1. Description

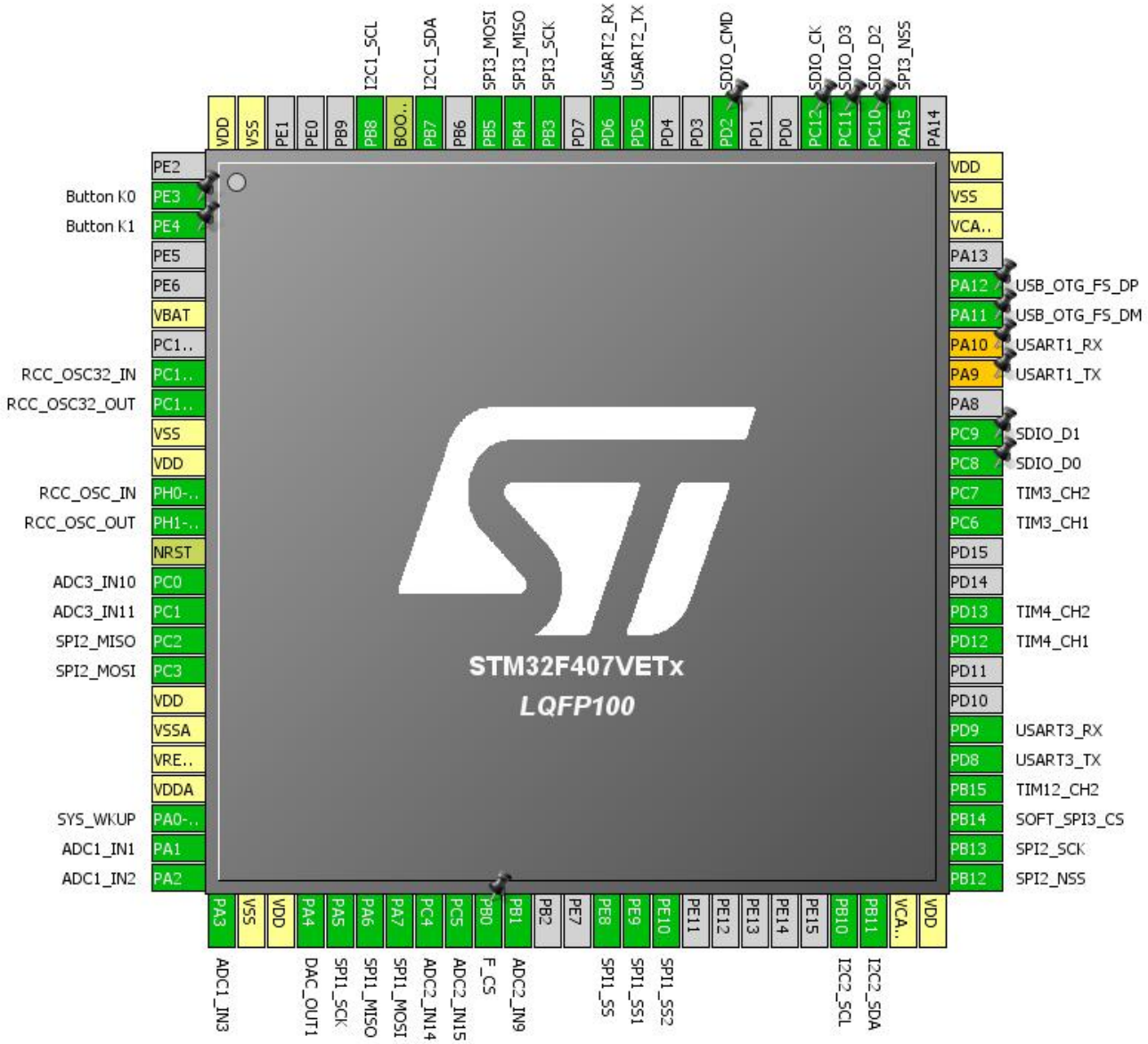
1.1. Project

Project Name	f4-1
Board Name	f4-1
Generated with:	STM32CubeMX 4.20.0
Date	04/10/2017

1.2. MCU

MCU Series	STM32F4
MCU Line	STM32F407/417
MCU name	STM32F407VETx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration



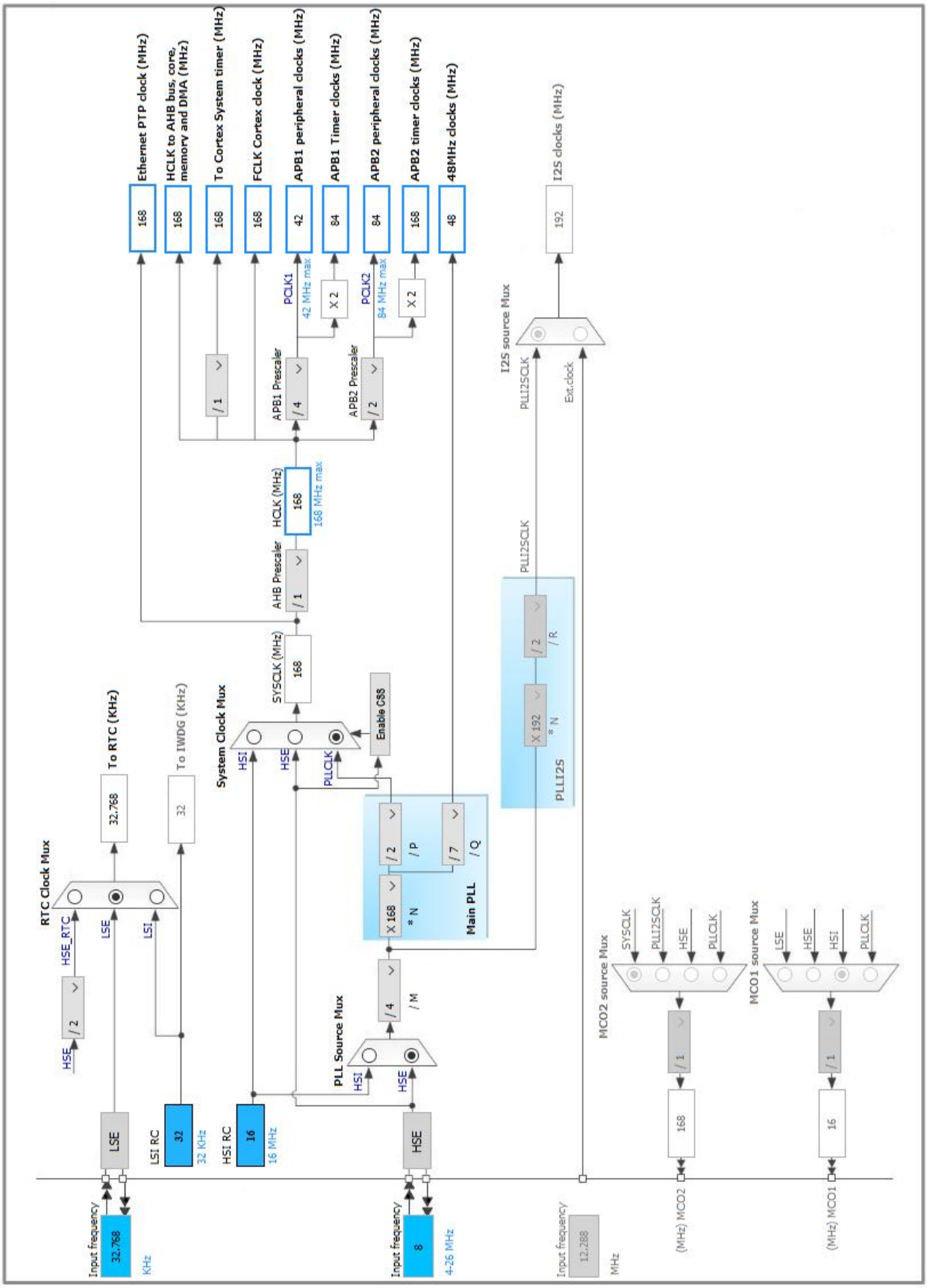
3. Pins Configuration

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
2	PE3	I/O	GPIO_EXTI3	Button K0
3	PE4	I/O	GPIO_EXTI4	Button K1
6	VBAT	Power		
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	PH0-OSC_IN	I/O	RCC_OSC_IN	
13	PH1-OSC_OUT	I/O	RCC_OSC_OUT	
14	NRST	Reset		
15	PC0	I/O	ADC3_IN10	
16	PC1	I/O	ADC3_IN11	
17	PC2	I/O	SPI2_MISO	
18	PC3	I/O	SPI2_MOSI	
19	VDD	Power		
20	VSSA	Power		
21	VREF+	Power		
22	VDDA	Power		
23	PA0-WKUP	I/O	SYS_WKUP	
24	PA1	I/O	ADC1_IN1	
25	PA2	I/O	ADC1_IN2	
26	PA3	I/O	ADC1_IN3	
27	VSS	Power		
28	VDD	Power		
29	PA4	I/O	DAC_OUT1	
30	PA5	I/O	SPI1_SCK	
31	PA6	I/O	SPI1_MISO	
32	PA7	I/O	SPI1_MOSI	
33	PC4	I/O	ADC2_IN14	
34	PC5	I/O	ADC2_IN15	
35	PB0	I/O	GPIO_EXTI0	F_CS
36	PB1	I/O	ADC2_IN9	
39	PE8	I/O	GPIO_EXTI8	SPI1_SS
40	PE9	I/O	GPIO_EXTI9	SPI1_SS1
41	PE10	I/O	GPIO_EXTI10	SPI1_SS2
47	PB10	I/O	I2C2_SCL	

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
48	PB11	I/O	I2C2_SDA	
49	VCAP_1	Power		
50	VDD	Power		
51	PB12	I/O	SPI2_NSS	
52	PB13	I/O	SPI2_SCK	
53	PB14	I/O	GPIO_EXTI14	SOFT_SPI3_CS
54	PB15	I/O	TIM12_CH2	
55	PD8	I/O	USART3_TX	
56	PD9	I/O	USART3_RX	
59	PD12	I/O	TIM4_CH1	
60	PD13	I/O	TIM4_CH2	
63	PC6	I/O	TIM3_CH1	
64	PC7	I/O	TIM3_CH2	
65	PC8	I/O	SDIO_D0	
66	PC9	I/O	SDIO_D1	
68	PA9 *	I/O	USART1_TX	
69	PA10 *	I/O	USART1_RX	
70	PA11	I/O	USB_OTG_FS_DM	
71	PA12	I/O	USB_OTG_FS_DP	
73	VCAP_2	Power		
74	VSS	Power		
75	VDD	Power		
77	PA15	I/O	SPI3_NSS	
78	PC10	I/O	SDIO_D2	
79	PC11	I/O	SDIO_D3	
80	PC12	I/O	SDIO_CK	
83	PD2	I/O	SDIO_CMD	
86	PD5	I/O	USART2_TX	
87	PD6	I/O	USART2_RX	
89	PB3	I/O	SPI3_SCK	
90	PB4	I/O	SPI3_MISO	
91	PB5	I/O	SPI3_MOSI	
93	PB7	I/O	I2C1_SDA	
94	BOOT0	Boot		
95	PB8	I/O	I2C1_SCL	
99	VSS	Power		
100	VDD	Power		

* The pin is affected with a peripheral function but no peripheral mode is activated

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. ADC1

mode: IN1

mode: IN2

mode: IN3

5.1.1. Parameter Settings:

ADCs_Common_Settings:

Mode	Independent mode

ADC_Settings:

Clock Prescaler	PCLK2 divided by 4
Resolution	12 bits (15 ADC Clock cycles)
Data Alignment	Right alignment
Scan Conversion Mode	Disabled
Continuous Conversion Mode	Disabled
Discontinuous Conversion Mode	Disabled
DMA Continuous Requests	Disabled
End Of Conversion Selection	EOC flag at the end of single channel conversion

ADC_Regular_ConversionMode:

Number Of Conversion	1
External Trigger Conversion Source	Regular Conversion launched by software
External Trigger Conversion Edge	None
Rank	1
Channel	Channel 1
Sampling Time	3 Cycles

ADC_Injected_ConversionMode:

Number Of Conversions	0

WatchDog:

Enable Analog WatchDog Mode	false

5.2. ADC2

mode: IN9

mode: IN14

mode: IN15

5.2.1. Parameter Settings:

ADCs_Common_Settings:

Mode	Independent mode

ADC_Settings:

Clock Prescaler	PCLK2 divided by 4
Resolution	12 bits (15 ADC Clock cycles)
Data Alignment	Right alignment
Scan Conversion Mode	Disabled
Continuous Conversion Mode	Disabled
Discontinuous Conversion Mode	Disabled
DMA Continuous Requests	Disabled
End Of Conversion Selection	EOC flag at the end of single channel conversion

ADC_Regular_ConversionMode:

Number Of Conversion	1
External Trigger Conversion Source	Regular Conversion launched by software
External Trigger Conversion Edge	None
Rank	1
Channel	Channel 9
Sampling Time	3 Cycles

ADC_Injected_ConversionMode:

Number Of Conversions	0

WatchDog:

Enable Analog WatchDog Mode	false

5.3. ADC3

mode: IN10

mode: IN11

5.3.1. Parameter Settings:

ADCs_Common_Settings:

Mode	Independent mode

ADC_Settings:

Clock Prescaler	PCLK2 divided by 4
Resolution	12 bits (15 ADC Clock cycles)

Data Alignment	Right alignment
Scan Conversion Mode	Disabled
Continuous Conversion Mode	Disabled
Discontinuous Conversion Mode	Disabled
DMA Continuous Requests	Disabled
End Of Conversion Selection	EOC flag at the end of single channel conversion

ADC_Regular_ConversionMode:

Number Of Conversion	1
External Trigger Conversion Source	Regular Conversion launched by software
External Trigger Conversion Edge	None
Rank	1
Channel	Channel 10
Sampling Time	3 Cycles

ADC_Injected_ConversionMode:

Number Of Conversions	0

WatchDog:

Enable Analog WatchDog Mode	false

5.4. DAC

mode: OUT1 Configuration

5.4.1. Parameter Settings:

DAC Out1 Settings:

Output Buffer	Enable
Trigger	None

5.5. I2C1

I2C: I2C

5.5.1. Parameter Settings:

Master Features:

I2C Speed Mode	Standard Mode
I2C Clock Speed (Hz)	100000

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

5.6. I2C2

I2C: I2C

5.6.1. Parameter Settings:

Master Features:

I2C Speed Mode	Standard Mode
I2C Clock Speed (Hz)	100000

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

5.7. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

Low Speed Clock (LSE) : Crystal/Ceramic Resonator

5.7.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	Enabled
Data Cache	Enabled
Flash Latency(WS)	5 WS (6 CPU cycle)

RCC Parameters:

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

Power Parameters:

Power Regulatror Voltage Scale	Power Regulator Voltage Scale 1

5.8. RTC

mode: Activate Clock Source

5.8.1. Parameter Settings:

General:

Hour Format	Hourformat 24
Asynchronous Predivider value	127
Synchronous Predivider value	255

5.9. SDIO

Mode: SD 4 bits Wide bus

5.9.1. Parameter Settings:

SDIO parameters:

SDIOCLK clock divide factor	0

5.10. SPI1

Mode: Full-Duplex Master

5.10.1. Parameter Settings:

Basic Parameters:

Frame Format	Motorola
Data Size	8 Bits
First Bit	MSB First

Clock Parameters:

Prescaler (for Baud Rate)	2
Baud Rate	**42.0 MBits/s ***
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters:

CRC Calculation	Disabled
NSS Signal Type	Software

5.11. SPI2

Mode: Full-Duplex Master

Hardware NSS Signal: Hardware NSS Output Signal

5.11.1. Parameter Settings:

Basic Parameters:

Frame Format	Motorola
Data Size	8 Bits
First Bit	MSB First

Clock Parameters:

Prescaler (for Baud Rate)	2
Baud Rate	**21.0 MBits/s ***
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters:

CRC Calculation	Disabled
NSS Signal Type	Output Hardware

5.12. SPI3

Mode: Full-Duplex Master

Hardware NSS Signal: Hardware NSS Output Signal

5.12.1. Parameter Settings:

Basic Parameters:

Frame Format	Motorola
Data Size	8 Bits
First Bit	MSB First

Clock Parameters:

Prescaler (for Baud Rate)	2
Baud Rate	**21.0 MBits/s ***

Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters:

CRC Calculation	Disabled
NSS Signal Type	Output Hardware

5.13. SYS

mode: System Wake-Up

Timebase Source: SysTick

5.14. TIM1

Trigger Source: ITR0

Clock Source : Internal Clock

5.14.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0
Internal Clock Division (CKD)	No Division
Repetition Counter (RCR - 8 bits value)	0
Slave Mode Controller	Slave mode disable

Trigger Output (TRGO) Parameters:

Master/Slave Mode	Disable (no sync between this TIM (Master) and its Slaves
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

5.15. TIM3

Clock Source : Internal Clock

Channel1: Input Capture direct mode

Channel2: Input Capture direct mode

5.15.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0
Internal Clock Division (CKD)	No Division

Trigger Output (TRGO) Parameters:

Master/Slave Mode	Disable (no sync between this TIM (Master) and its Slaves
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

Input Capture Channel 1:

Polarity Selection	Rising Edge
IC Selection	Direct
Prescaler Division Ratio	No division
Input Filter (4 bits value)	0

Input Capture Channel 2:

Polarity Selection	Rising Edge
IC Selection	Direct
Prescaler Division Ratio	No division
Input Filter (4 bits value)	0

5.16. TIM4

Trigger Source: ITR1

Clock Source : Internal Clock

Channel1: Input Capture direct mode

Channel2: Input Capture direct mode

5.16.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0
Internal Clock Division (CKD)	No Division
Slave Mode Controller	Slave mode disable

Trigger Output (TRGO) Parameters:

Master/Slave Mode	Disable (no sync between this TIM (Master) and its Slaves
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

Input Capture Channel 1:

Polarity Selection	Rising Edge
IC Selection	Direct
Prescaler Division Ratio	No division

Input Filter (4 bits value)	0

Input Capture Channel 2:

Polarity Selection	Rising Edge
IC Selection	Direct
Prescaler Division Ratio	No division
Input Filter (4 bits value)	0

5.17. TIM6

mode: Activated

5.17.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0

Trigger Output (TRGO) Parameters:

Trigger Event Selection	Reset (UG bit from TIMx_EGR)

5.18. TIM7

mode: Activated

5.18.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0

Trigger Output (TRGO) Parameters:

Trigger Event Selection	Reset (UG bit from TIMx_EGR)

5.19. TIM12

Channel2: Input Capture direct mode

5.19.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	0
Internal Clock Division (CKD)	No Division

Input Capture Channel 2:

Polarity Selection	Rising Edge
IC Selection	Direct
Prescaler Division Ratio	No division
Input Filter (4 bits value)	0

5.20. USART2

Mode: Asynchronous

5.20.1. 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

5.21. USART3

Mode: Asynchronous

5.21.1. 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

5.22. USB_OTG_FS

Mode: Device_Only

5.22.1. Parameter Settings:

Speed	Device Full Speed 12MBit/s
Endpoint 0 Max Packet size	64 Bytes
Enable internal IP DMA	Disabled
Low power	Disabled
Link Power Management	Disabled
VBUS sensing	Enabled
Signal start of frame	Disabled

5.23. USB_DEVICE

Class For FS IP: Communication Device Class (Virtual Port Com)

5.23.1. Parameter Settings:

Basic Parameters:

VirtualMode	Cdc
USBD_MAX_NUM_INTERFACES (Maximum number of supported interfaces)	1
USBD_MAX_NUM_CONFIGURATION (Maximum number of supported configuration)	1
USBD_MAX_STR_DESC_SIZ (Maximum size for the string descriptors)	512
USBD_SUPPORT_USER_STRING (Enable user string descriptor)	Disabled
USBD_SELF_POWERED (Enabled self power)	Enabled
USBD_DEBUG_LEVEL (USBD Debug Level)	0: No debug message

Class Parameters:

USBD_CDC_INTERVAL (Number of micro-frames interval)	1000

5.23.2. Device Descriptor:

Device Descriptor:

VID (Vendor IDentifier)	1155
LANGID_STRING (Language Identifier)	English(United States)
MANUFACTURER_STRING (Manufacturer Identifier)	STMicroelectronics

Device Descriptor FS:

PID (Product IDentifier)	22336
PRODUCT_STRING (Product Identifier)	STM32 Virtual ComPort
SERIALNUMBER_STRING (Serial number)	00000000001A
CONFIGURATION_STRING (Configuration Identifier)	CDC Config
INTERFACE_STRING (Interface Identifier)	CDC Interface

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
ADC1	PA1	ADC1_IN1	Analog mode	No pull-up and no pull-down	n/a	
	PA2	ADC1_IN2	Analog mode	No pull-up and no pull-down	n/a	
	PA3	ADC1_IN3	Analog mode	No pull-up and no pull-down	n/a	
ADC2	PC4	ADC2_IN14	Analog mode	No pull-up and no pull-down	n/a	
	PC5	ADC2_IN15	Analog mode	No pull-up and no pull-down	n/a	
	PB1	ADC2_IN9	Analog mode	No pull-up and no pull-down	n/a	
ADC3	PC0	ADC3_IN10	Analog mode	No pull-up and no pull-down	n/a	
	PC1	ADC3_IN11	Analog mode	No pull-up and no pull-down	n/a	
DAC	PA4	DAC_OUT1	Analog mode	No pull-up and no pull-down	n/a	
I2C1	PB7	I2C1_SDA	Alternate Function Open Drain	Pull-up	**Very High ***	
	PB8	I2C1_SCL	Alternate Function Open Drain	Pull-up	**Very High ***	
I2C2	PB10	I2C2_SCL	Alternate Function Open Drain	Pull-up	**Very High ***	
	PB11	I2C2_SDA	Alternate Function Open Drain	Pull-up	**Very High ***	
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	
	PH0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PH1-OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
SDIO	PC8	SDIO_D0	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC9	SDIO_D1	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC10	SDIO_D2	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC11	SDIO_D3	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC12	SDIO_CK	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PD2	SDIO_CMD	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
SPI1	PA5	SPI1_SCK	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PA6	SPI1_MISO	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PA7	SPI1_MOSI	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
SPI2	PC2	SPI2_MISO	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PC3	SPI2_MOSI	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PB12	SPI2_NSS	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PB13	SPI2_SCK	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
SPI3	PA15	SPI3_NSS	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PB3	SPI3_SCK	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PB4	SPI3_MISO	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PB5	SPI3_MOSI	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
SYS	PA0-WKUP	SYS_WKUP	n/a	n/a	n/a	
TIM3	PC6	TIM3_CH1	Alternate Function Push Pull	No pull-up and no pull-down	Low	
	PC7	TIM3_CH2	Alternate Function Push Pull	No pull-up and no pull-down	Low	
TIM4	PD12	TIM4_CH1	Alternate Function Push Pull	No pull-up and no pull-down	Low	
	PD13	TIM4_CH2	Alternate Function Push Pull	No pull-up and no pull-down	Low	
TIM12	PB15	TIM12_CH2	Alternate Function Push Pull	No pull-up and no pull-down	Low	
USART2	PD5	USART2_TX	Alternate Function Push Pull	Pull-up	**Very High ***	
	PD6	USART2_RX	Alternate Function Push Pull	Pull-up	**Very High ***	
USART3	PD8	USART3_TX	Alternate Function Push Pull	Pull-up	**Very High ***	
	PD9	USART3_RX	Alternate Function Push Pull	Pull-up	**Very High ***	
USB_OTG_FS	PA11	USB_OTG_FS_DM	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PA12	USB_OTG_FS_DP	Alternate Function Push Pull	No pull-up and no pull-down	**Very High**	

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
					*	
Single Mapped Signals	PA9	USART1_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	
	PA10	USART1_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	
GPIO	PE3	GPIO_EXTI3	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	Button K0
	PE4	GPIO_EXTI4	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	Button K1
	PB0	GPIO_EXTI0	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	F_CS
	PE8	GPIO_EXTI8	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	SPI1_SS
	PE9	GPIO_EXTI9	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	SPI1_SS1
	PE10	GPIO_EXTI10	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	SPI1_SS2
	PB14	GPIO_EXTI14	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	SOFT_SPI3_CS

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
USB On The Go FS global interrupt	true	0	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
EXTI line0 interrupt	unused		
EXTI line3 interrupt	unused		
EXTI line4 interrupt	unused		
ADC1, ADC2 and ADC3 global interrupts	unused		
EXTI line[9:5] interrupts	unused		
TIM1 break interrupt and TIM9 global interrupt	unused		
TIM1 update interrupt and TIM10 global interrupt	unused		
TIM1 trigger and commutation interrupts and TIM11 global interrupt	unused		
TIM1 capture compare interrupt	unused		
TIM3 global interrupt	unused		
TIM4 global interrupt	unused		
I2C1 event interrupt	unused		
I2C1 error interrupt	unused		
I2C2 event interrupt	unused		
I2C2 error interrupt	unused		
SPI1 global interrupt	unused		
SPI2 global interrupt	unused		
USART2 global interrupt	unused		
USART3 global interrupt	unused		
EXTI line[15:10] interrupts	unused		
TIM8 break interrupt and TIM12 global interrupt	unused		
SDIO global interrupt	unused		
SPI3 global interrupt	unused		
TIM6 global interrupt, DAC1 and DAC2	unused		

Interrupt Table	Enable	Preenmption Priority	SubPriority
underrun error interrupts			
TIM7 global interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F4
Line	STM32F407/417
MCU	STM32F407VETx
Datasheet	022152_Rev7

7.2. Parameter Selection

Temperature	25
Vdd	3.3

7.3. Battery Selection

Battery	Li-MnO2(CR1225)
Capacity	48.0 mAh
Self Discharge	0.12 %/month
Nominal Voltage	3.0 V
Max Cont Current	1.0 mA
Max Pulse Current	5.0 mA
Cells in series	1
Cells in parallel	1

8. Software Project

8.1. Project Settings

Name	Value
Project Name	f4-1
Project Folder	C:\Users\xyzzy\Documents\dad_microcontroller\stm32\f4-1\f4-1
Toolchain / IDE	Other Toolchains (GPDSC)
Firmware Package Name and Version	STM32Cube FW_F4 V1.15.0

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