
STM32
CubeMX

1. Description

1.1. Project

Project Name	TelemHost_Firmware_FE13
Board Name	custom
Generated with:	STM32CubeMX 6.15.0
Date	11/04/2025

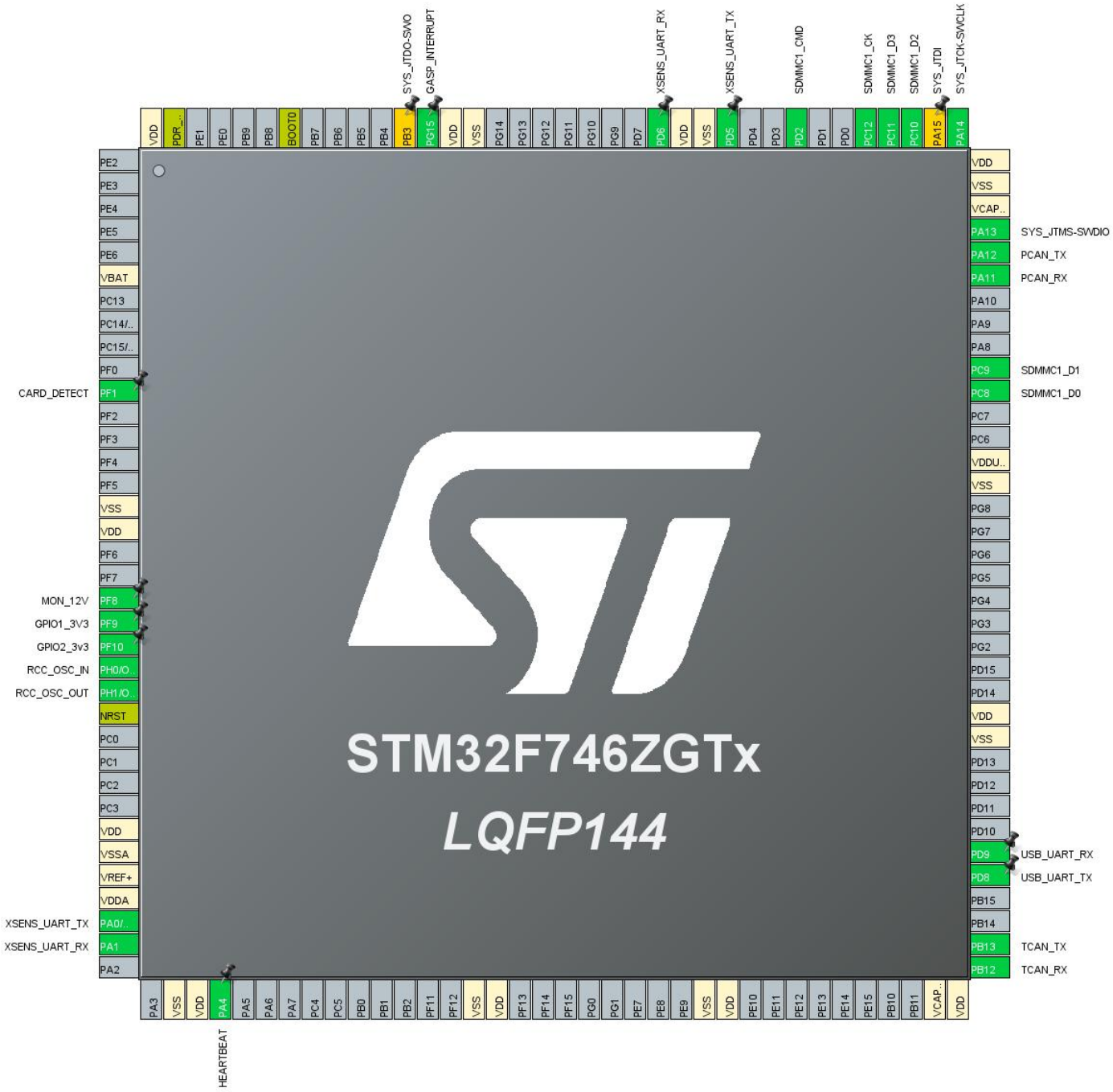
1.2. MCU

MCU Series	STM32F7
MCU Line	STM32F7x6
MCU name	STM32F746ZGTx
MCU Package	LQFP144
MCU Pin number	144

1.3. Core(s) information

Core(s)	Arm Cortex-M7

2. Pinout Configuration



3. Pins Configuration

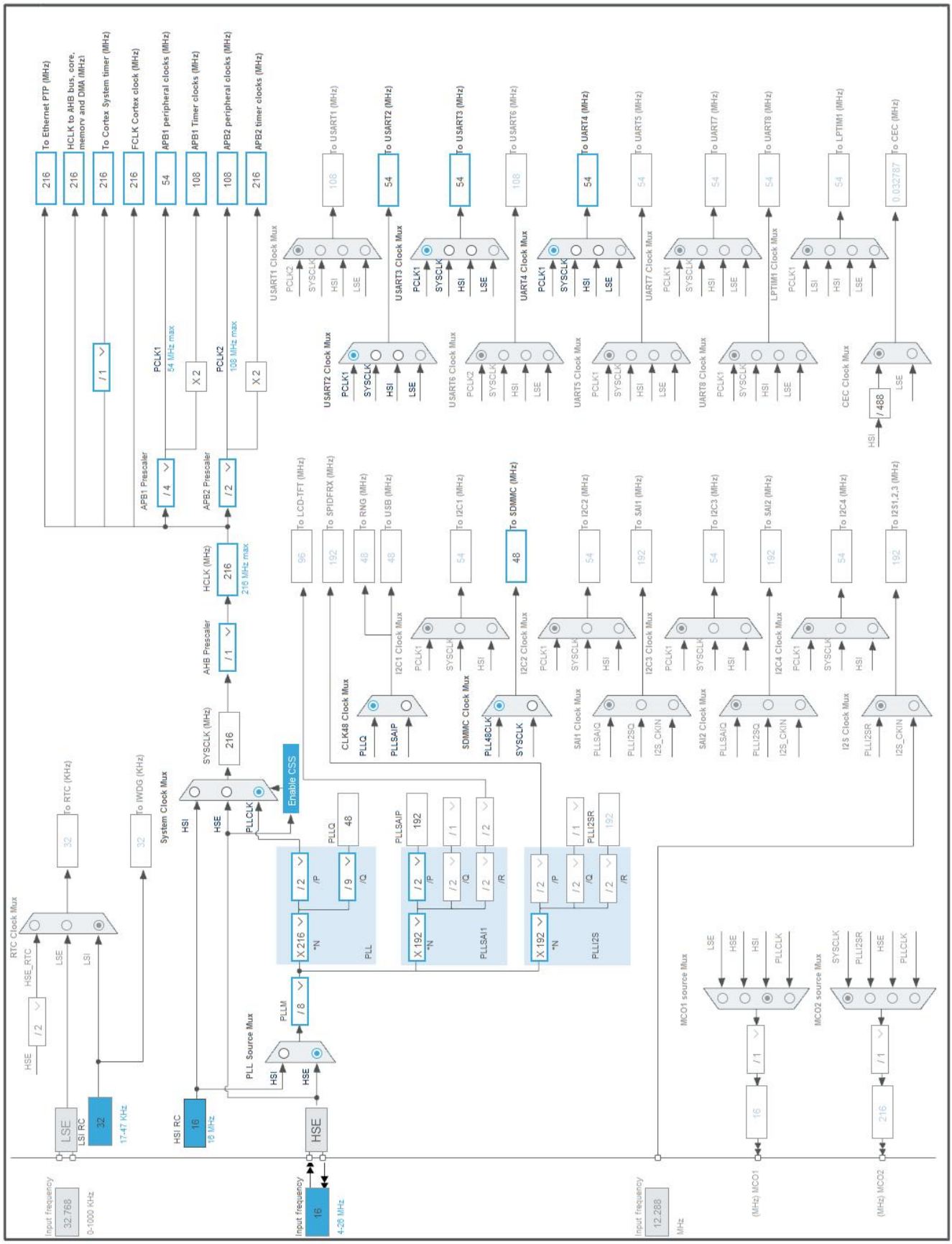
Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
11	PF1 *	I/O	GPIO_Input	CARD_DETECT
16	VSS	Power		
17	VDD	Power		
20	PF8 *	I/O	GPIO_Input	MON_12V
21	PF9 *	I/O	GPIO_Output	GPIO1_3V3
22	PF10 *	I/O	GPIO_Output	GPIO2_3v3
23	PH0/OSC_IN	I/O	RCC_OSC_IN	
24	PH1/OSC_OUT	I/O	RCC_OSC_OUT	
25	NRST	Reset		
30	VDD	Power		
31	VSSA	Power		
32	VREF+	Power		
33	VDDA	Power		
34	PA0/WKUP	I/O	UART4_TX	XSENS_UART_TX
35	PA1	I/O	UART4_RX	XSENS_UART_RX
38	VSS	Power		
39	VDD	Power		
40	PA4 *	I/O	GPIO_Output	HEARTBEAT
51	VSS	Power		
52	VDD	Power		
61	VSS	Power		
62	VDD	Power		
71	VCAP_1	Power		
72	VDD	Power		
73	PB12	I/O	CAN2_RX	TCAN_RX
74	PB13	I/O	CAN2_TX	TCAN_TX
77	PD8	I/O	USART3_TX	USB_UART_TX
78	PD9	I/O	USART3_RX	USB_UART_RX
83	VSS	Power		
84	VDD	Power		
94	VSS	Power		
95	VDDUSB	Power		
98	PC8	I/O	SDMMC1_D0	
99	PC9	I/O	SDMMC1_D1	
103	PA11	I/O	CAN1_RX	PCAN_RX

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
104	PA12	I/O	CAN1_TX	PCAN_TX
105	PA13	I/O	SYS_JTMS-SWDIO	
106	VCAP_2	Power		
107	VSS	Power		
108	VDD	Power		
109	PA14	I/O	SYS_JTCK-SWCLK	
110	PA15 **	I/O	SYS_JTDI	
111	PC10	I/O	SDMMC1_D2	
112	PC11	I/O	SDMMC1_D3	
113	PC12	I/O	SDMMC1_CK	
116	PD2	I/O	SDMMC1_CMD	
119	PD5	I/O	USART2_TX	XSENS_UART_TX
120	VSS	Power		
121	VDD	Power		
122	PD6	I/O	USART2_RX	XSENS_UART_RX
130	VSS	Power		
131	VDD	Power		
132	PG15	I/O	GPIO_EXTI15	GASP_INTERRUPT
133	PB3 **	I/O	SYS_JTDO-SWO	
138	BOOT0	Boot		
143	PDR_ON	Reset		
144	VDD	Power		

* The pin is affected with an I/O function

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

4. Clock Tree Configuration



1. Power Consumption Calculator report

1.1. Microcontroller Selection

Series	STM32F7
Line	STM32F7x6
MCU	STM32F746ZGTx
Datasheet	DS10916_Rev4

1.2. Parameter Selection

Temperature	25
Vdd	3.3

1.3. Battery Selection

Battery	Alkaline(9V)
Capacity	625.0 mAh
Self Discharge	0.3 %/month
Nominal Voltage	9.0 V
Max Cont Current	200.0 mA
Max Pulse Current	0.0 mA
Cells in series	1
Cells in parallel	1

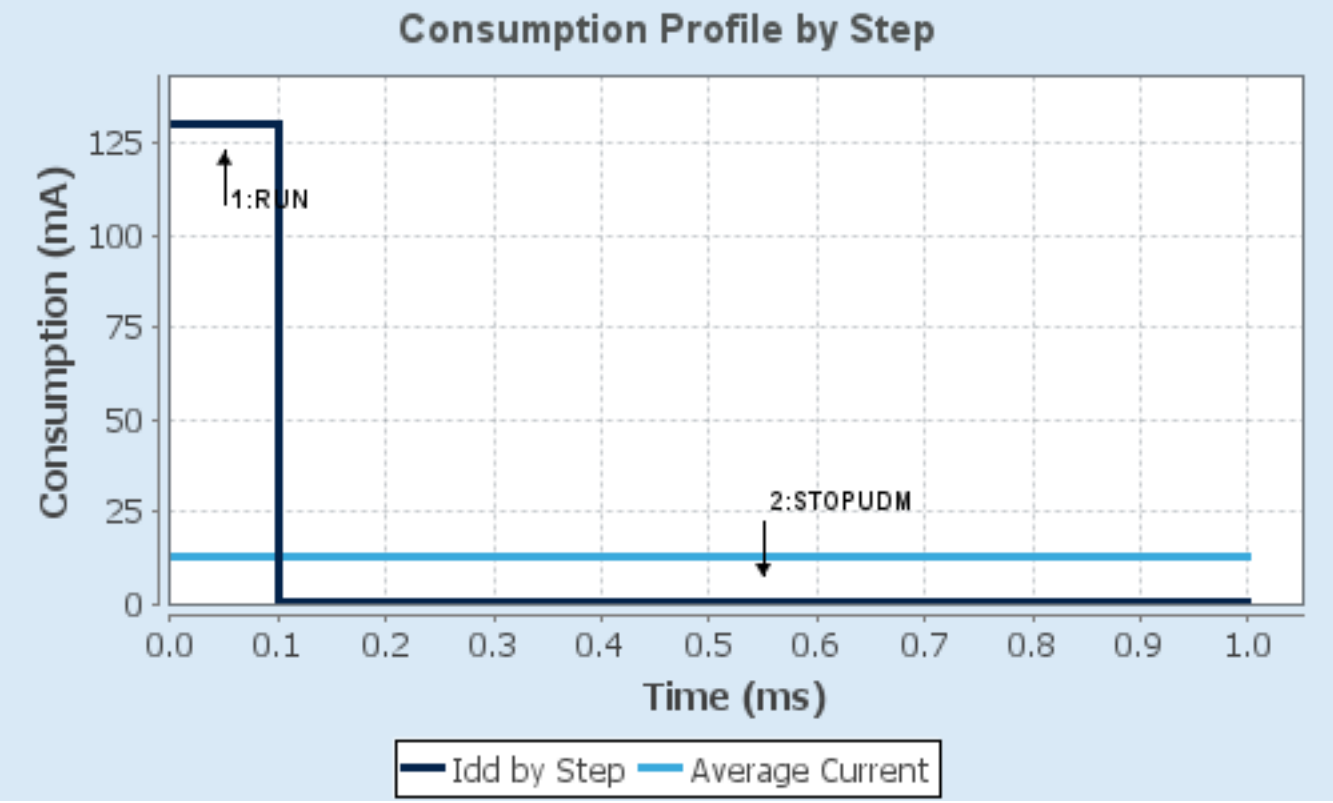
1.4. Sequence

Step	Step1	Step2
Mode	RUN	STOP_UDM (Under Drive)
Vdd	3.3	3.3
Voltage Source	Battery	Battery
Range	Scale1-High	No Scale
Fetch Type	ITCM/FLASH/REGON	n/a
CPU Frequency	216 MHz	0 Hz
Clock Configuration	HSE PLL	Regulator_LP Flash-PwrDwn
Clock Source Frequency	4 MHz	0 Hz
Peripherals		
Additional Cons.	0 mA	0 mA
Average Current	130 mA	100 µA
Duration	0.1 ms	0.9 ms
DMIPS	462.0	0.0
Ta Max	87.84	104.99
Category	In DS Table	In DS Table

1.5. Results

Sequence Time	1 ms	Average Current	13.09 mA
Battery Life	1 day, 23 hours	Average DMIPS	462.24005 DMIPS

1.6. Chart


Consumption Profile by Step
Consumption (mA)
125
100
75
50
25
0
1:RUN
2:STOPUDM
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Time (ms)
Idd by Step
Average Current

2. Software Project

2.1. Project Settings

Name	Value
Project Name	TelemHost_Firmware_FE13
Project Folder	C:\Users\Anthony Yan\OneDrive\Documents\FRUCD_Firmware\TelemHost-
Toolchain / IDE	STM32CubeIDE
Firmware Package Name and Version	STM32Cube FW_F7 V1.17.1
Application Structure	Advanced
Generate Under Root	Yes
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)	No
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_DMA_Init	DMA
4	MX_CAN2_Init	CAN2
5	MX_SDMMC1_SD_Init	SDMMC1
6	MX_TIM4_Init	TIM4
7	MX_UART4_Init	UART4
8	MX_CAN1_Init	CAN1
9	MX_USART3_UART_Init	USART3
10	MX_TIM7_Init	TIM7
11	MX_FATFS_Init	FATFS

Rank	Function Name	Peripheral Instance Name
12	MX_TIM1_Init	TIM1
13	MX_USART2_UART_Init	USART2

3. Peripherals and Middlewares Configuration

3.1. CAN1

mode: Activated

3.1.1. Parameter Settings:

Bit Timings Parameters:

Prescaler (for Time Quantum)	**18 ***
Time Quantum	**333.33333333333337 ***
Time Quanta in Bit Segment 1	**2 Times ***
Time Quanta in Bit Segment 2	**3 Times ***
Time for one Bit	**2000 ***
Baud Rate	**499999 ***
ReSynchronization Jump Width	1 Time

Basic Parameters:

Time Triggered Communication Mode	Disable
Automatic Bus-Off Management	Disable
Automatic Wake-Up Mode	Disable
Automatic Retransmission	Disable
Receive Fifo Locked Mode	Disable
Transmit Fifo Priority	Disable

Advanced Parameters:

Operating Mode	Normal

3.2. CAN2

mode: Activated

3.2.1. Parameter Settings:

Bit Timings Parameters:

Prescaler (for Time Quantum)	**18 ***
Time Quantum	**333.33333333333337 ***
Time Quanta in Bit Segment 1	**2 Times ***
Time Quanta in Bit Segment 2	**3 Times ***
Time for one Bit	**2000 ***
Baud Rate	**499999 ***
ReSynchronization Jump Width	1 Time

Basic Parameters:

Time Triggered Communication Mode	Disable
Automatic Bus-Off Management	Disable
Automatic Wake-Up Mode	Disable
Automatic Retransmission	Disable
Receive Fifo Locked Mode	Disable
Transmit Fifo Priority	Disable

Advanced Parameters:

Operating Mode	Normal

3.3. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

3.3.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Flash Latency(WS)	7 WS (8 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
TIM Prescaler Selection	Disabled
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

Power Parameters:

Power Over Drive	Enabled
Power Regulator Voltage Scale	Power Regulator Voltage Scale 1

3.4. SDMMC1

Mode: SD 4 bits Wide bus

3.4.1. Parameter Settings:

SDMMC parameters:

Clock transition on which the bit capture is made	Rising transition
SDMMC Clock divider bypass	Disable
SDMMC Clock output enable when the bus is idle	Disable the power save for the clock
SDMMC hardware flow control	The hardware control flow is disabled
SDMMCCLK clock divide factor	0

3.5. SYS

Debug: Serial Wire

Timebase Source: TIM6

3.6. TIM1

Clock Source : Internal Clock

3.6.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	65535
Internal Clock Division (CKD)	No Division
Repetition Counter (RCR - 16 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 TRGO	Reset (UG bit from TIMx_EGR)
Trigger Event Selection TRGO2	Reset (UG bit from TIMx_EGR)

3.7. TIM4

Trigger Source: ITR0

3.7.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	0
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	65535
Internal Clock Division (CKD)	No Division
auto-reload preload	Disable
Slave Mode Controller	Slave mode disable

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)

3.8. TIM7

mode: Activated

3.8.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	**8000 ***
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	**5000 ***
auto-reload preload	Disable

Trigger Output (TRGO) Parameters:

Trigger Event Selection	Reset (UG bit from TIMx_EGR)

3.9. UART4

Mode: Asynchronous

3.9.1. 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

3.10. USART2

Mode: Asynchronous

3.10.1. 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

3.11. USART3

Mode: Asynchronous

3.11.1. 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	**Enable ***
Overrun	Enable
DMA on RX Error	Enable
MSB First	Disable

3.12. FATFS

mode: SD Card

3.12.1. Set Defines:

Version:

FATFS version	R0.12c

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_EXPAND (Use f_expand function)	Disabled
USE_CHMOD (Change attributes function)	Disabled
USE_LABEL (Volume label functions)	Disabled
USE_FORWARD (Forward function)	Disabled

Locale and Namespace Parameters:

CODE_PAGE (Code page on target)	Latin 1
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)	**4096 ***
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_EXFAT (Support of exFAT file system)	Disabled
FS_NORTC (Timestamp feature)	Dynamic timestamp
FS_REENTRANT (Re-Entrancy)	Enabled
FS_TIMEOUT (Timeout ticks)	1000
USE_MUTEX	Disabled
SYNC_t (O/S sync object)	osSemaphoreId_t
FS_LOCK (Number of files opened simultaneously)	2

3.12.2. Advanced Settings:

SDIO/SDMMC:

SDMMC instance	SDMMC1
Use dma template	Enabled
BSP code for SD	Generic

3.12.3. Platform Settings:

Detect_SDIO	PF1

3.13. FREERTOS

Interface: CMSIS_V2

3.13.1. Config parameters:

API:

FreeRTOS API	CMSIS v2

Versions:

FreeRTOS version	10.2.1
CMSIS-RTOS version	2.00

MPU/FPU:

ENABLE_MPU	Disabled
ENABLE_FPU	Disabled

Kernel settings:

USE_PREEMPTION	Enabled
CPU_CLOCK_HZ	SystemCoreClock
TICK_RATE_HZ	1000
MAX_PRIORITIES	56
MINIMAL_STACK_SIZE	128
MAX_TASK_NAME_LEN	16
USE_16_BIT_TICKS	Disabled

IDLE_SHOULD_YIELD	Enabled
USE_MUTEXES	Enabled
USE_RECURSIVE_MUTEXES	Enabled
USE_COUNTING_SEMAPHORES	Enabled
QUEUE_REGISTRY_SIZE	8
USE_APPLICATION_TASK_TAG	Disabled
ENABLE_BACKWARD_COMPATIBILITY	Enabled
USE_PORT_OPTIMISED_TASK_SELECTION	Disabled
USE_TICKLESS_IDLE	Disabled
USE_TASK_NOTIFICATIONS	Enabled
RECORD_STACK_HIGH_ADDRESS	Disabled

Memory management settings:

Memory Allocation	Dynamic / Static
TOTAL_HEAP_SIZE	15360
Memory Management scheme	heap_4

Hook function related definitions:

USE_IDLE_HOOK	Disabled
USE_TICK_HOOK	Disabled
USE_MALLOC_FAILED_HOOK	Disabled
USE_DAEMON_TASK_STARTUP_HOOK	Disabled
CHECK_FOR_STACK_OVERFLOW	Disabled

Run time and task stats gathering related definitions:

GENERATE_RUN_TIME_STATS	Disabled
USE_TRACE_FACILITY	Enabled
USE_STATS_FORMATTING_FUNCTIONS	Disabled

Co-routine related definitions:

USE_CO_ROUTINES	Disabled
MAX_CO_ROUTINE_PRIORITIES	2

Software timer definitions:

USE_TIMERS	Enabled
TIMER_TASK_PRIORITY	2
TIMER_QUEUE_LENGTH	10
TIMER_TASK_STACK_DEPTH	256

Interrupt nesting behaviour configuration:

LIBRARY_LOWEST_INTERRUPT_PRIORITY	15
LIBRARY_MAX_SYSCALL_INTERRUPT_PRIORITY	5

Added with 10.2.1 support:

MESSAGE_BUFFER_LENGTH_TYPE	size_t
USE_POSIX_ERRNO	Disabled

3.13.2. Include parameters:

Include definitions:

vTaskPrioritySet	Enabled
uxTaskPriorityGet	Enabled
vTaskDelete	Enabled
vTaskCleanUpResources	Disabled
vTaskSuspend	Enabled
vTaskDelayUntil	Enabled
vTaskDelay	Enabled
xTaskGetSchedulerState	Enabled
xTaskResumeFromISR	Enabled
xQueueGetMutexHolder	Enabled
xSemaphoreGetMutexHolder	Disabled
pcTaskGetTaskName	Disabled
uxTaskGetStackHighWaterMark	Enabled
xTaskGetCurrentTaskHandle	Disabled
eTaskGetState	Enabled
xEventGroupSetBitFromISR	Disabled
xTimerPendFunctionCall	Enabled
xTaskAbortDelay	Disabled
xTaskGetHandle	Disabled
uxTaskGetStackHighWaterMark2	Disabled

3.13.3. Advanced settings:

Newlib settings (see parameter description first):

USE_NEWLIB_REENTRANT	**Enabled ***

Project settings (see parameter description first):

Use FW pack heap file	Enabled

*** User modified value**

4. System Configuration

4.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
CAN1	PA11	CAN1_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	PCAN_RX
	PA12	CAN1_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	PCAN_TX
CAN2	PB12	CAN2_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	TCAN_RX
	PB13	CAN2_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	TCAN_TX
RCC	PH0/OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
	PH1/OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	
SDMMC1	PC8	SDMMC1_D0	Alternate Function Push Pull	**Pull-up ***	Very High	
	PC9	SDMMC1_D1	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC10	SDMMC1_D2	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC11	SDMMC1_D3	Alternate Function Push Pull	No pull-up and no pull-down	Very High	
	PC12	SDMMC1_CK	Alternate Function Push Pull	**Pull-up ***	Very High	
	PD2	SDMMC1_CMD	Alternate Function Push Pull	**Pull-up ***	Very High	
SYS	PA13	SYS_JTMS-SWDIO	n/a	n/a	n/a	
	PA14	SYS_JTCK-SWCLK	n/a	n/a	n/a	
UART4	PA0/WKUP	UART4_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	XSENS_UART_TX
	PA1	UART4_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	XSENS_UART_RX
USART2	PD5	USART2_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	XSENS_UART_TX
	PD6	USART2_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	XSENS_UART_RX
USART3	PD8	USART3_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	USB_UART_TX
	PD9	USART3_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	USB_UART_RX

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
Single Mapped Signals	PA15	SYS_JTDI	n/a	n/a	n/a	
	PB3	SYS_JTDO-SWO	n/a	n/a	n/a	
GPIO	PF1	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	CARD_DETECT
	PF8	GPIO_Input	Input mode	No pull-up and no pull-down	n/a	MON_12V
	PF9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	GPIO1_3V3
	PF10	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	GPIO2_3v3
	PA4	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	HEARTBEAT
	PG15	GPIO_EXTI15	External Interrupt Mode with Rising edge trigger detection	No pull-up and no pull-down	n/a	GASP_INTERRUPT

4.2. DMA configuration

DMA request	Stream	Direction	Priority
SDMMC1_RX	DMA2_Stream3	Peripheral To Memory	Low
SDMMC1_TX	DMA2_Stream6	Memory To Peripheral	Low
UART4_RX	DMA1_Stream2	Peripheral To Memory	Low

SDMMC1_RX: DMA2_Stream3 DMA request Settings:

Mode:	**Peripheral Flow Control ***
Use fifo:	**Enable ***
FIFO Threshold:	Full
Peripheral Increment:	Disable
Memory Increment:	**Enable ***
Peripheral Data Width:	**Word ***
Memory Data Width:	Word
Peripheral Burst Size:	**4 Increment ***
Memory Burst Size:	4 Increment

SDMMC1_TX: DMA2_Stream6 DMA request Settings:

Mode:	**Peripheral Flow Control ***
Use fifo:	**Enable ***
FIFO Threshold:	Full
Peripheral Increment:	Disable
Memory Increment:	**Enable ***
Peripheral Data Width:	**Word ***
Memory Data Width:	Word
Peripheral Burst Size:	**4 Increment ***
Memory Burst Size:	4 Increment

UART4_RX: DMA1_Stream2 DMA request Settings:

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

Memory Data Width:	Byte

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
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	15	0
System tick timer	true	15	0
DMA1 stream2 global interrupt	true	5	0
CAN1 RX0 interrupts	true	5	0
EXTI line[15:10] interrupts	true	5	0
SDMMC1 global interrupt	true	5	0
TIM6 global interrupt, DAC1 and DAC2 underrun error interrupts	true	15	0
TIM7 global interrupt	true	5	0
DMA2 stream3 global interrupt	true	5	0
DMA2 stream6 global interrupt	true	5	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
CAN1 TX interrupts	unused		
CAN1 RX1 interrupt	unused		
CAN1 SCE interrupt	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		
TIM4 global interrupt	unused		
USART2 global interrupt	unused		
USART3 global interrupt	unused		
UART4 global interrupt	unused		
CAN2 TX interrupts	unused		
CAN2 RX0 interrupts	unused		
CAN2 RX1 interrupt	unused		
CAN2 SCE interrupt	unused		
FPU global interrupt	unused		

4.3.2. NVIC Code generation

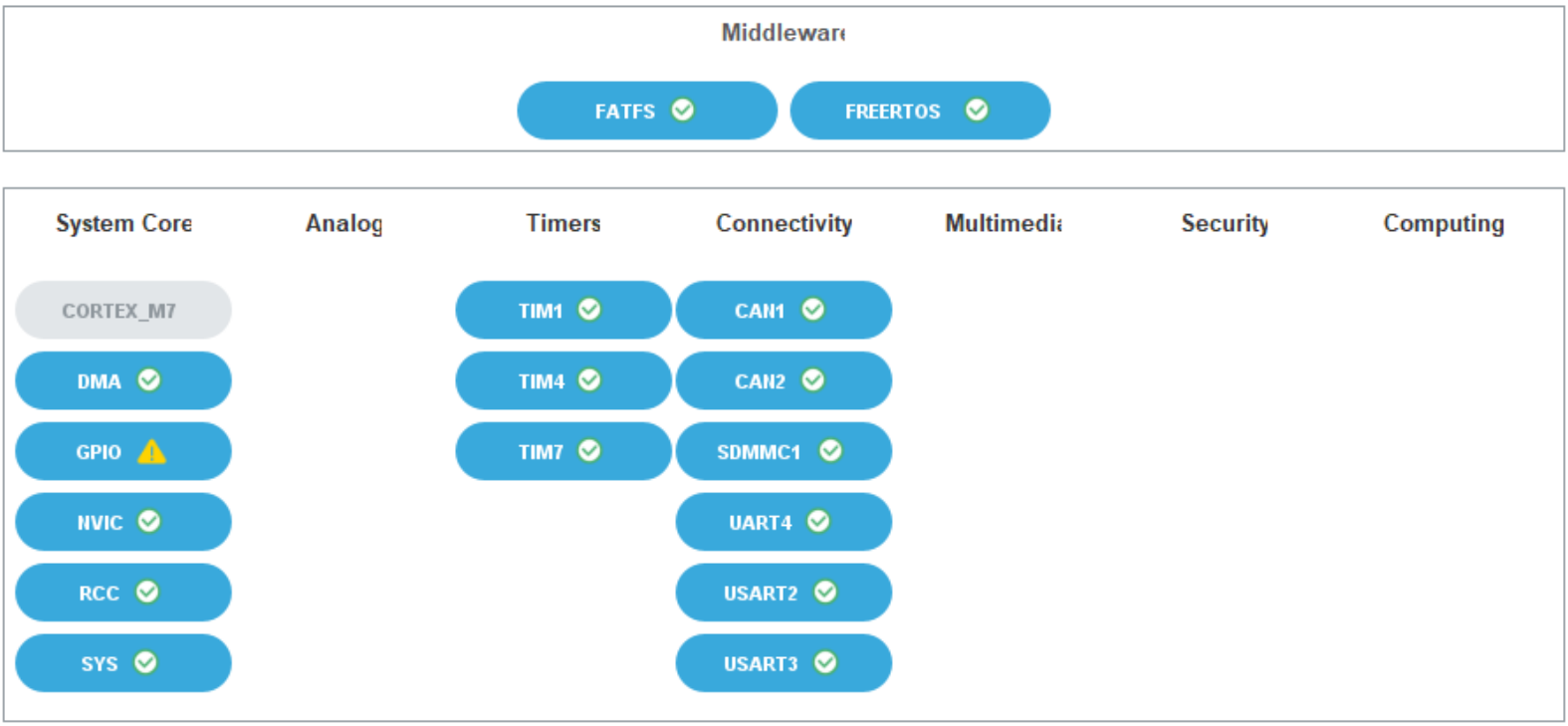
Enabled interrupt Table	Select for init sequence ordering	Generate IRQ handler	Call HAL handler
Non maskable interrupt	false	true	false
Hard fault interrupt	false	true	false
Memory management fault	false	true	false
Pre-fetch fault, memory access fault	false	true	false
Undefined instruction or illegal state	false	true	false
System service call via SWI instruction	false	false	false
Debug monitor	false	true	false
Pendable request for system service	false	false	false
System tick timer	false	false	true
DMA1 stream2 global interrupt	false	true	true
CAN1 RX0 interrupts	false	true	true
EXTI line[15:10] interrupts	false	true	true
SDMMC1 global interrupt	false	true	true
TIM6 global interrupt, DAC1 and DAC2 underrun error interrupts	false	true	true
TIM7 global interrupt	false	true	true
DMA2 stream3 global interrupt	false	true	true
DMA2 stream6 global interrupt	false	true	true

*** User modified value**

5. System Views

5.1. Category view

5.1.1. Current



6. Docs & Resources

Type	Link
BSDL files	https://www.st.com/resource/en/bsdl_model/stm32f7_bsdl.zip
IBIS models	https://www.st.com/resource/en/ibis_model/stm32f7_ibis.zip
System View Description	https://www.st.com/resource/en/svd/stm32f7-svd.zip
Presentations	https://www.st.com/resource/en/product_presentation/stm32-stm8_embedded_software_solutions.pdf
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Application Notes for related Tools & Software	https://www.st.com/resource/en/application_note/an5394-getting-started-with-projects-based-on-the-stm32l5-series-in-stm32cubeide-stmicroelectronics.pdf
Application Notes for related Tools & Software	https://www.st.com/resource/en/application_note/an5418-how-to-build-a-simple-usbpd-sink-application-with-stm32cubemx-stmicroelectronics.pdf
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Application Notes for related Tools & Software	https://www.st.com/resource/en/application_note/an5731-stm32cubemx-and-stm32cubeide-threadsafe-solution-stmicroelectronics.pdf
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Application Notes for related Tools & Software	https://www.st.com/resource/en/application_note/an6127-getting-started-with-stm32h7rx7sx-mcus-in-stm32cubeide-stmicroelectronics.pdf
Errata Sheets	https://www.st.com/resource/en/errata_sheet/es0290-stm32f74xxx-and-stm32f75xxx-device-limitations-stmicroelectronics.pdf
Datasheet	https://www.st.com/resource/en/datasheet/dm00166116.pdf
Programming Manuals	https://www.st.com/resource/en/programming_manual/pm0253-stm32f7-series-and-stm32h7-series-cortexm7-processor-programming-manual-stmicroelectronics.pdf
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