1. Description

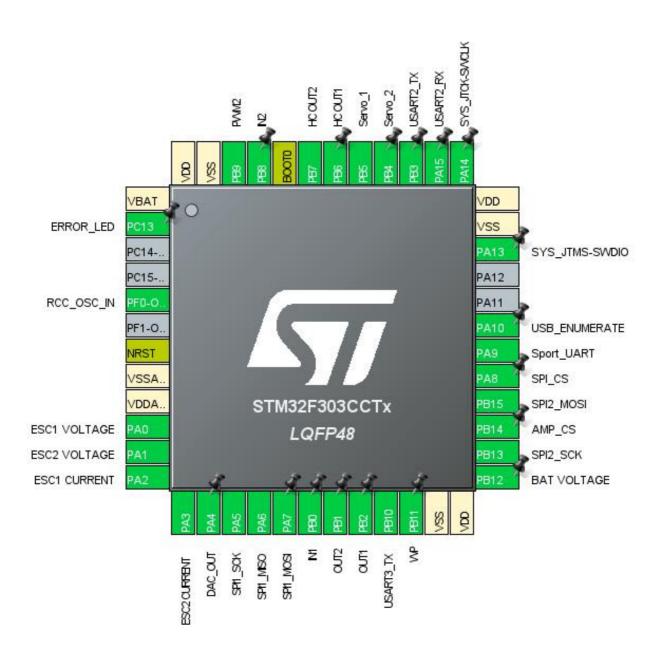
1.1. Project

Project Name	RCTelemetry
Board Name	custom
Generated with:	STM32CubeMX 5.4.0
Date	02/18/2020

1.2. MCU

MCU Series	STM32F3
MCU Line	STM32F303
MCU name	STM32F303CCTx
MCU Package	LQFP48
MCU Pin number	48

2. Pinout Configuration



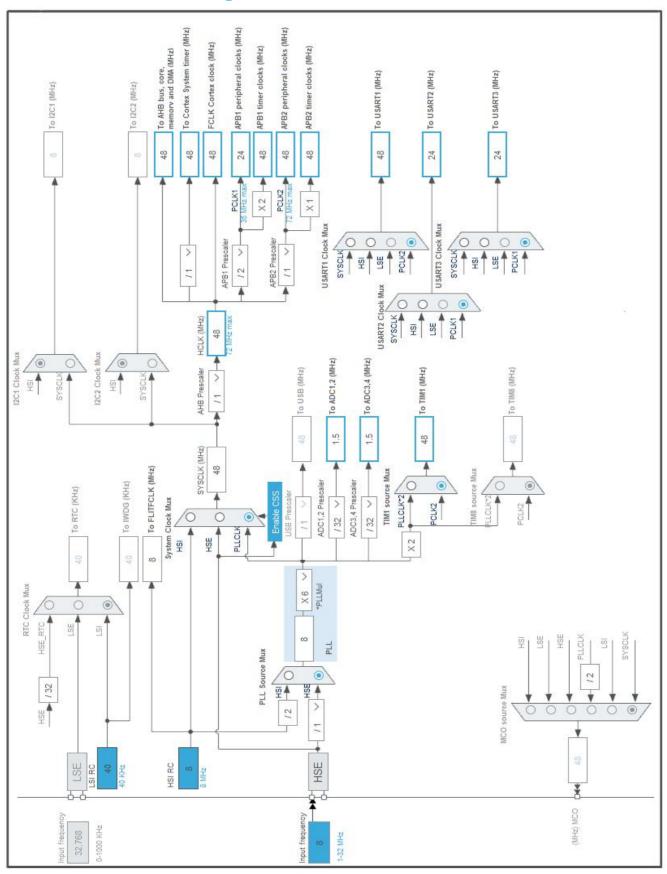
3. Pins Configuration

Pin Number				Label
LQFP48	(function after reset)		Function(s)	
1	VBAT	Power		
2	PC13 *	I/O	GPIO_Output	ERROR_LED
5	PF0-OSC_IN	I/O	RCC_OSC_IN	
7	NRST	Reset		
8	VSSA/VREF-	Power		
9	VDDA/VREF+	Power		
10	PA0	I/O	ADC1_IN1	ESC1 VOLTAGE
11	PA1	I/O	ADC1_IN2	ESC2 VOLTAGE
12	PA2	I/O	ADC1_IN3	ESC1 CURRENT
13	PA3	I/O	ADC1_IN4	ESC2 CURRENT
14	PA4	I/O	DAC_OUT1	DAC_OUT
15	PA5	I/O	SPI1_SCK	
16	PA6	I/O	SPI1_MISO	
17	PA7	I/O	SPI1_MOSI	
18	PB0 *	I/O	GPIO_Input	IN1
19	PB1 *	I/O	GPIO_Output	OUT2
20	PB2 *	I/O	GPIO_Output	OUT1
21	PB10	I/O	USART3_TX	
22	PB11 *	I/O	GPIO_Output	WP
23	VSS	Power		
24	VDD	Power		
25	PB12	I/O	ADC4_IN3	BAT VOLTAGE
26	PB13	I/O	SPI2_SCK	
27	PB14 *	I/O	GPIO_Output	AMP_CS
28	PB15	I/O	SPI2_MOSI	
29	PA8 *	I/O	GPIO_Output	SPI_CS
30	PA9	I/O	USART1_TX	Sport_UART
31	PA10 *	I/O	GPIO_Output	USB_ENUMERATE
34	PA13	I/O	SYS_JTMS-SWDIO	
35	VSS	Power		
36	VDD	Power		
37	PA14	I/O	SYS_JTCK-SWCLK	
38	PA15	I/O	USART2_RX	
39	PB3	I/O	USART2_TX	
40	PB4	I/O	TIM16_CH1	Servo_2
41	PB5	I/O	TIM17_CH1	Servo_1

Pin Number LQFP48	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
42	PB6	I/O	TIM4_CH1	HC OUT1
43	PB7	I/O	TIM4_CH2	HC OUT2
44	воото	Boot		
45	PB8 *	I/O	GPIO_Input	IN2
46	PB9	I/O	TIM4_CH4	PWM2
47	VSS	Power		
48	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	RCTelemetry	
Project Folder	C:\Users\akiku\GIT\rctelemetry\sw	
Toolchain / IDE	STM32CubeIDE	
Firmware Package Name and Version	STM32Cube FW_F3 V1.11.0	

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
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power	No
consumption)	

6. Power Consumption Calculator report

6.1. Microcontroller Selection

Series	STM32F3
Line	STM32F303
MCU	STM32F303CCTx
Datasheet	023353_Rev13

6.2. Parameter Selection

Temperature	25
Vdd	3.6

7. IPs and Middleware Configuration 7.1. ADC1

IN1: IN1 Single-ended IN2: IN2 Single-ended IN3: IN3 Single-ended

mode: IN4

mode: Vrefint Channel 7.1.1. Parameter Settings:

ADCs_Common_Settings:

Mode Independent mode

ADC_Settings:

Clock Prescaler ADC Asynchronous clock mode

Resolution ADC 12-bit resolution
Data Alignment Right alignment

Scan Conversion Mode Enabled

Continuous Conversion Mode Enabled *

Discontinuous Conversion Mode Disabled
DMA Continuous Requests Disabled

End Of Conversion Selection End of single conversion

Overrun behaviour Overrun data overwritten

Low Power Auto Wait Disabled

ADC_Regular_ConversionMode:

Enable Regular Conversions Enable

Number Of Conversion 5 *

External Trigger Conversion Source Regular Conversion launched by software

External Trigger Conversion Edge None
Rank 1

Channel Channel 1

Sampling Time 7.5 Cycles *

Offset Number No offset
Offset 0
Rank 2 *

Channel 2 *

Sampling Time 7.5 Cycles *

Offset Number No offset
Offset 0
Rank 3 *

Channel 3 *

Sampling Time 7.5 Cycles *

Offset Number No offset

Offset 0
Rank **4** *

Channel 4 *

Sampling Time 7.5 Cycles *

Offset Number No offset

Offset 0
Rank 5 *

Channel Vrefint *

Sampling Time 1.5 Cycles
Offset Number No offset

Offset 0

ADC_Injected_ConversionMode:

Enable Injected Conversions Enable
Number Of Conversions 0

Analog Watchdog 1:

Enable Analog WatchDog1 Mode false

Analog Watchdog 2:

Enable Analog WatchDog2 Mode false

Analog Watchdog 3:

Enable Analog WatchDog3 Mode false

7.2. ADC4

IN3: IN3 Single-ended

7.2.1. Parameter Settings:

ADCs_Common_Settings:

Mode Independent mode

ADC_Settings:

Clock Prescaler ADC Asynchronous clock mode

Resolution ADC 12-bit resolution

Data Alignment Right alignment

Scan Conversion Mode Disabled

Continuous Conversion Mode Enabled *

Discontinuous Conversion Mode Disabled
DMA Continuous Requests Disabled

End Of Conversion Selection End of single conversion

Overrun behaviour Overrun data overwritten

Low Power Auto Wait Disabled

ADC_Regular_ConversionMode:

Enable Regular Conversions Enable

Number Of Conversion 1

External Trigger Conversion Source Regular Conversion launched by software

External Trigger Conversion Edge None Rank 1

Channel Channel 3
Sampling Time 1.5 Cycles
Offset Number No offset

Offset 0

ADC_Injected_ConversionMode:

Enable Injected Conversions Enable

Number Of Conversions 0

Analog Watchdog 1:

Enable Analog WatchDog1 Mode false

Analog Watchdog 2:

Enable Analog WatchDog2 Mode false

Analog Watchdog 3:

Enable Analog WatchDog3 Mode false

7.3. CRC

mode: Activated

7.3.1. Parameter Settings:

Basic Parameters:

Default Polynomial State Enable

Default Init Value State Enable

Advanced Parameters:

Input Data Inversion Mode None
Output Data Inversion Mode Disable
Input Data Format Bytes

7.4. DAC

mode: OUT1 Configuration 7.4.1. Parameter Settings:

DAC Out1 Settings:

Output Buffer Enable

Trigger Out event *

Wave generation mode Disabled

7.5. GPIO

7.6. RCC

High Speed Clock (HSE): BYPASS Clock Source

7.6.1. Parameter Settings:

System Parameters:

VDD voltage (V) 3.3
Prefetch Buffer Enabled

Flash Latency(WS) 1 WS (2 CPU cycle)

RCC Parameters:

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

7.7. SPI1

Mode: Full-Duplex Master 7.7.1. Parameter Settings:

Basic Parameters:

Frame Format Motorola

Data Size 8 Bits *

First Bit MSB First

Clock Parameters:

Prescaler (for Baud Rate)

Baud Rate 12.0 MBits/s *

Clock Polarity (CPOL) Low

Clock Phase (CPHA) 1 Edge

Advanced Parameters:

CRC Calculation Disabled

NSSP Mode Enabled

NSS Signal Type Software

7.8. SPI2

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) 2

Baud Rate 12.0 MBits/s *

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

Advanced Parameters:

CRC Calculation Disabled

NSSP Mode Enabled

NSS Signal Type Software

7.9. SYS

Debug: Serial Wire

Timebase Source: TIM7

7.10. TIM1

Clock Source: Internal Clock 7.10.1. 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 - 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)

7.11. TIM2

Clock Source : Internal Clock 7.11.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value) 24000 *

Counter Mode Up

Counter Period (AutoReload Register - 32 bits value) 2000 *

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 TRGO Update Event *

7.12. TIM3

Clock Source: Internal Clock 7.12.1. 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 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)

7.13. TIM4

Clock Source: Internal Clock
Channel1: PWM Generation CH1
Channel2: PWM Generation CH2
Channel4: PWM Generation CH4

7.13.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value) 3-1 *
Counter Mode Up

Counter Period (AutoReload Register - 16 bits value) 1600-1 *

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 TRGO Reset (UG bit from TIMx_EGR)

Clear Input:

Clear Input Source Disable

PWM Generation Channel 1:

Mode PWM mode 1

Pulse (16 bits value) 0

Output compare preload Enable

Fast Mode Disable

CH Polarity High

PWM Generation Channel 2:

Mode PWM mode 1

Pulse (16 bits value) 0
Output compare preload Enable
Fast Mode Disable
CH Polarity High

PWM Generation Channel 4:

Mode PWM mode 1

Pulse (16 bits value) 0
Output compare preload Enable
Fast Mode Disable
CH Polarity High

7.14. TIM6

mode: Activated

7.14.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)

Counter Mode

Counter Period (AutoReload Register - 16 bits value)

6453

Counter Period (AutoReload Register - 16 bits value) 64535 *
auto-reload preload Enable *

Trigger Output (TRGO) Parameters:

Trigger Event Selection Reset (UG bit from TIMx_EGR)

7.15. TIM15

mode: Clock Source

7.15.1. 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

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)

7.16. TIM16

mode: Activated

Channel1: Output Compare CH1

7.16.1. 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

Repetition Counter (RCR - 8 bits value) 0
auto-reload preload Disable

Break And Dead Time management - BRK Configuration:

BRK State Disable
BRK Polarity High
BRK Filter (4 bits value) 0

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 (OSSI) Disable

Lock Configuration Off

Output Compare Channel 1:

Mode Frozen (used for Timing base)

Pulse (16 bits value) 0

Output compare preload Disable

CH Polarity High

CH Idle State Reset

7.17. TIM17

mode: Activated

Channel1: Output Compare CH1

7.17.1. 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
auto-reload preload Disable

Break And Dead Time management - BRK Configuration:

BRK State Disable
BRK Polarity High
BRK Filter (4 bits value) 0

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 (OSSI) Disable
Lock Configuration Off

Output Compare Channel 1:

Mode Frozen (used for Timing base)

Pulse (16 bits value) 0

Output compare preload Disable

CH Polarity High

CH Idle State Reset

7.18. USART1

Mode: Single Wire (Half-Duplex) 7.18.1. Parameter Settings:

Basic Parameters:

Baud Rate **57600** *

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 Enable * **RX Pin Active Level Inversion** Enable * Disable **Data Inversion** Disable TX and RX Pins Swapping Enable Overrun DMA on RX Error Enable MSB First Disable

7.19. USART2

Mode: Asynchronous

7.19.1. 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 Disable TX Pin Active Level Inversion RX Pin Active Level Inversion Disable Disable **Data Inversion** Disable TX and RX Pins Swapping Overrun Fnable DMA on RX Error Enable MSB First Disable

7.20. USART3

Mode: Single Wire (Half-Duplex) 7.20.1. Parameter Settings:

Basic Parameters:

Baud Rate 100000 *

Word Length 9 Bits (including Parity) *

Parity Even *
Stop Bits 2 *

Advanced Parameters:

Data Direction Receive Only *

Over Sampling 16 Samples
Single Sample Disable

Advanced Features:

Auto Baudrate Disable

TX Pin Active Level Inversion Enable *

RX Pin Active Level Inversion

Enable *

Data InversionDisableTX and RX Pins SwappingDisableOverrunEnableDMA on RX ErrorEnableMSB FirstDisable

7.21. FREERTOS

Interface: CMSIS_V1

7.21.1. Config parameters:

API:

FreeRTOS API CMSIS v1

Versions:

FreeRTOS version 10.0.1 CMSIS-RTOS version 1.02

Kernel settings:

QUEUE_REGISTRY_SIZE

USE_PREEMPTION Enabled

CPU_CLOCK_HZ SystemCoreClock

1000 TICK_RATE_HZ 7 MAX_PRIORITIES 128 MINIMAL_STACK_SIZE MAX_TASK_NAME_LEN 16 USE_16_BIT_TICKS Disabled Enabled IDLE_SHOULD_YIELD USE_MUTEXES Enabled USE_RECURSIVE_MUTEXES Disabled Disabled USE_COUNTING_SEMAPHORES

USE_APPLICATION_TASK_TAG Disabled
ENABLE_BACKWARD_COMPATIBILITY Enabled
USE_PORT_OPTIMISED_TASK_SELECTION Enabled

8

USE_TICKLESS_IDLE Disabled
USE_TASK_NOTIFICATIONS Enabled
RECORD_STACK_HIGH_ADDRESS Disabled

Memory management settings:

Memory Allocation

TOTAL_HEAP_SIZE

Memory Management scheme

Dynamic *

5500 *

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 Disabled
USE_STATS_FORMATTING_FUNCTIONS Disabled

Co-routine related definitions:

USE_CO_ROUTINES Disabled MAX_CO_ROUTINE_PRIORITIES 2

Software timer definitions:

USE_TIMERS Disabled

Interrupt nesting behaviour configuration:

LIBRARY_LOWEST_INTERRUPT_PRIORITY 15
LIBRARY_MAX_SYSCALL_INTERRUPT_PRIORITY 5

7.21.2. Include parameters:

Include definitions:

vTaskPrioritySet Enabled Enabled uxTaskPriorityGet vTaskDelete Enabled vTaskCleanUpResources Disabled Enabled vTaskSuspend vTaskDelayUntil Disabled Enabled vTaskDelay xTaskGetSchedulerState Enabled xTaskResumeFromISR Enabled xQueueGetMutexHolder Disabled xSemaphoreGetMutexHolder Disabled pcTaskGetTaskName Disabled uxTaskGetStackHighWaterMarkDisabled xTaskGetCurrentTaskHandle Disabled eTaskGetState Disabled $x \\ Event Group Set Bit From ISR$ Disabled xTimerPendFunctionCall Disabled xTaskAbortDelay Disabled xTaskGetHandle Disabled

RCTelemetry	Project
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* 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	PA0	ADC1_IN1	Analog mode	No pull up pull down	n/a	ESC1 VOLTAGE
	PA1	ADC1_IN2	Analog mode	No pull up pull down	n/a	ESC2 VOLTAGE
	PA2	ADC1_IN3	Analog mode	No pull up pull down	n/a	ESC1 CURRENT
	PA3	ADC1_IN4	Analog mode	No pull up pull down	n/a	ESC2 CURRENT
ADC4	PB12	ADC4_IN3	Analog mode	No pull up pull down	n/a	BAT VOLTAGE
DAC	PA4	DAC_OUT1	Analog mode	No pull up pull down	n/a	DAC_OUT
RCC	PF0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	
SPI1	PA5	SPI1_SCK	Alternate Function Push Pull	No pull up pull down	High *	
	PA6	SPI1_MISO	Alternate Function Push Pull	No pull up pull down	High *	
	PA7	SPI1_MOSI	Alternate Function Push Pull	No pull up pull down	High *	
SPI2	PB13	SPI2_SCK	Alternate Function Push Pull	No pull up pull down	High *	
	PB15	SPI2_MOSI	Alternate Function Push Pull	No pull up pull down	High *	
SYS	PA13	SYS_JTMS- SWDIO	n/a	n/a	n/a	
	PA14	SYS_JTCK- SWCLK	n/a	n/a	n/a	
TIM4	PB6	TIM4_CH1	Alternate Function Push Pull	No pull up pull down	Low	HC OUT1
	PB7	TIM4_CH2	Alternate Function Push Pull	No pull up pull down	Low	HC OUT2
	PB9	TIM4_CH4	Alternate Function Push Pull	No pull up pull down	Low	PWM2
TIM16	PB4	TIM16_CH1	Alternate Function Push Pull	No pull up pull down	Low	Servo_2
TIM17	PB5	TIM17_CH1	Alternate Function Push Pull	No pull up pull down	Low	Servo_1
USART1	PA9	USART1_TX	Alternate Function Push Pull *	No pull up pull down	High *	Sport_UART
USART2	PA15	USART2_RX	Alternate Function Push Pull	No pull up pull down	High *	
	PB3	USART2_TX	Alternate Function Push Pull	No pull up pull down	High *	
USART3	PB10	USART3_TX	Alternate Function Open Drain	No pull up pull down	High *	
GPIO	PC13	GPIO_Output	Output Open Drain *	No pull up pull down	Low	ERROR_LED
	PB0	GPIO_Input	Input mode	Pull up *	n/a	IN1
	PB1	GPIO_Output	Output Push Pull	No pull up pull down	Low	OUT2
	PB2	GPIO_Output	Output Push Pull	No pull up pull down	Low	OUT1
	PB11	GPIO_Output	Output Push Pull	No pull up pull down	Low	WP
	PB14	GPIO_Output	Output Push Pull	No pull up pull down	Low	AMP_CS
	PA8	GPIO_Output	Output Push Pull	No pull up pull down	Low	SPI_CS

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PA10	GPIO_Output	Output Push Pull	No pull up pull down	Low	USB_ENUMERATE
	PB8	GPIO_Input	Input mode	Pull up *	n/a	IN2

8.2. DMA configuration

DMA request	Stream	Direction	Priority
USART1_RX	DMA1_Channel5	Peripheral To Memory	High *
DAC_CH1	DMA2_Channel3	Memory To Peripheral	High *
ADC1	DMA1_Channel1	Peripheral To Memory	Low
USART1_TX	DMA1_Channel4	Memory To Peripheral	Very High *
ADC4	DMA2_Channel2	Peripheral To Memory	Low
USART3_RX	DMA1_Channel3	Peripheral To Memory	Medium *
USART2_RX	DMA1_Channel6	Peripheral To Memory	Low

USART1_RX: DMA1_Channel5 DMA request Settings:

Mode: Circular *

Peripheral Increment: Disable

Memory Increment: Enable *

Peripheral Data Width: Byte Memory Data Width: Byte

DAC_CH1: DMA2_Channel3 DMA request Settings:

Mode: Circular *

Peripheral Increment: Disable

Memory Increment: Enable *

Peripheral Data Width: Half Word

Memory Data Width: Half Word

ADC1: DMA1_Channel1 DMA request Settings:

Mode: Circular *

Peripheral Increment: Disable

Memory Increment: Enable *

Peripheral Data Width: Half Word

Memory Data Width: Half Word

USART1_TX: DMA1_Channel4 DMA request Settings:

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

Memory Data Width:

ADC4: DMA2_Channel2 DMA request Settings:

Byte

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

USART3_RX: DMA1_Channel3 DMA request Settings:

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

USART2_RX: DMA1_Channel6 DMA request Settings:

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

8.3. 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	15	0
System tick timer	true	15	0
DMA1 channel1 global interrupt	true	5	0
DMA1 channel3 global interrupt	true	5	0
DMA1 channel4 global interrupt	true	5	0
DMA1 channel5 global interrupt	true	5	0
DMA1 channel6 global interrupt	true	5	0
TIM1 trigger, commutation and TIM17 interrupts	true	5	0
USART1 global interrupt / USART1 wake-up interrupt through EXTI line 25	true	5	0
USART3 global interrupt / USART3 wake-up interrupt through EXTI line 28	true	5	0
TIM7 global interrupt	true	0	0
DMA2 channel2 global interrupt	true	5	0
DMA2 channel3 global interrupt	true	5	0
PVD interrupt through EXTI line16		unused	
Flash global interrupt	unused		
RCC global interrupt		unused	
ADC1 and ADC2 interrupts	unused		
TIM1 break and TIM15 interrupts	unused		
TIM1 update and TIM16 interrupts	unused		
TIM1 capture compare interrupt	unused		
TIM2 global interrupt	unused		
TIM3 global interrupt	unused		
TIM4 global interrupt	unused		
SPI1 global interrupt	unused		
SPI2 global interrupt	unused		
USART2 global interrupt / USART2 wake-up interrupt through EXTI line 26		unused	
Timer 6 interrupt and DAC underrun interrupts		unused	
ADC4 interrupt	unused		
Floating point unit interrupt	unused		

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Configuration Rep	ort

* User modified value

9. Software Pack Report