	FSMC_D14	
57	PD10	I/O	FSMC_D15	
58	PD11	I/O	FSMC_A16	
59	PD12 *	I/O	GPIO_Output	LCD
60	PD13 *	I/O	GPIO_Output	
61	PD14	I/O	FSMC_D0	
62	PD15	I/O	FSMC_D1	
65	PC8	I/O	SDIO_D0	
68	PA9	I/O	USART1_TX	
69	PA10	I/O	USART1_RX	
70	PA11 *	I/O	GPIO_Output	
71	PA12 *	I/O	GPIO_Output	
72	PA13	I/O	SYS_JTMS-SWDIO	
73	NC	NC		
74	VSS	Power		
75	VDD	Power		
76	PA14	I/O	SYS_JTCK-SWCLK	
80	PC12	I/O	SDIO_CK	
81	PD0	I/O	FSMC_D2	
82	PD1	I/O	FSMC_D3	
83	PD2	I/O	SDIO_CMD	
85	PD4	I/O	FSMC_NOE	
86	PD5	I/O	FSMC_NWE	
88	PD7	I/O	FSMC_NE1	
91	PB5 *	I/O	GPIO_Output	red LED
92	PB6 *	I/O	GPIO_Input	
93	PB7 *	I/O	GPIO_Input	

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
94	BOOT0	Boot		
95	PB8 *	I/O	GPIO_Input	
96	PB9 *	I/O	GPIO_Output	
97	PE0 *	I/O	GPIO_Output	LCD touch
98	PE1 *	I/O	GPIO_Output	LCD
99	VSS	Power		
100	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	project
Project Folder	/Users/pinkylo/STM32CubeIDE/workspace_1.9.0/project
Toolchain / IDE	STM32CubeIDE
Firmware Package Name and Version	STM32Cube FW_F1 V1.8.4
Application Structure	Advanced
Generate Under Root	Yes
Do not generate the main()	No
Minimum Heap Size	0x200
Minimum Stack Size	0x400

### 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	No
Backup previously generated files when re-generating	No
Keep User Code when re-generating	Yes
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No
Enable Full Assert	No

### 5.3. Advanced Settings - Generated Function Calls

Rank	Function Name	Peripheral Instance Name
1	SystemClock_Config	RCC
2	MX_GPIO_Init	GPIO
3	MX_FSMC_Init	FSMC
4	MX_ADC1_Init	ADC1
5	MX_TIM3_Init	TIM3
6	MX_TIM1_Init	TIM1
7	MX_I2S2_Init	I2S2
8	MX_SDIO_SD_Init	SDIO
9	MX_DMA_Init	DMA
10	MX_ADC3_Init	ADC3
11	MX_FATFS_Init	FATFS



Rank	Function Name	Peripheral Instance Name
12	MX_SPI1_Init	SPI1
13	MX_USART1_UART_Init	USART1
14	MX_TIM2_Init	TIM2
15	MX_I2C2_Init	I2C2

## 6. Power Consumption Calculator report

### 6.1. Microcontroller Selection

Series	STM32F1
Line	STM32F103
MCU	STM32F103VETx
Datasheet	DS5792_Rev12

### 6.2. Parameter Selection

Temperature	25
Vdd	3.3

### 6.3. Battery Selection

Battery	Li-SOCL2(A3400)
Capacity	3400.0 mAh
Self Discharge	0.08 %/month
Nominal Voltage	3.6 V
Max Cont Current	100.0 mA
Max Pulse Current	200.0 mA
Cells in series	1
Cells in parallel	1

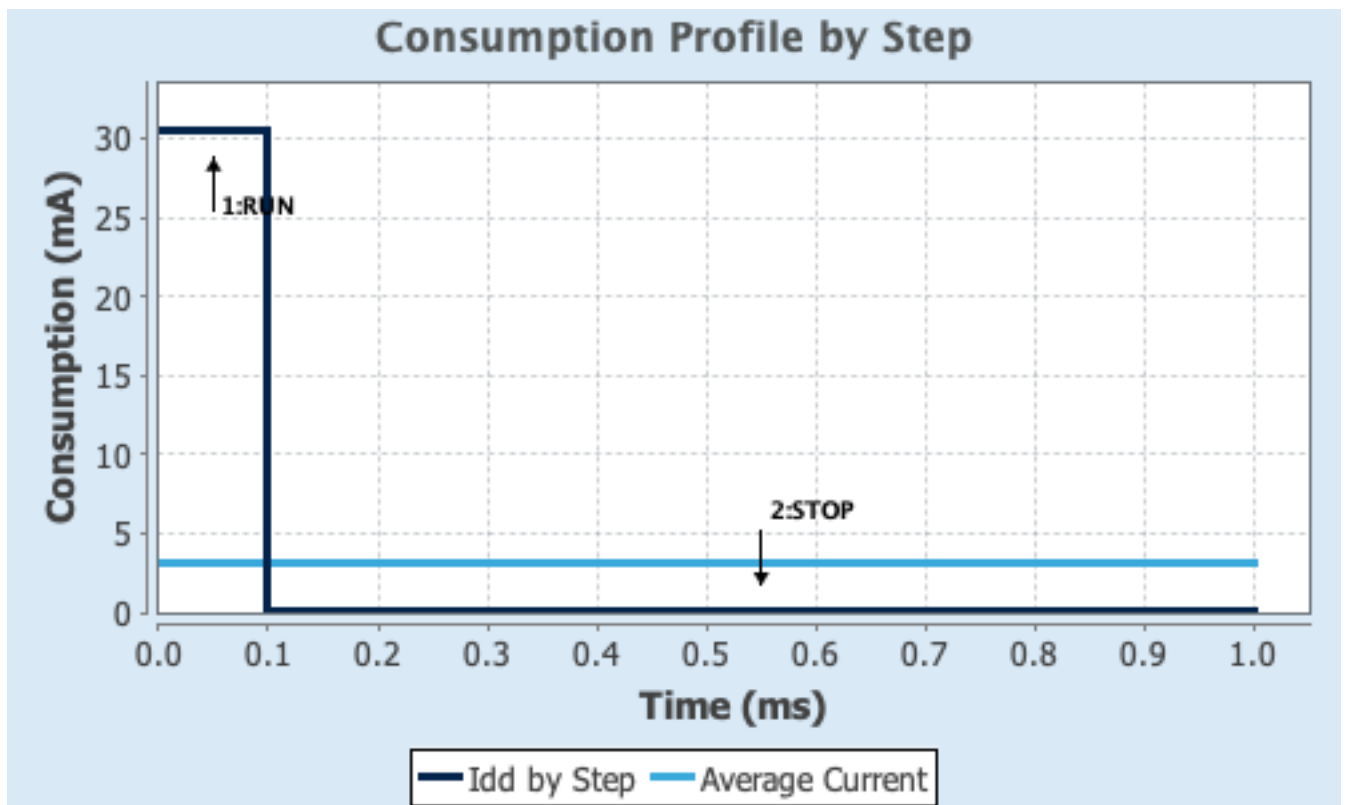
#### 6.4. Sequence

<b>Step</b>	Step1	Step2
<b>Mode</b>	RUN	STOP
<b>Vdd</b>	3.3	3.3
<b>Voltage Source</b>	Battery	Battery
<b>Range</b>	No Scale	No Scale
<b>Fetch Type</b>	FLASH	n/a
<b>CPU Frequency</b>	72 MHz	0 Hz
<b>Clock Configuration</b>	HSE PLL	Regulator LP
<b>Clock Source Frequency</b>	8 MHz	0 Hz
<b>Peripherals</b>		
<b>Additional Cons.</b>	0 mA	0 mA
<b>Average Current</b>	30.5 mA	25 $\mu$ A
<b>Duration</b>	0.1 ms	0.9 ms
<b>DMIPS</b>	90.0	0.0
<b>Ta Max</b>	100.37	105
<b>Category</b>	In DS Table	In DS Table

#### 6.5. Results

Sequence Time	1 ms	Average Current	3.07 mA
Battery Life	1 month, 15 days, 15 hours	Average DMIPS	61.0 DMIPS

#### 6.6. Chart



## 7. Peripherals and Middlewares Configuration

### 7.1. ADC1

mode: IN13

#### 7.1.1. Parameter Settings:

##### ADCs\_Common\_Settings:

Mode Independent mode

##### ADC\_Settings:

Data Alignment Right alignment

Scan Conversion Mode Disabled

Continuous Conversion Mode Disabled

Discontinuous Conversion Mode Disabled

##### ADC\_Regular\_ConversionMode:

Enable Regular Conversions Enable

Number Of Conversion 1

External Trigger Conversion Source Regular Conversion launched by software

Rank 1

Channel Channel 13

Sampling Time 1.5 Cycles

##### ADC\_Injected\_ConversionMode:

Enable Injected Conversions Disable

##### WatchDog:

Enable Analog WatchDog Mode false

### 7.2. ADC3

mode: IN10

mode: IN12

#### 7.2.1. Parameter Settings:

##### ADC\_Settings:

Data Alignment Right alignment

Scan Conversion Mode Enabled

Continuous Conversion Mode **Enabled \***

Discontinuous Conversion Mode Disabled

##### ADC\_Regular\_ConversionMode:

Enable Regular Conversions Enable

Number Of Conversion **2 \***

External Trigger Conversion Source	Regular Conversion launched by software
<u>Rank</u>	1
Channel	Channel 10
Sampling Time	<b>239.5 Cycles *</b>
<u>Rank</u>	<b>2 *</b>
Channel	<b>Channel 12 *</b>
Sampling Time	<b>239.5 Cycles *</b>
<b>ADC_Injected_ConversionMode:</b>	
Enable Injected Conversions	Disable
<b>WatchDog:</b>	
Enable Analog WatchDog Mode	false

### 7.3. FSMC

NOR Flash/PSRAM/SRAM/ROM/LCD 1

**Chip Select: set**

**Memory type: LCD Interface**

**LCD Register Select: A16**

**Data: 16 bits**

7.3.1. NOR/PSRAM 1:

#### **NOR/PSRAM control:**

Memory type	LCD Interface
Bank	Bank 1 NOR/PSRAM 1
Write operation	Enabled
Extended mode	Disabled

#### **NOR/PSRAM timing:**

Address setup time in HCLK clock cycles	15
Data setup time in HCLK clock cycles	255
Bus turn around time in HCLK clock cycles	15

### 7.4. I2C2

**I2C: I2C**

7.4.1. Parameter Settings:

#### **Master Features:**

I2C Speed Mode	<b>Fast Mode *</b>
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I2C Clock Speed (Hz)	400000
Fast Mode Duty Cycle	Duty cycle Tlow/Thigh = 2

**Slave Features:**

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

## 7.5. I2S2

### Mode: Half-Duplex Transmit Only Master

#### 7.5.1. Parameter Settings:

**Generic Parameters:**

Transmission Mode	Mode Master Transmit
Communication Standard	I2S Philips
Data and Frame Format	16 Bits Data on 16 Bits Frame
Selected Audio Frequency	<b>48 KHz *</b>
Real Audio Frequency	<b>47.872 KHz *</b>
Error between Selected and Real	<b>-0.26 % *</b>

**Clock Parameters:**

Clock Polarity	Low
----------------	-----

## 7.6. RCC

### High Speed Clock (HSE): Crystal/Ceramic Resonator

### Low Speed Clock (LSE) : Crystal/Ceramic Resonator

#### 7.6.1. Parameter Settings:

**System Parameters:**

VDD voltage (V)	3.3
Prefetch Buffer	Enabled
Flash Latency(WS)	2 WS (3 CPU cycle)

**RCC Parameters:**

HSI Calibration Value	16
HSE Startup Timeout Value (ms)	100
LSE Startup Timeout Value (ms)	5000

## 7.7. SDIO

### Mode: SD 1 bit

#### 7.7.1. Parameter Settings:

##### SDIO parameters:

Clock transition on which the bit capture is made

Rising transition

SDIO Clock divider bypass

Disable

SDIO Clock output enable when the bus is idle

Disable the power save for the clock

SDIO hardware flow control

**The hardware control flow is enabled \***

SDIOCLK clock divide factor

**6 \***

## 7.8. SPI1

### Mode: Transmit Only Master

#### 7.8.1. Parameter Settings:

##### Basic Parameters:

Frame Format

Motorola

Data Size

8 Bits

First Bit

MSB First

##### Clock Parameters:

Prescaler (for Baud Rate)

**8 \***

Baud Rate

**9.0 MBits/s \***

Clock Polarity (CPOL)

Low

Clock Phase (CPHA)

1 Edge

##### Advanced Parameters:

CRC Calculation

Disabled

NSS Signal Type

Software

## 7.9. SYS

### Debug: Serial Wire

#### Timebase Source: SysTick



## 7.10. TIM1

**Clock Source : Internal Clock**

### 7.10.1. Parameter Settings:

#### Counter Settings:

Prescaler (PSC - 16 bits value)	<b>72-1 *</b>
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value )	<b>0xffff-1 *</b>
Internal Clock Division (CKD)	No Division
Repetition Counter (RCR - 8 bits value)	0
auto-reload preload	Disable

#### Trigger Output (TRGO) Parameters:

Master/Slave Mode (MSM bit)	Disable (Trigger input effect not delayed)
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

## 7.11. TIM2

**Clock Source : Internal Clock**

### 7.11.1. Parameter Settings:

#### Counter Settings:

Prescaler (PSC - 16 bits value)	<b>71 *</b>
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value )	65535
Internal Clock Division (CKD)	No Division
auto-reload preload	Disable

#### Trigger Output (TRGO) Parameters:

Master/Slave Mode (MSM bit)	Disable (Trigger input effect not delayed)
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

## 7.12. TIM3

**Clock Source : Internal Clock**

### 7.12.1. Parameter Settings:

#### Counter Settings:

Prescaler (PSC - 16 bits value)	<b>7199 *</b>
Counter Mode	Up

Counter Period (AutoReload Register - 16 bits value )	<b>10000 *</b>
Internal Clock Division (CKD)	No Division
auto-reload preload	Disable
<b>Trigger Output (TRGO) Parameters:</b>	
Master/Slave Mode (MSM bit)	Disable (Trigger input effect not delayed)
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

## 7.13. USART1

### Mode: Asynchronous

#### 7.13.1. Parameter Settings:

##### Basic Parameters:

Baud Rate	<b>9600 *</b>
Word Length	8 Bits (including Parity)
Parity	None
Stop Bits	1

##### Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples

## 7.14. FATFS

### mode: SD Card

#### 7.14.1. Set Defines:

##### Version:

FATFS version	R0.11
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##### Function Parameters:

FS_READONLY (Read-only mode)	Disabled
FS_MINIMIZE (Minimization level)	Disabled
USE_STRFUNC (String functions)	Enabled with LF -> CRLF conversion
USE_FIND (Find functions)	Disabled
USE_MKFS (Make filesystem function)	Enabled
USE_FASTSEEK (Fast seek function)	Enabled
USE_LABEL (Volume label functions)	Disabled
USE_FORWARD (Forward function)	Disabled

##### Locale and Namespace Parameters:

CODE_PAGE (Code page on target)	Multilingual Latin 1 (OEM)
---------------------------------	----------------------------

USE_LFN (Use Long Filename)	Disabled
MAX_LFN (Max Long Filename)	255
LFN_UNICODE (Enable Unicode)	ANSI/OEM
STRF_ENCODE (Character encoding)	UTF-8
FS_RPATH (Relative Path)	Disabled

#### Physical Drive Parameters:

VOLUMES (Logical drives)	1
MAX_SS (Maximum Sector Size)	<b>4096 *</b>
MIN_SS (Minimum Sector Size)	512
MULTI_PARTITION (Volume partitions feature)	Disabled
USE_TRIM (Erase feature)	Disabled
FS_NOFSINFO (Force full FAT scan)	0

#### System Parameters:

FS_TINY (Tiny mode)	Disabled
FS_NORTC (Timestamp feature)	Dynamic timestamp
WORD_ACCESS (Platform dependent access option)	Byte access
FS_REENTRANT (Re-Entrancy)	Disabled
FS_TIMEOUT (Timeout ticks)	1000
FS_LOCK (Number of files opened simultaneously)	2

### 7.14.2. Advanced Settings:

#### SDIO/SDMMC:

SDIO instance	SDIO
BSP code for SD	Generic

\* User modified value

## 8. System Configuration

### 8.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
ADC1	PC3	ADC1_IN13	Analog mode	n/a	n/a	ADC1_IN13 (LDR)
ADC3	PC0	ADC3_IN10	Analog mode	n/a	n/a	
	PC2	ADC3_IN12	Analog mode	n/a	n/a	
FSMC	PE7	FSMC_D4	Alternate Function Push Pull	n/a	High	
	PE8	FSMC_D5	Alternate Function Push Pull	n/a	High	
	PE9	FSMC_D6	Alternate Function Push Pull	n/a	High	
	PE10	FSMC_D7	Alternate Function Push Pull	n/a	High	
	PE11	FSMC_D8	Alternate Function Push Pull	n/a	High	
	PE12	FSMC_D9	Alternate Function Push Pull	n/a	High	
	PE13	FSMC_D10	Alternate Function Push Pull	n/a	High	
	PE14	FSMC_D11	Alternate Function Push Pull	n/a	High	
	PE15	FSMC_D12	Alternate Function Push Pull	n/a	High	
	PD8	FSMC_D13	Alternate Function Push Pull	n/a	High	
	PD9	FSMC_D14	Alternate Function Push Pull	n/a	High	
	PD10	FSMC_D15	Alternate Function Push Pull	n/a	High	
	PD11	FSMC_A16	Alternate Function Push Pull	n/a	High	
	PD14	FSMC_D0	Alternate Function Push Pull	n/a	High	
	PD15	FSMC_D1	Alternate Function Push Pull	n/a	High	
	PD0	FSMC_D2	Alternate Function Push Pull	n/a	High	
	PD1	FSMC_D3	Alternate Function Push Pull	n/a	High	
	PD4	FSMC_NOE	Alternate Function Push Pull	n/a	High	
	PD5	FSMC_NWE	Alternate Function Push Pull	n/a	High	
	PD7	FSMC_NE1	Alternate Function Push Pull	n/a	High	
I2C2	PB10	I2C2_SCL	Alternate Function Open Drain	n/a	High *	
	PB11	I2C2_SDA	Alternate Function Open Drain	n/a	High *	
I2S2	PB12	I2S2_WS	Alternate Function Push Pull	n/a	Low	
	PB13	I2S2_CK	Alternate Function Push Pull	n/a	Low	
	PB15	I2S2_SD	Alternate Function Push Pull	n/a	Low	
RCC	PC14-OSC32_IN	RCC_OSC32_IN	n/a	n/a	n/a	
	PC15-OSC32_OUT	RCC_OSC32_OUT	n/a	n/a	n/a	
	OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
SDIO	PC8	SDIO_D0	Alternate Function Push Pull	n/a	High	
	PC12	SDIO_CK	Alternate Function Push Pull	n/a	High	
	PD2	SDIO_CMD	Alternate Function Push Pull	n/a	High	
SPI1	PA5	SPI1_SCK	Alternate Function Push Pull	n/a	High *	
	PA7	SPI1_MOSI	Alternate Function Push Pull	n/a	High *	
SYS	PA13	SYS_JTMS-SWDIO	n/a	n/a	n/a	
	PA14	SYS_JTCK-SWCLK	n/a	n/a	n/a	
USART1	PA9	USART1_TX	Alternate Function Push Pull	n/a	High *	
	PA10	USART1_RX	Input mode	No pull-up and no pull-down	n/a	
GPIO	PE2	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	LCD touch
	PE3	GPIO_Input	Input mode	Pull-up *	n/a	LCD touch
	PE4	GPIO_EXTI4	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	LCD touch
	PE5	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	
	PE6	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	
	PC13-TAMPER-RTC	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	
	PA0-WKUP	GPIO_EXTI0	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	K1 button
	PA2	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	blue button
	PA6	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	
	PC5	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	
	PB0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	green LED
	PB1	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	blue LED
	PD12	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	LCD
	PD13	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	
	PA11	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	
	PA12	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	
	PB5	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	red LED
	PB6	GPIO_Input	Input mode	Pull-down *	n/a	
	PB7	GPIO_Input	Input mode	Pull-down *	n/a	
	PB8	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	
	PB9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	
	PE0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	High *	LCD touch

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PE1	GPIO_Output	Output Push Pull	No pull-up and no pull-down	<b>High *</b>	LCD

## 8.2. DMA configuration

DMA request	Stream	Direction	Priority
ADC3	DMA2_Channel5	Peripheral To Memory	Low
SPI2_TX	DMA1_Channel5	Memory To Peripheral	Low
SPI1_TX	DMA1_Channel3	Memory To Peripheral	Low

### ADC3: DMA2\_Channel5 DMA request Settings:

Mode: **Circular \***  
 Peripheral Increment: Disable  
 Memory Increment: **Enable \***  
 Peripheral Data Width: **Word \***  
 Memory Data Width: **Word \***

### SPI2\_TX: DMA1\_Channel5 DMA request Settings:

Mode: **Circular \***  
 Peripheral Increment: Disable  
 Memory Increment: **Enable \***  
 Peripheral Data Width: **Half Word \***  
 Memory Data Width: **Half Word \***

### SPI1\_TX: DMA1\_Channel3 DMA request Settings:

Mode: Normal  
 Peripheral Increment: Disable  
 Memory Increment: **Enable \***  
 Peripheral Data Width: Byte  
 Memory Data Width: Byte

### 8.3. NVIC configuration

#### 8.3.1. NVIC

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	15	0
EXTI line0 interrupt	true	0	0
EXTI line4 interrupt	true	0	0
DMA1 channel3 global interrupt	true	0	0
DMA1 channel5 global interrupt	true	0	0
TIM3 global interrupt	true	1	0
DMA2 channel4 and channel5 global interrupts	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
ADC1 and ADC2 global interrupts	unused		
TIM1 break interrupt	unused		
TIM1 update interrupt	unused		
TIM1 trigger and commutation interrupts	unused		
TIM1 capture compare interrupt	unused		
TIM2 global interrupt	unused		
I2C2 event interrupt	unused		
I2C2 error interrupt	unused		
SPI1 global interrupt	unused		
SPI2 global interrupt	unused		
USART1 global interrupt	unused		
ADC3 global interrupt	unused		
SDIO global interrupt	unused		

#### 8.3.2. NVIC Code generation

Enabled interrupt Table	Select for init sequence ordering	Generate IRQ handler	Call HAL handler
Non maskable interrupt	false	true	false
Hard fault interrupt	false	true	false



Enabled interrupt Table	Select for init sequence ordering	Generate IRQ handler	Call HAL handler
Memory management fault	false	true	false
Prefetch fault, memory access fault	false	true	false
Undefined instruction or illegal state	false	true	false
System service call via SWI instruction	false	true	false
Debug monitor	false	true	false
Pendable request for system service	false	true	false
System tick timer	false	true	true
EXTI line0 interrupt	false	true	true
EXTI line4 interrupt	false	true	true
DMA1 channel3 global interrupt	false	true	true
DMA1 channel5 global interrupt	false	true	true
TIM3 global interrupt	false	true	true
DMA2 channel4 and channel5 global interrupts	false	true	true

\* User modified value

## 9. System Views

### 9.1. Category view

#### 9.1.1. Current

Middleware					
FATFS ⚠					
System Core	Analog	Timers	Connectivity	Multimedia	Computing
DMA ✓	ADC1 ✓	TIM1 ✓	FSMC ✓	I2S2 ✓	
GPIO ✓	ADC3 ✓	TIM2 ✓	I2C2 ✓		
NVIC ✓		TIM3 ✓	SDIO ✓		
RCC ✓			SPI1 ✓		
SYS ✓			USART1 ✓		

## 10. Docs & Resources

Type	Link
BSDL files	<a href="https://www.st.com/resource/en/bsdl_model/stm32f1_bsd1.zip">https://www.st.com/resource/en/bsdl_model/stm32f1_bsd1.zip</a>
IBIS models	<a href="https://www.st.com/resource/en/ibis_model/stm32ibis.zip">https://www.st.com/resource/en/ibis_model/stm32ibis.zip</a>
System View Description	<a href="https://www.st.com/resource/en/svd/stm32f1_svd.zip">https://www.st.com/resource/en/svd/stm32f1_svd.zip</a>
Presentations	<a href="https://www.st.com/resource/en/product_presentation/stm32-stm8_embedded_software_solutions.pdf">https://www.st.com/resource/en/product_presentation/stm32-stm8_embedded_software_solutions.pdf</a>
Presentations	<a href="https://www.st.com/resource/en/product_presentation/stm32_eval_tools_portfolio.pdf">https://www.st.com/resource/en/product_presentation/stm32_eval_tools_portfolio.pdf</a>
Presentations	<a href="https://www.st.com/resource/en/product_presentation/stm32_stm8_functional-safety-packages.pdf">https://www.st.com/resource/en/product_presentation/stm32_stm8_functional-safety-packages.pdf</a>
Presentations	<a href="https://www.st.com/resource/en/product_presentation/stm32-stm8_software_development_tools.pdf">https://www.st.com/resource/en/product_presentation/stm32-stm8_software_development_tools.pdf</a>
Presentations	<a href="https://www.st.com/resource/en/product_presentation/microcontrollers-stm32-family-overview.pdf">https://www.st.com/resource/en/product_presentation/microcontrollers-stm32-family-overview.pdf</a>
Brochures	<a href="https://www.st.com/resource/en/brochure/products-and-solutions-for-plcs-and-smart-i-os.pdf">https://www.st.com/resource/en/brochure/products-and-solutions-for-plcs-and-smart-i-os.pdf</a>
Flyers	<a href="https://www.st.com/resource/en/flyer/flstm32nucleo.pdf">https://www.st.com/resource/en/flyer/flstm32nucleo.pdf</a>
Flyers	<a href="https://www.st.com/resource/en/flyer/flstmcsuite.pdf">https://www.st.com/resource/en/flyer/flstmcsuite.pdf</a>
Flyers	<a href="https://www.st.com/resource/en/flyer/fldpstpfc11120.pdf">https://www.st.com/resource/en/flyer/fldpstpfc11120.pdf</a>
Product Certifications	<a href="https://www.st.com/resource/en/certification_document/1239988349.pdf">https://www.st.com/resource/en/certification_document/1239988349.pdf</a>
Product Certifications	<a href="https://www.st.com/resource/en/certification_document/stm32_authentication_can.pdf">https://www.st.com/resource/en/certification_document/stm32_authentication_can.pdf</a>
Application Notes	<a href="https://www.st.com/resource/en/application_note/an1181-electrostatic-discharge-sensitivity-measurement-stmicroelectronics.pdf">https://www.st.com/resource/en/application_note/an1181-electrostatic-discharge-sensitivity-measurement-stmicroelectronics.pdf</a>
Application Notes	<a href="https://www.st.com/resource/en/application_note/an1709-emc-design-guide-for-stm8-stm32-and-legacy-mcus-stmicroelectronics.pdf">https://www.st.com/resource/en/application_note/an1709-emc-design-guide-for-stm8-stm32-and-legacy-mcus-stmicroelectronics.pdf</a>
Application Notes	<a href="https://www.st.com/resource/en/application_note/an2586-getting-started-with-stm32f10xxx-hardware-development-stmicroelectronics.pdf">https://www.st.com/resource/en/application_note/an2586-getting-started-with-stm32f10xxx-hardware-development-stmicroelectronics.pdf</a>

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