



1. Description

1.1. Project

Project Name	F9062-1
Board Name	custom
Generated with:	STM32CubeMX 6.17.0
Date	05/27/2026

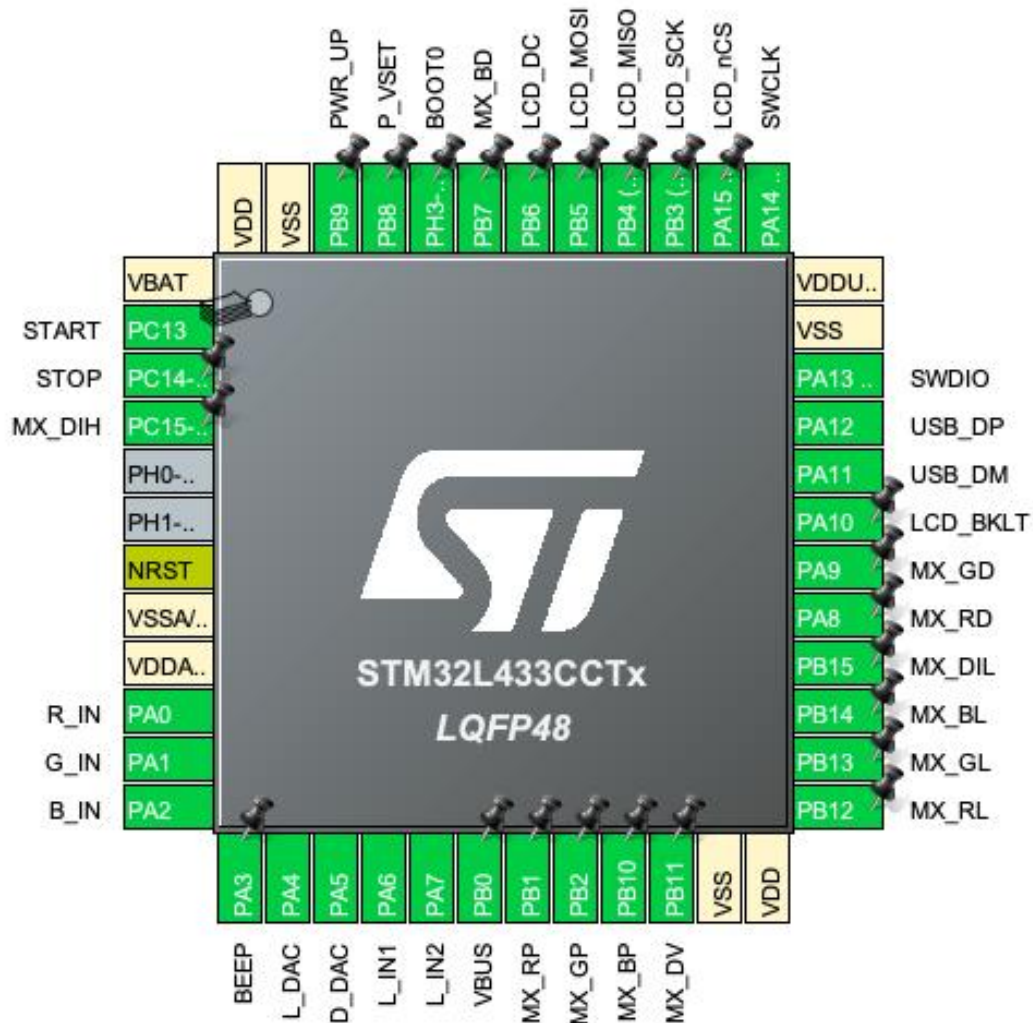
1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x3
MCU name	STM32L433CCTx
MCU Package	LQFP48
MCU Pin number	48

1.3. Core(s) information

Core(s)	Arm Cortex-M4
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2. Pinout Configuration



3. Pins Configuration

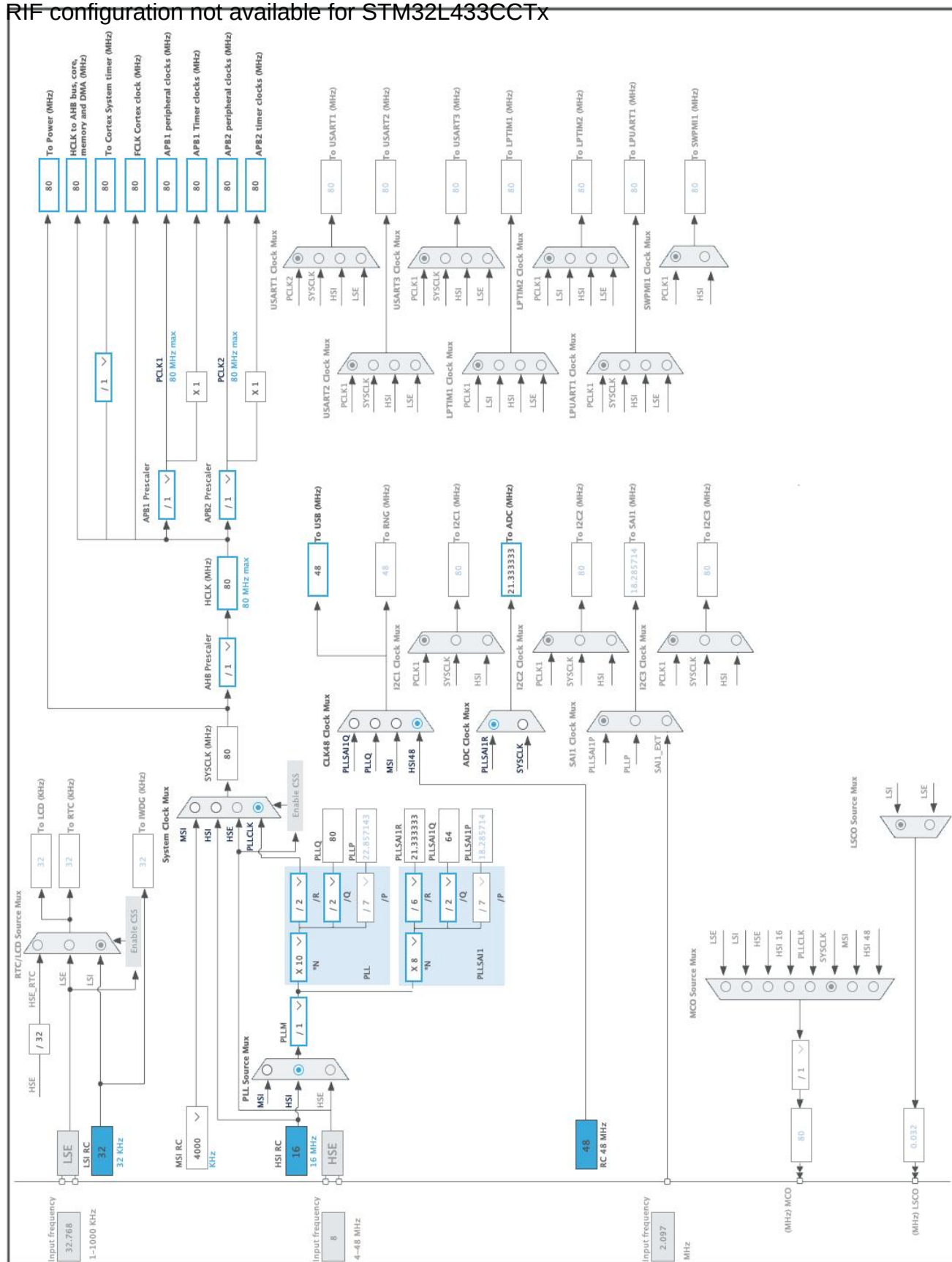
Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
2	PC13 *	I/O	GPIO_Input	START
3	PC14-OSC32_IN (PC14) *	I/O	GPIO_Input	STOP
4	PC15-OSC32_OUT (PC15) *	I/O	GPIO_Output	MX_DIH
7	NRST	Reset		
8	VSSA/VREF-	Power		
9	VDDA/VREF+	Power		
10	PA0	I/O	ADC1_IN5	R_IN
11	PA1	I/O	ADC1_IN6	G_IN
12	PA2	I/O	ADC1_IN7	B_IN
13	PA3	I/O	TIM15_CH2	BEEP
14	PA4	I/O	DAC1_OUT1	L_DAC
15	PA5	I/O	DAC1_OUT2	D_DAC
16	PA6	I/O	ADC1_IN11	L_IN1
17	PA7	I/O	ADC1_IN12	L_IN2
18	PB0 *	I/O	GPIO_Input	VBUS
19	PB1 *	I/O	GPIO_Output	MX_RP
20	PB2 *	I/O	GPIO_Output	MX_GP
21	PB10 *	I/O	GPIO_Output	MX_BP
22	PB11 *	I/O	GPIO_Output	MX_DV
23	VSS	Power		
24	VDD	Power		
25	PB12 *	I/O	GPIO_Output	MX_RL
26	PB13 *	I/O	GPIO_Output	MX_GL
27	PB14 *	I/O	GPIO_Output	MX_BL
28	PB15 *	I/O	GPIO_Output	MX_DIL
29	PA8 *	I/O	GPIO_Output	MX_RD
30	PA9 *	I/O	GPIO_Output	MX_GD
31	PA10	I/O	TIM1_CH3	LCD_BKLT
32	PA11	I/O	USB_DM	
33	PA12	I/O	USB_DP	USB_DP
34	PA13 (JTMS-SWDIO)	I/O	SYS_JTMS-SWDIO	SWDIO
35	VSS	Power		
36	VDDUSB	Power		
37	PA14 (JTCK-SWCLK)	I/O	SYS_JTCK-SWCLK	SWCLK

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
38	PA15 (JTDI) *	I/O	GPIO_Output	LCD_nCS
39	PB3 (JTDO-TRACESWO)	I/O	SPI1_SCK	LCD_SCK
40	PB4 (NJTRST)	I/O	SPI1_MISO	LCD_MISO
41	PB5	I/O	SPI1_MOSI	LCD_MOSI
42	PB6 *	I/O	GPIO_Output	LCD_DC
43	PB7 *	I/O	GPIO_Output	MX_BD
44	PH3-BOOT0 *	I/O	GPIO_Input	BOOT0
45	PB8 *	I/O	GPIO_Output	P_VSET
46	PB9 *	I/O	GPIO_Output	PWR_UP
47	VSS	Power		
48	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration

RIF configuration not available for STM32L433CCTx



1. Power Consumption Calculator report

1.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x3
MCU	STM32L433CCTx
Datasheet	DS11449 Rev3

1.2. Parameter Selection

Temperature	25
Vdd	3.0

1.3. 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

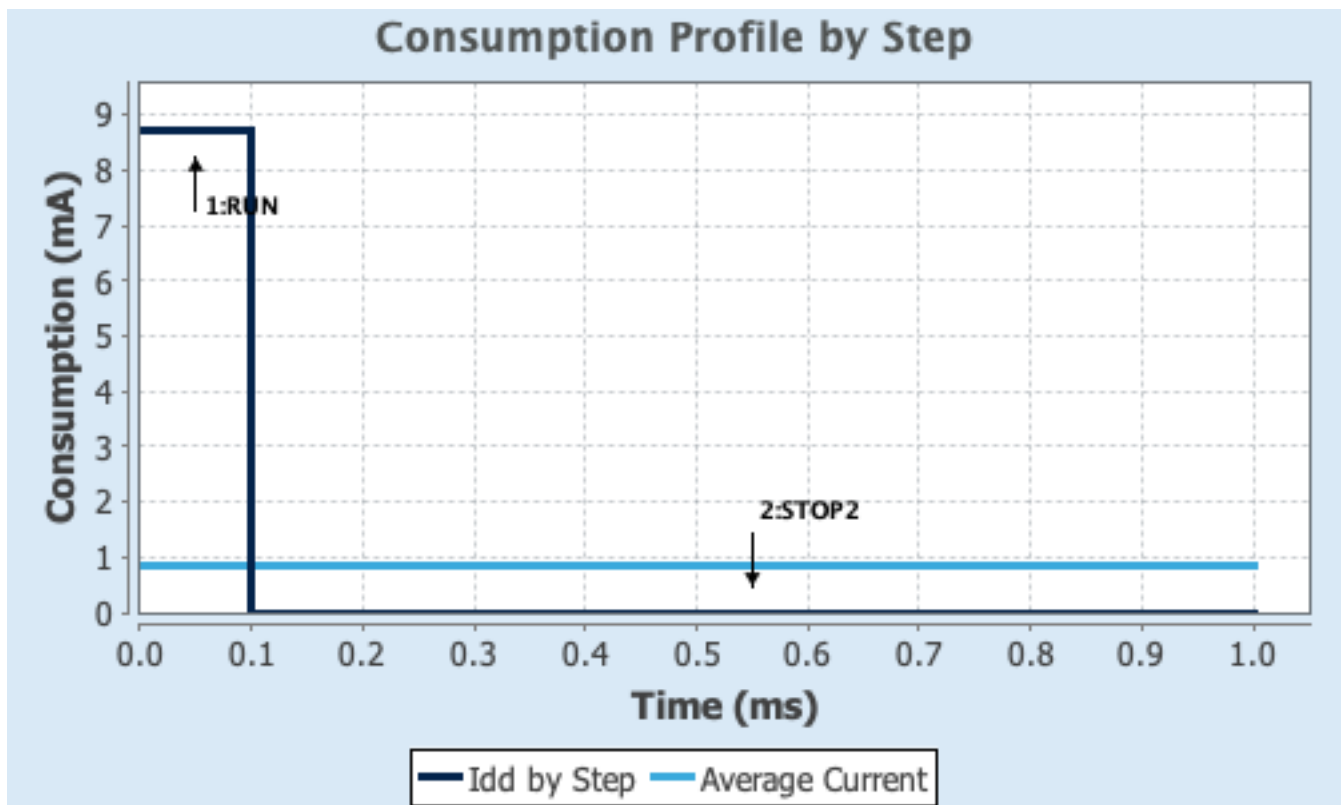
1.4. Sequence

Step	Step1	Step2
Mode	RUN	STOP2
Vdd	3.0	3.0
Voltage Source	Battery	Battery
Range	Range1-High	NoRange
Fetch Type	SRAM2	n/a
CPU Frequency	80 MHz	0 Hz
Clock Configuration	HSE BYP PLL	ALL CLOCKS OFF
Clock Source Frequency	4 MHz	0 Hz
Peripherals		
Additional Cons.	0 mA	0 mA
Average Current	8.71 mA	1.06 μ A
Duration	0.1 ms	0.9 ms
DMIPS	100.0	0.0
Ta Max	103.51	105
Category	In DS Table	In DS Table

1.5. Results

Sequence Time	1 ms	Average Current	871.95 μ A
Battery Life	5 months, 9 days, 16 hours	Average DMIPS	100.0 DMIPS

1.6. Chart



2. Software Project

2.1. Project Settings

Name	Value
Project Name	F9062-1
Project Folder	/Users/andrew/Dropbox/-projects/9062-Semiconductor_Analyser/F9062-1
Toolchain / IDE	CMake
Firmware Package Name and Version	STM32Cube FW_L4 V1.18.2
Application Structure	Advanced
Generate Under Root	No
Do not generate the main()	No
Minimum Heap Size	0x200
Minimum Stack Size	0x400

2.2. 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)	Yes
Enable Full Assert	No

2.3. Advanced Settings - Generated Function Calls

Rank	Function Name	Peripheral Instance Name
1	SystemClock_Config	RCC
2	MX_GPIO_Init	GPIO
3	MX_ADC1_Init	ADC1
4	MX_DAC1_Init	DAC1
5	MX_SPI1_Init	SPI1
6	MX_TIM1_Init	TIM1
7	MX_USB_DEVICE_Init	USB_DEVICE
8	MX_TIM15_Init	TIM15

3. Peripherals and Middlewares Configuration

3.1. ADC1

IN5: IN5 Single-ended

IN6: IN6 Single-ended

IN7: IN7 Single-ended

IN11: IN11 Single-ended

mode: IN12

mode: Vrefint Channel

3.1.1. Parameter Settings:

ADC_Settings:

Clock Prescaler

Asynchronous clock mode divided by 16 *

Resolution

ADC 12-bit resolution

Data Alignment

Right alignment

Scan Conversion Mode

Disabled

Continuous Conversion Mode

Disabled

Discontinuous Conversion Mode

Disabled

DMA Continuous Requests

Disabled

End Of Conversion Selection

End of sequence of conversion *

Overrun behaviour

Overrun data overwritten *

Low Power Auto Wait

Disabled

ADC_Regular_ConversionMode:

Enable Regular Conversions

Enable

Enable Regular Oversampling

Enable *

Oversampling Right Shift

8 bit shift for oversampling *

Oversampling Ratio

Oversampling ratio 256x *

Regular Oversampling Mode

Oversampling Resumed Mode *

Triggered Regular Oversampling

Single trigger for all oversampled conversions

Number Of Conversion

1

External Trigger Conversion Source

Regular Conversion launched by software

External Trigger Conversion Edge

None

Rank

1

Channel

Channel 5

Sampling Time

92.5 Cycles *

Offset Number

No offset

ADC_Injected_ConversionMode:

Enable Injected Conversions

Disable

Analog Watchdog 1:

Enable Analog WatchDog1 Mode false

Analog Watchdog 2:

Enable Analog WatchDog2 Mode false

Analog Watchdog 3:

Enable Analog WatchDog3 Mode false

3.2. DAC1

OUT1 connected to: only to external pin

OUT2 connected to: only to external pin

3.2.1. Parameter Settings:

DAC Out1 Settings:

Mode selected	Normal Mode
Output Buffer	Enable
Trigger	None
User Trimming	Factory trimming

DAC Out2 Settings:

Mode selected	Normal Mode
Output Buffer	Enable
Trigger	None
User Trimming	Factory trimming

3.3. RCC

3.3.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	Disabled
Data Cache	Enabled
Flash Latency(WS)	4 WS (5 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
MSI Calibration Value	0
MSI Auto Calibration	Disabled
HSE Startup Timeout Value (ms)	100
LSE Startup Timeout Value (ms)	5000

Power Parameters:

Power Regulator Voltage Scale

Power Regulator Voltage Scale 1

3.4. SPI1

Mode: Full-Duplex Master

3.4.1. Parameter Settings:

Basic Parameters:

Frame Format

Motorola

Data Size

8 Bits *

First Bit

MSB First

Clock Parameters:

Prescaler (for Baud Rate)

16 *

Baud Rate

5.0 MBits/s *

Clock Polarity (CPOL)

Low

Clock Phase (CPHA)

1 Edge

Advanced Parameters:

CRC Calculation

Disabled

NSSP Mode

Enabled

NSS Signal Type

Software

3.5. SYS

Debug: Serial Wire

Timebase Source: SysTick

3.6. TIM1

Clock Source : Internal Clock

Channel3: PWM Generation CH3

3.6.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)

3 *

Counter Mode

Up

Counter Period (AutoReload Register - 16 bits value)

1023 *

Internal Clock Division (CKD)

No Division

Repetition Counter (RCR - 16 bits value)

0

auto-reload preload	Disable
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Trigger Output (TRGO) Parameters:

Master/Slave Mode (MSM bit)	Disable (Trigger input effect not delayed)
Trigger Event Selection TRGO	Reset (UG bit from TIMx_EGR)
Trigger Event Selection TRGO2	Reset (UG bit from TIMx_EGR)

Break And Dead Time management - BRK Configuration:

BRK State	Disable
BRK Polarity	High
BRK Filter (4 bits value)	0
BRK Sources Configuration	
- Digital Input	Disable
- COMP1	Disable
- COMP2	Disable

Break And Dead Time management - BRK2 Configuration:

BRK2 State	Disable
BRK2 Polarity	High
BRK2 Filter (4 bits value)	0
BRK2 Sources Configuration	
- Digital Input	Disable
- COMP1	Disable
- COMP2	Disable

Break And Dead Time management - Output Configuration:

Automatic Output State	Disable
Off State Selection for Run Mode (OSSR)	Disable
Off State Selection for Idle Mode (OSSl)	Disable
Lock Configuration	Off

Clear Input:

Clear Input Source Disable

PWM Generation Channel 3:

Mode	PWM mode 1
Pulse (16 bits value)	16 *
Output compare preload	Enable
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

3.7. TIM15

mode: Clock Source

Channel2: PWM Generation CH2

3.7.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	19 *
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	65535
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)

Break And Dead Time management - BRK Configuration:

BRK State	Disable
BRK Polarity	High
BRK Sources Configuration	
- Digital Input	Disable
- COMP1	Disable
- COMP2	Disable

Break And Dead Time management - Output Configuration:

Automatic Output State	Disable
Off State Selection for Idle Mode (OSSI)	Disable
Lock Configuration	Off

PWM Generation Channel 2:

Mode	PWM mode 1
Pulse (16 bits value)	0
Output compare preload	Enable
Fast Mode	Disable
CH Polarity	High
CH Idle State	Reset

3.8. USB

mode: Device (FS)

3.8.1. Parameter Settings:

Basic Parameters:

Speed	Full Speed 12MBit/s
Physical interface	Internal Phy

Sof Enable	Disabled
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Power Parameters:

Low Power	Disabled
Link Power Management	Disabled
Battery Charging	Disabled

3.9. USB_DEVICE

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

3.9.1. Parameter Settings:

Basic Parameters:

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_SELF_POWERED (Enabled self power)	Enabled
USBD_DEBUG_LEVEL (USBD Debug Level)	0: No debug message
USBD_LPM_ENABLED (Link Power Management)	1: Link Power Management supported

Class Parameters:

USB CDC Rx Buffer Size	1024
USB CDC Tx Buffer Size	1024

3.9.2. Device Descriptor:

Device Descriptor:

VID (Vendor Identifier)	1155
LANGID_STRING (Language Identifier)	English(United States)
MANUFACTURER_STRING (Manufacturer Identifier)	Imbrius Pty Ltd *

Device Descriptor FS:

PID (Product Identifier)	22336
PRODUCT_STRING (Product Identifier)	9062 Semiconductor Analyser *
CONFIGURATION_STRING (Configuration Identifier)	CDC Config
INTERFACE_STRING (Interface Identifier)	CDC Interface

*** User modified value**

4. System Configuration

4.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
ADC1	PA0	ADC1_IN5	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	R_IN
	PA1	ADC1_IN6	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	G_IN
	PA2	ADC1_IN7	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	B_IN
	PA6	ADC1_IN11	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	L_IN1
	PA7	ADC1_IN12	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	L_IN2
DAC1	PA4	DAC1_OUT1	Analog mode	No pull-up and no pull-down	n/a	L_DAC
	PA5	DAC1_OUT2	Analog mode	No pull-up and no pull-down	n/a	D_DAC
SPI1	PB3 (JTDO-TRACESWO)	SPI1_SCK	Alternate Function Push Pull	No pull-up and no pull-down	Very High *	LCD_SCK
	PB4 (NJTRST)	SPI1_MISO	Alternate Function Push Pull	No pull-up and no pull-down	Very High *	LCD_MISO
	PB5	SPI1_MOSI	Alternate Function Push Pull	No pull-up and no pull-down	Very High *	LCD_MOSI
SYS	PA13 (JTMS-SWDIO)	SYS_JTMS-SWDIO	n/a	n/a	n/a	SWDIO
	PA14 (JTCK-SWCLK)	SYS_JTCK-SWCLK	n/a	n/a	n/a	SWCLK
TIM1	PA10	TIM1_CH3	Alternate Function Push Pull	No pull-up and no pull-down	Low	LCD_BKLT
TIM15	PA3	TIM15_CH2	Alternate Function Push Pull	No pull-up and no pull-down	Low	BEEP
USB	PA11	USB_DM	n/a	n/a	n/a	
	PA12	USB_DP	n/a	n/a	n/a	USB_DP
GPIO	PC13	GPIO_Input	Input mode	Pull-down *	n/a	START
	PC14-OSC32_IN (PC14)	GPIO_Input	Input mode	Pull-down *	n/a	STOP
	PC15-OSC32_OUT (PC15)	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_DIH
	PB0	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	VBUS
	PB1	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_RP
	PB2	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_GP

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PB10	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_BP
	PB11	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_DV
	PB12	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_RL
	PB13	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_GL
	PB14	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_BL
	PB15	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_DIL
	PA8	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_RD
	PA9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_GD
	PA15 (JTDI)	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LCD_nCS
	PB6	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	LCD_DC
	PB7	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	MX_BD
	PH3-BOOT0	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	BOOT0
	PB8	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	P_VSET
	PB9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	PWR_UP

4.2. DMA configuration

nothing configured in DMA service

4.3. NVIC configuration

4.3.1. 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
ADC1 global interrupt	true	0	0
USB event interrupt through EXTI line 17	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		
TIM1 break interrupt and TIM15 global interrupt	unused		
TIM1 update interrupt and TIM16 global interrupt	unused		
TIM1 trigger and commutation interrupts	unused		
TIM1 capture compare interrupt	unused		
SPI1 global interrupt	unused		
TIM6 global interrupt, DAC channel1 and channel2 underrun error interrupts	unused		
FPU global interrupt	unused		

4.3.2. 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
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
ADC1 global interrupt	false	true	true

Enabled interrupt Table	Select for init sequence ordering	Generate IRQ handler	Call HAL handler
USB event interrupt through EXTI line 17	false	true	true

*** User modified value**

5. System Views

5.1. Category view

5.1.1. Current

Middleware

USB_DEVICE ✓

Software Packs

System Core

DMA

GPIO ✓

NVIC ✓

RCC ✓

SYS ✓

Analog

ADC1 ✓

DAC1 ✓

Timers

TIM1 ✓

TIM15 ✓

Connectivity

SPI1 ✓

USB ✓

Multimedia

Security

Computing

6. Software Pack Report

6.1. Software Pack selected

Vendor	Name	Version	Component
STMicroelectronics	X-CUBE-TOUCHGFX	4.26.1	Class : Graphics Group : Application Variant : TouchGFX Generator Version : 4.26.1

7. Docs & Resources

Type	Link
BSDL files	https://www.st.com/resource/en/bsdl_model/stm32l4_bsd.zip
IBIS models	https://www.st.com/resource/en/ibis_model/stm32l4_ibis.zip
System View Description	https://www.st.com/resource/en/svd/stm32l4_svd.zip
Presentations	https://www.st.com/resource/en/product_presentation/stm32-stm8_embedded_software_solutions.pdf
Presentations	https://www.st.com/resource/en/product_presentation/stm32_eval_tools_portfolio.pdf
Presentations	https://www.st.com/resource/en/product_presentation/stm32_stm8_functional-safety-packages.pdf
Presentations	https://www.st.com/resource/en/product_presentation/stm32-stm8_software_development_tools.pdf
Presentations	https://www.st.com/resource/en/product_presentation/microcontrollers-stm32-family-overview.pdf
Presentations	https://www.st.com/resource/en/product_presentation/microcontrollers-stm32l4-series-product-overview.pdf
Brochures	https://www.st.com/resource/en/brochure/brstm32ulp.pdf
Flyers	https://www.st.com/resource/en/flyer/flstm32l4.pdf
Flyers	https://www.st.com/resource/en/flyer/flstm32nucleo.pdf
Flyers	https://www.st.com/resource/en/flyer/flstm32trust.pdf
Magazine Articles	https://www.st.com/resource/en/magazine/design-elektronik_august2017.pdf
Magazine Articles	https://www.st.com/resource/en/magazine/design-elektronik_october2016.pdf
Product Certifications	https://www.st.com/resource/en/certification_document/sesip-2000002-01-cert.pdf
Product Certifications	https://www.st.com/resource/en/certification_document/sesip-2000002-01-st2.pdf
Product	https://www.st.com/resource/en/certification_document/psa-

Certifications	certificate_stm32l4.pdf
Security Bulletin	https://www.st.com/resource/en/technical_note/tn1489-security-bulletin-tn1489stpsirt-physical-attacks-on-stm32-and-stm32cube-firmware-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an1709-emc-design-guide-for-stm8-stm32-and-legacy-mcus-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an3126-audio-and-waveform-generation-using-the-dac-in-stm32-products-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an3155-usart-protocol-used-in-the-stm32-bootloader-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an3156-usb-dfu-protocol-used-in-the-stm32-bootloader-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4221-i2c-protocol-used-in-the-stm32-bootloader-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4286-spi-protocol-used-in-the-stm32-bootloader-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4555-getting-started-with-stm32l4-series-and-stm32l4-series-hardware-development-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4612-migrating-from-stm32l1-series-to-stm32l4-series-and-stm32l4-series-microcontrollers-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4616-migrating-from-stm32f401-and-stm32f411-lines-to-stm32l4-series-and-stm32l4-series-microcontrollers-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4621-stm32l4-and-stm32l4-ultralowpower-features-overview-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4629-adc-hardware-oversampling-for-microcontrollers-of-the-stm32-l0-and-l4-series-stmicroelectronics.pdf
Application Notes	https://www.st.com/resource/en/application_note/an4649-migrating-from-stm32f1-series-to-stm32l4-series--stm32l4-series-microntrrollers-

stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4655-virtually-increasing-the-number-of-serial-communication-peripherals-in-stm32-applications-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4726-stm32cube-firmware-examples-for-stm32l4-series-and-stm32l4-series-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4729-stm32l0l4-firewall-overview-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4730-using-the-firewall-embedded-in-stm32l0l4l4-series-mcus-for-secure-access-to-sensitive-parts-of-code-and-data-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4746-optimizing-power-and-performance-with-stm32l4-and-stm32l4-series-microcontrollers-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4750-handling-of-soft-errors-in-stm32-applications-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4754-migrating-between-stm32l486xx476xx-and-stm32l443xx433xx-microcontrollers-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4776-generalpurpose-timer-cookbook-for-stm32-microcontrollers-stmicroelectronics.pdf

Application Notes https://www.st.com/resource/en/application_note/an4803-highspeed-si-simulations-using-ibis-and-boardlevel-simulations-using-hyperlynx-si-on-stm32-mcus-and-mpus-stmicroelectronics.pdf

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