1. Description

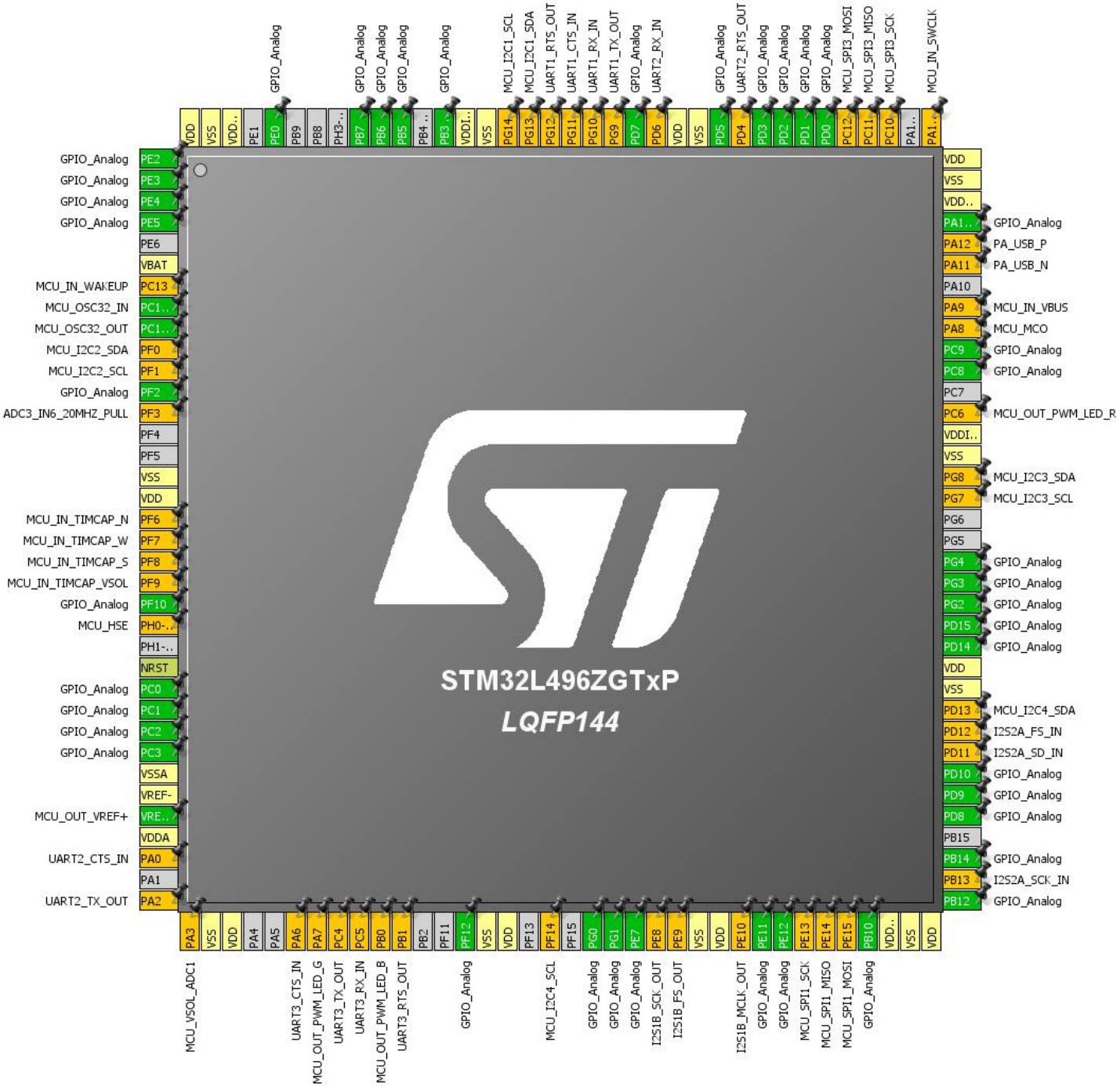
1.1. Project

Project Name	HFT-Core-Module_TrueSTUDIO_minSetup
Board Name	HFT-Core-Module_TrueSTUDIO
Generated with:	STM32CubeMX 4.26.1
Date	10/07/2018

1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x6
MCU name	STM32L496ZGTxP
MCU Package	LQFP144
MCU Pin number	144

2. Pinout Configuration



3. Pins Configuration

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	PE2 *	I/O	GPIO_Analog	
2	PE3 *	I/O	GPIO_Analog	
3	PE4 *	I/O	GPIO_Analog	
4	PE5 *	I/O	GPIO_Analog	
6	VBAT	Power		
7	PC13 **	I/O	SYS_WKUP2	MCU_IN_WAKEUP
8	PC14-OSC32_IN (PC14)	I/O	RCC_OSC32_IN	MCU_OSC32_IN
9	PC15-OSC32_OUT (PC15)	I/O	RCC_OSC32_OUT	MCU_OSC32_OUT
10	PF0 **	I/O	I2C2_SDA	MCU_I2C2_SDA
11	PF1 **	I/O	I2C2_SCL	MCU_I2C2_SCL
12	PF2 *	I/O	GPIO_Analog	
13	PF3 **	I/O	ADC3_IN6	ADC3_IN6_20MHZ_PULL
16	VSS	Power		
17	VDD	Power		
18	PF6 **	I/O	TIM5_CH1	MCU_IN_TIMCAP_N
19	PF7 **	I/O	TIM5_CH2	MCU_IN_TIMCAP_W
20	PF8 **	I/O	TIM5_CH3	MCU_IN_TIMCAP_S
21	PF9 **	I/O	TIM5_CH4	MCU_IN_TIMCAP_VSOL
22	PF10 *	I/O	GPIO_Analog	
23	PH0-OSC_IN (PH0) **	I/O	RCC_OSC_IN	MCU_HSE
25	NRST	Reset		
26	PC0 *	I/O	GPIO_Analog	
27	PC1 *	I/O	GPIO_Analog	
28	PC2 *	I/O	GPIO_Analog	
29	PC3 *	I/O	GPIO_Analog	
30	VSSA	Power		
31	VREF-	Power		
32	VREF+	MonoIO	VREFBUF_OUT	MCU_OUT_VREF+
33	VDDA	Power		
34	PA0 **	I/O	USART2_CTS	UART2_CTS_IN
36	PA2 **	I/O	USART2_TX	UART2_TX_OUT
37	PA3 **	I/O	ADC2_IN8, ADC1_IN8	MCU_VSOL_ADC1
38	VSS	Power		
39	VDD	Power		
42	PA6 **	I/O	USART3_CTS	UART3_CTS_IN
43	PA7 **	I/O	TIM3_CH2	MCU_OUT_PWM_LED_G

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
44	PC4 **	I/O	USART3_TX	UART3_TX_OUT
45	PC5 **	I/O	USART3_RX	UART3_RX_IN
46	PB0 **	I/O	TIM3_CH3	MCU_OUT_PWM_LED_B
47	PB1 **	I/O	USART3_RTS	UART3_RTS_OUT
50	PF12 *	I/O	GPIO_Analog	
51	VSS	Power		
52	VDD	Power		
54	PF14 **	I/O	I2C4_SCL	MCU_I2C4_SCL
56	PG0 *	I/O	GPIO_Analog	
57	PG1 *	I/O	GPIO_Analog	
58	PE7 *	I/O	GPIO_Analog	
59	PE8 **	I/O	SAI1_SCK_B	I2S1B_SCK_OUT
60	PE9 **	I/O	SAI1_FS_B	I2S1B_FS_OUT
61	VSS	Power		
62	VDD	Power		
63	PE10 **	I/O	SAI1_MCLK_B	I2S1B_MCLK_OUT
64	PE11 *	I/O	GPIO_Analog	
65	PE12 *	I/O	GPIO_Analog	
66	PE13 **	I/O	SPI1_SCK	MCU_SPI1_SCK
67	PE14 **	I/O	SPI1_MISO	MCU_SPI1_MISO
68	PE15 **	I/O	SPI1_MOSI	MCU_SPI1_MOSI
69	PB10 *	I/O	GPIO_Analog	
70	VDD12	Power		
71	VSS	Power		
72	VDD	Power		
73	PB12 *	I/O	GPIO_Analog	
74	PB13 **	I/O	SAI2_SCK_A	I2S2A_SCK_IN
75	PB14 *	I/O	GPIO_Analog	
77	PD8 *	I/O	GPIO_Analog	
78	PD9 *	I/O	GPIO_Analog	
79	PD10 *	I/O	GPIO_Analog	
80	PD11 **	I/O	SAI2_SD_A	I2S2A_SD_IN
81	PD12 **	I/O	SAI2_FS_A	I2S2A_FS_IN
82	PD13 **	I/O	I2C4_SDA	MCU_I2C4_SDA
83	VSS	Power		
84	VDD	Power		
85	PD14 *	I/O	GPIO_Analog	
86	PD15 *	I/O	GPIO_Analog	
87	PG2 *	I/O	GPIO_Analog	

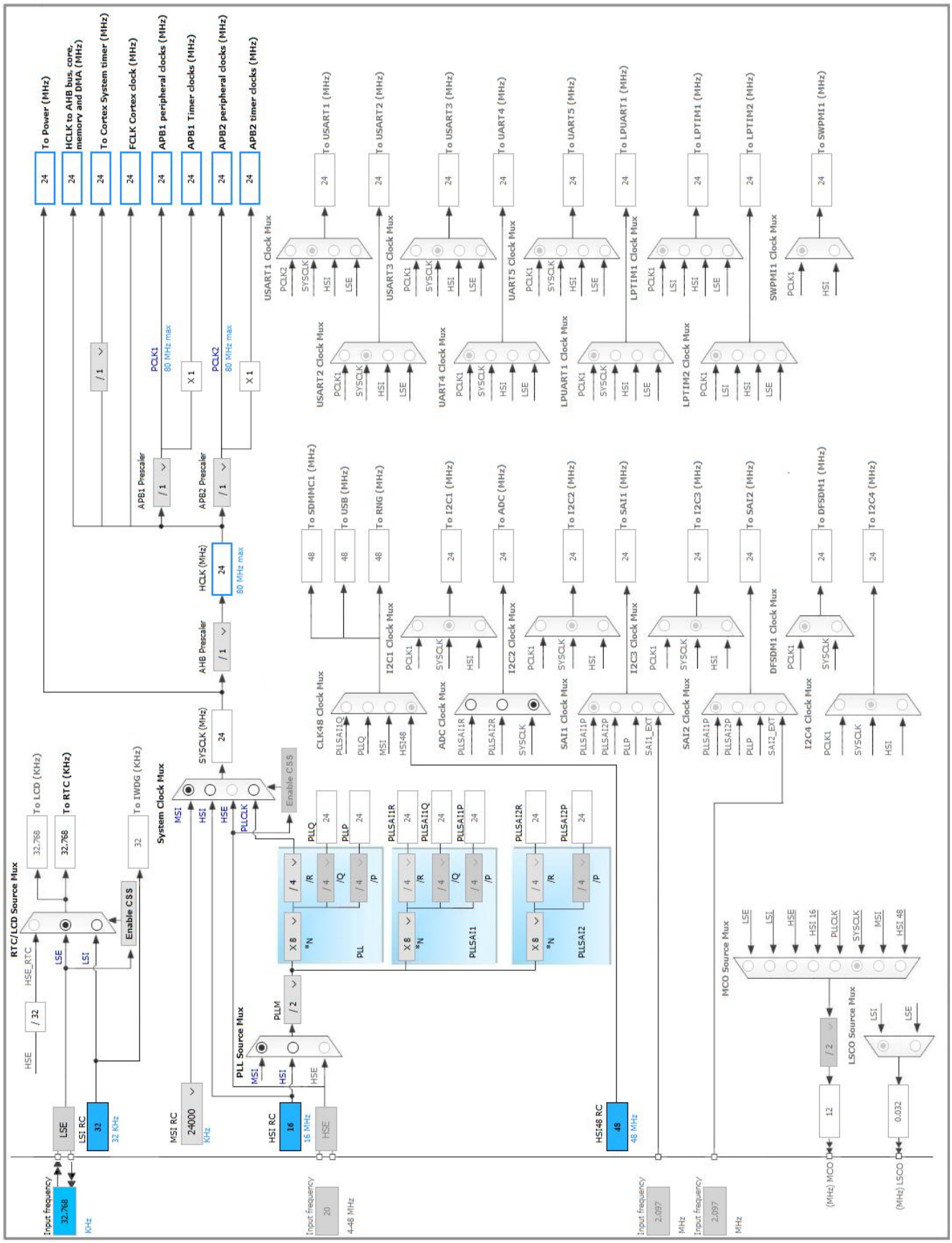
Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
88	PG3 *	I/O	GPIO_Analog	
89	PG4 *	I/O	GPIO_Analog	
92	PG7 **	I/O	I2C3_SCL	MCU_I2C3_SCL
93	PG8 **	I/O	I2C3_SDA	MCU_I2C3_SDA
94	VSS	Power		
95	VDDIO2	Power		
96	PC6 **	I/O	TIM3_CH1	MCU_OUT_PWM_LED_R
98	PC8 *	I/O	GPIO_Analog	
99	PC9 *	I/O	GPIO_Analog	
100	PA8 **	I/O	RCC_MCO	MCU_MCO
101	PA9 **	I/O	USB_OTG_FS_VBUS	MCU_IN_VBUS
103	PA11 **	I/O	USB_OTG_FS_DM	PA_USB_N
104	PA12 **	I/O	USB_OTG_FS_DP	PA_USB_P
105	PA13 (JTMS/SWDIO) *	I/O	GPIO_Analog	
106	VDDUSB	Power		
107	VSS	Power		
108	VDD	Power		
109	PA14 (JTCK/SWCLK) **	I/O	SYS_JTCK-SWCLK	MCU_IN_SWCLK
111	PC10 **	I/O	SPI3_SCK	MCU_SPI3_SCK
112	PC11 **	I/O	SPI3_MISO	MCU_SPI3_MISO
113	PC12 **	I/O	SPI3_MOSI	MCU_SPI3_MOSI
114	PD0 *	I/O	GPIO_Analog	
115	PD1 *	I/O	GPIO_Analog	
116	PD2 *	I/O	GPIO_Analog	
117	PD3 *	I/O	GPIO_Analog	
118	PD4 **	I/O	USART2_RTS	UART2_RTS_OUT
119	PD5 *	I/O	GPIO_Analog	
120	VSS	Power		
121	VDD	Power		
122	PD6 **	I/O	USART2_RX	UART2_RX_IN
123	PD7 *	I/O	GPIO_Analog	
124	PG9 **	I/O	USART1_TX	UART1_TX_OUT
125	PG10 **	I/O	USART1_RX	UART1_RX_IN
126	PG11 **	I/O	USART1_CTS	UART1_CTS_IN
127	PG12 **	I/O	USART1_RTS	UART1_RTS_OUT
128	PG13 **	I/O	I2C1_SDA	MCU_I2C1_SDA
129	PG14 **	I/O	I2C1_SCL	MCU_I2C1_SCL
130	VSS	Power		
131	VDDIO2	Power		

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
132	PB3 (JTDO/TRACESWO) *	I/O	GPIO_Analog	
134	PB5 *	I/O	GPIO_Analog	
135	PB6 *	I/O	GPIO_Analog	
136	PB7 *	I/O	GPIO_Analog	
140	PE0 *	I/O	GPIO_Analog	
142	VDD12	Power		
143	VSS	Power		
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



5. IPs and Middleware Configuration

5.1. RCC

Low Speed Clock (LSE) : Crystal/Ceramic Resonator

5.1.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	**Enabled ***
Data Cache	Enabled
Flash Latency(WS)	3 WS (4 CPU cycle)

RCC Parameters:

HSI Calibration Value	64
MSI Calibration Value	0
MSI Auto Calibration	Disabled
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000
LSE Drive Capability	LSE oscillator low drive capability

Power Parameters:

Power Regulator Voltage Scale	**Power Regulator Voltage Scale 2 ***

5.2. RTC

mode: Activate Clock Source

mode: Activate Calendar

Alarm A: Internal Alarm A

Alarm B: Internal Alarm B

WakeUp: Internal WakeUp

5.2.1. Parameter Settings:

General:

Hour Format	Hourformat 24
Asynchronous Predivider value	**31 ***
Synchronous Predivider value	**1023 ***

Calendar Time:

Data Format	BCD data format
Hours	0

Minutes	0
Seconds	0
Day Light Saving: value of hour adjustment	Daylightsaving None
Store Operation	Storeoperation Reset

Calendar Date:

Week Day	Monday
Month	January
Date	1
Year	0

Alarm A:

Hours	0
Minutes	0
Seconds	0
Sub Seconds	0
Alarm Mask Date Week day	Disable
Alarm Mask Hours	Disable
Alarm Mask Minutes	Disable
Alarm Mask Seconds	Disable
Alarm Sub Second Mask	All Alarm SS fields are masked.
Alarm Date Week Day Sel	Date
Alarm Date	1

Alarm B:

Hours	0
Minutes	0
Seconds	0
Sub Seconds	0
Alarm Mask Date Week day	Disable
Alarm Mask Hours	Disable
Alarm Mask Minutes	Disable
Alarm Mask Seconds	Disable
Alarm Sub Second Mask	All Alarm SS fields are masked.
Alarm Date Week Day Sel	Date
Alarm Date	1

Wake UP:

Wake Up Clock	RTCCLK / 16
Wake Up Counter	0

5.3. SYS

Power Voltage Detector In: Power Voltage Detector In (Internal analog voltage)

VREFBUF Mode: Internal voltage reference

Timebase Source: TIM2

5.3.1. Parameter Settings:

Programmable_Voltage_Detector_Settings:

PVD detection Level	**PWR PVD LEVEL 5 (2.8 V) ***
PWR PVD Mode	basic mode is used

Voltage_Reference_Buffer_Settings:

Trimming Mode	**User Trimming ***
Trimming Value	**5 ***
Internal Voltage reference scale	SCALE 0: around 2.048 V

5.4. FREERTOS

mode: Enabled

5.4.1. Config parameters:

Versions:

FreeRTOS version	9.0.0
CMSIS-RTOS version	1.02

Kernel settings:

USE_PREEMPTION	Enabled
CPU_CLOCK_HZ	SystemCoreClock
TICK_RATE_HZ	1000
MAX_PRIORITIES	7
MINIMAL_STACK_SIZE	128
MAX_TASK_NAME_LEN	**32 ***
USE_16_BIT_TICKS	Disabled
IDLE_SHOULD_YIELD	Enabled
USE_MUTEXES	Enabled
USE_RECURSIVE_MUTEXES	Disabled
USE_COUNTING_SEMAPHORES	**Enabled ***
QUEUE_REGISTRY_SIZE	**64 ***
USE_APPLICATION_TASK_TAG	**Enabled ***
ENABLE_BACKWARD_COMPATIBILITY	**Disabled ***
USE_PORT_OPTIMISED_TASK_SELECTION	Enabled
USE_TICKLESS_IDLE	Disabled
USE_TASK_NOTIFICATIONS	Enabled

Memory management settings:

Memory Allocation	Dynamic
TOTAL_HEAP_SIZE	**0x8000 ***
Memory Management scheme	heap_4

Hook function related definitions:

USE_IDLE_HOOK	**Enabled ***
USE_TICK_HOOK	Disabled
USE_MALLOC_FAILED_HOOK	**Enabled ***
USE_DAEMON_TASK_STARTUP_HOOK	Disabled
CHECK_FOR_STACK_OVERFLOW	**Option1 ***

Run time and task stats gathering related definitions:

GENERATE_RUN_TIME_STATS	**Enabled ***
USE_TRACE_FACILITY	**Enabled ***
USE_STATS_FORMATTING_FUNCTIONS	**Enabled ***

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	**16 ***
TIMER_TASK_STACK_DEPTH	256

Interrupt nesting behaviour configuration:

LIBRARY_LOWEST_INTERRUPT_PRIORITY	15
LIBRARY_MAX_SYSCALL_INTERRUPT_PRIORITY	5

5.4.2. Include parameters:

Include definitions:

vTaskPrioritySet	Enabled
uxTaskPriorityGet	Enabled
vTaskDelete	**Disabled ***
vTaskCleanUpResources	Disabled
vTaskSuspend	Enabled
vTaskDelayUntil	**Enabled ***
vTaskDelay	Enabled
xTaskGetSchedulerState	Enabled
xTaskResumeFromISR	Enabled
xQueueGetMutexHolder	**Enabled ***

xSemaphoreGetMutexHolder	**Enabled ***
pcTaskGetTaskName	**Enabled ***
uxTaskGetStackHighWaterMark	**Enabled ***
xTaskGetCurrentTaskHandle	**Enabled ***
eTaskGetState	**Enabled ***
xEventGroupSetBitFromISR	**Enabled ***
xTimerPendFunctionCall	**Enabled ***
xTaskAbortDelay	Disabled
xTaskGetHandle	**Enabled ***

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
RCC	PC14-OSC32_IN (PC14)	RCC_OSC32_IN	n/a	n/a	n/a	MCU_OSC32_IN
	PC15-OSC32_OUT (PC15)	RCC_OSC32_OUT	n/a	n/a	n/a	MCU_OSC32_OUT
SYS	VREF+	VREFBUF_OUT	n/a	n/a	n/a	MCU_OUT_VREF+
Single Mapped Signals	PC13	SYS_WKUP2	n/a	n/a	n/a	MCU_IN_WAKEUP
	PF0	I2C2_SDA	Alternate Function Open Drain	Pull-up	Low	MCU_I2C2_SDA
	PF1	I2C2_SCL	Alternate Function Open Drain	Pull-up	Low	MCU_I2C2_SCL
	PF3	ADC3_IN6	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	ADC3_IN6_20MHZ_PULL
	PF6	TIM5_CH1	Alternate Function Push Pull	**Pull-down ***	Low	MCU_IN_TIMCAP_N
	PF7	TIM5_CH2	Alternate Function Push Pull	**Pull-down ***	Low	MCU_IN_TIMCAP_W
	PF8	TIM5_CH3	Alternate Function Push Pull	**Pull-down ***	Low	MCU_IN_TIMCAP_S
	PF9	TIM5_CH4	Alternate Function Push Pull	**Pull-down ***	Low	MCU_IN_TIMCAP_VSOL
	PH0-OSC_IN (PH0)	RCC_OSC_IN	n/a	**n/a**	n/a	MCU_HSE
	PA0	USART2_CTS	Alternate Function Push Pull	**Pull-down ***	Low	UART2_CTS_IN
	PA2	USART2_TX	Alternate Function Push Pull	**Pull-up ***	Low	UART2_TX_OUT
	PA3	ADC2_IN8, ADC1_IN8	Analog mode for ADC conversion	No pull-up and no pull-down	n/a	MCU_VSOL_ADC1
	PA6	USART3_CTS	Alternate Function Push Pull	**Pull-down ***	Low	UART3_CTS_IN
	PA7	TIM3_CH2	Alternate Function Push Pull	**Pull-down ***	Low	MCU_OUT_PWM_LED_G
	PC4	USART3_TX	Alternate Function Push Pull	**Pull-up ***	Low	UART3_TX_OUT
	PC5	USART3_RX	Alternate Function Push Pull	**Pull-up ***	Low	UART3_RX_IN
	PB0	TIM3_CH3	Alternate Function Push Pull	**Pull-down ***	Low	MCU_OUT_PWM_LED_B
	PB1	USART3_RTS	Alternate Function Push Pull	**Pull-down ***	Low	UART3_RTS_OUT
	PF14	I2C4_SCL	Alternate Function Open Drain	Pull-up	Low	MCU_I2C4_SCL
	PE8	SAI1_SCK_B	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S1B_SCK_OUT
	PE9	SAI1_FS_B	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S1B_FS_OUT

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PE10	SAI1_MCLK_B	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S1B_MCLK_OUT
	PE13	SPI1_SCK	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI1_SCK
	PE14	SPI1_MISO	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI1_MISO
	PE15	SPI1_MOSI	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI1_MOSI
	PB13	SAI2_SCK_A	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S2A_SCK_IN
	PD11	SAI2_SD_A	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S2A_SD_IN
	PD12	SAI2_FS_A	Alternate Function Push Pull	**Pull-down ***	**Medium ***	I2S2A_FS_IN
	PD13	I2C4_SDA	Alternate Function Open Drain	Pull-up	Low	MCU_I2C4_SDA
	PG7	I2C3_SCL	Alternate Function Open Drain	Pull-up	Low	MCU_I2C3_SCL
	PG8	I2C3_SDA	Alternate Function Open Drain	Pull-up	Low	MCU_I2C3_SDA
	PC6	TIM3_CH1	Alternate Function Push Pull	**Pull-down ***	Low	MCU_OUT_PWM_LED_R
	PA8	RCC_MCO	Alternate Function Push Pull	**Pull-down ***	Low	MCU_MCO
	PA9	USB_OTG_FS_VBUS	n/a	**n/a**	n/a	MCU_IN_VBUS
	PA11	USB_OTG_FS_DM	Alternate Function Push Pull	**Pull-down ***	**High ***	PA_USB_N
	PA12	USB_OTG_FS_DP	Alternate Function Push Pull	**Pull-down ***	**High ***	PA_USB_P
	PA14 (JTCK/SWCLK)	SYS_JTCK-SWCLK	n/a	**n/a**	**n/a**	MCU_IN_SWCLK
	PC10	SPI3_SCK	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI3_SCK
	PC11	SPI3_MISO	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI3_MISO
	PC12	SPI3_MOSI	Alternate Function Push Pull	**Pull-down ***	**Very High ***	MCU_SPI3_MOSI
	PD4	USART2_RTS	Alternate Function Push Pull	**Pull-down ***	Low	UART2_RTS_OUT
	PD6	USART2_RX	Alternate Function Push Pull	**Pull-up ***	Low	UART2_RX_IN
	PG9	USART1_TX	Alternate Function Push Pull	**Pull-up ***	Low	UART1_TX_OUT
	PG10	USART1_RX	Alternate Function Push Pull	**Pull-up ***	Low	UART1_RX_IN
	PG11	USART1_CTS	Alternate Function Push Pull	**Pull-down ***	Low	UART1_CTS_IN
	PG12	USART1_RTS	Alternate Function Push Pull		Low	UART1_RTS_OUT

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
				Pull-down *		
	PG13	I2C1_SDA	Alternate Function Open Drain	Pull-up	Low	MCU_I2C1_SDA
	PG14	I2C1_SCL	Alternate Function Open Drain	Pull-up	Low	MCU_I2C1_SCL
GPIO	PE2	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE3	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE4	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE5	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PF2	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PF10	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC0	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC1	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC2	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC3	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PF12	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PG0	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PG1	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE7	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE11	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE12	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB10	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB12	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB14	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD8	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD9	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD10	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD14	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD15	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PG2	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PG3	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PG4	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC8	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PC9	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PA13 (JTMS/SWDIO)	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD0	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD1	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD2	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD3	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PD5	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PD7	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB3 (JTDO/TRACESWO)	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB5	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB6	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PB7	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	
	PE0	GPIO_Analog	Analog mode	No pull-up and no pull-down	n/a	

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	15	0
System tick timer	true	15	0
TIM2 global interrupt	true	0	0
PVD/PVM1/PVM2/PVM3/PVM4 interrupts through EXTI lines 16/35/36/37/38	unused		
RTC wake-up interrupt through EXTI line 20	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
RTC alarm interrupt through EXTI line 18	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x6
MCU	STM32L496ZGTxP
Datasheet	029173_Rev2

7.2. Parameter Selection

Temperature	25
Vdd	3.6

7.3. SMPS Selection

SMPS	SMPS1_User
Vin	3.3 V
Vout	1.2 V
OffCurrent	250.0 nA
QCurrent	500.0 nA
Efficiency	85 %

7.4. Sequence

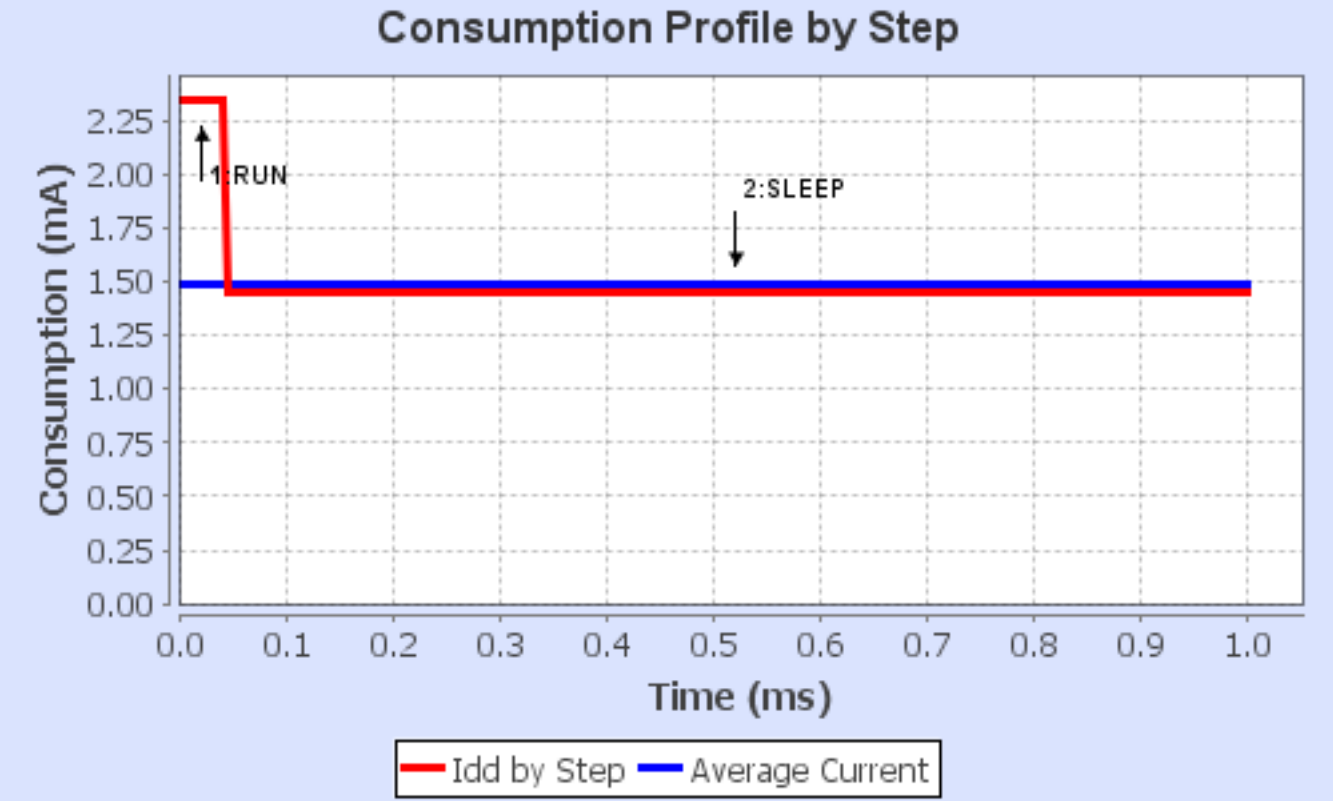
Step	Step1	Step2

Mode	RUN	SLEEP
SMPS	CONNECTED	CONNECTED
Vdd	3.6	3.6
Voltage Source	Battery	Battery
Range	Range2-Medium	Range2-Medium
Fetch Type	FLASH	FLASH
Clock Configuration	HSE BYP ART Flash-ON	HSE BYP ART Flash-ON
Clock Source Frequency	24 MHz	24 MHz
CPU Frequency	24 MHz	24 MHz
Peripherals	ADC1:fs_10_ksps ADC3:fs_10_ksps CRC DFSDM1 GPIOA GPIOB GPIOC GPIOD GPIOE GPIOF GPIOG GPIOH I2C1 I2C2 I2C3 I2C4 RNG RTC SAI1 SAI2 SPI1 SPI3 SYS-VREFBUF/COMP1:COMP_High_Speed-Square_VREFBUF_OFF TIM3 TIM5 TIM16 TIM17 USART1 USART2 USART3 USB_OTG_FS	ADC1:fs_10_ksps ADC3:fs_10_ksps CRC DFSDM1 GPIOA GPIOB GPIOC GPIOD GPIOE GPIOF GPIOG GPIOH I2C1 I2C2 I2C3 I2C4 RNG RTC SAI1 SAI2 SPI1 SPI3 SYS-VREFBUF/COMP1:COMP_High_Speed-Square_VREFBUF_OFF TIM3 TIM5 TIM16 TIM17 USART1 USART2 USART3 USB_OTG_FS
Additional Cons.	0 mA	0 mA
Average Current	2.34 mA	1.45 mA
Duration	0.04 ms	0.96 ms
DMIPS	0.0	0.0
Ta Max	104.73	104.83
Category	Measurements	Measurements

7.5. RESULTS

Sequence Time	1 ms	Average Current	1.49 mA
Battery Life	0	Average DMIPS	30.0 DMIPS

7.6. Chart


Consumption Profile by Step
Consumption (mA)
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
1:RUN
2:SLEEP
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

8. Software Project

8.1. Project Settings

Name	Value
Project Name	HFT-Core-Module_TrueSTUDIO_minSetup
Project Folder	Z:\nfs_ds_nfs\git\HFT-Core-Module__SW\SW\TrueSTUDIO\HFT-Core-
Toolchain / IDE	TrueSTUDIO
Firmware Package Name and Version	STM32Cube FW_L4 V1.12.0

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	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

9. Software Pack Report