1. Description

1.1. Project

Project Name	CANESC1_6-V0_1
Generated with:	STM32CubeMX 4.8.0
Date	06/13/2015

1.2. MCU

MCU Serie	STM32F4
MCU Line	STM32F446
MCU name	STM32F446RETx
MCU Package	LQFP64
MCU Pin number	64

2. Pinout Configuration
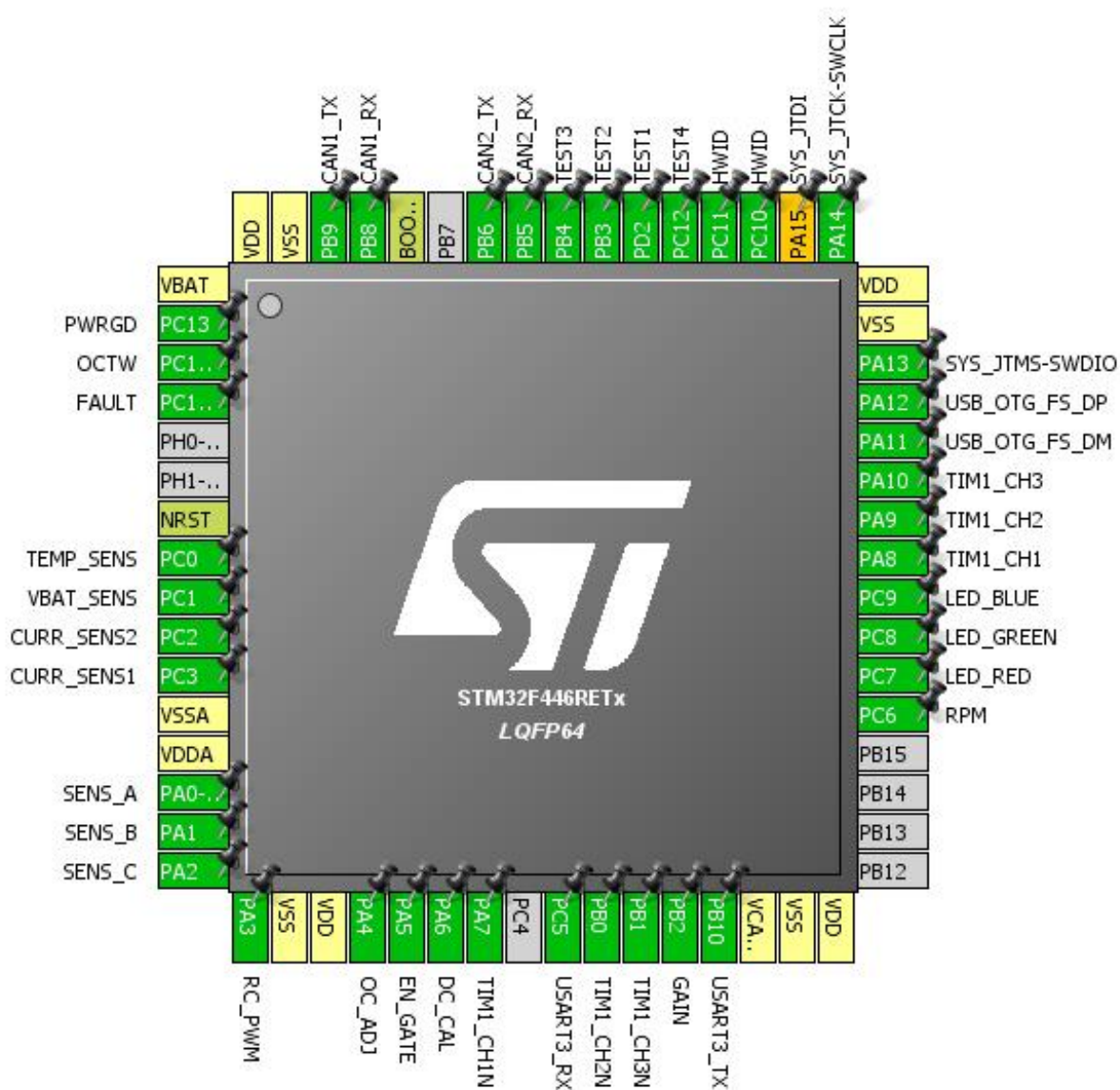
3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
ADC1	IN0	ADC1_IN0	PA0-WKUP
	IN1	ADC1_IN1	PA1
	IN2	ADC1_IN2	PA2
	IN10	ADC1_IN10	PC0
	IN11	ADC1_IN11	PC1
	IN12	ADC1_IN12	PC2
	IN13	ADC1_IN13	PC3
CAN1	Mode	CAN1_RX	PB8
		CAN1_TX	PB9
CAN2	Mode	CAN2_RX	PB5
		CAN2_TX	PB6
SYS	Debug: Serial Wire Debug (SWD)	SYS_JTCK-SWCLK	PA14
		SYS_JTMS-SWDIO	PA13

4. Pins Configuration

Pin	Pos	Function(s)	Label
PC13 *	2	GPIO_Input	PWRGD
PC14-OSC32_IN *	3	GPIO_Input	OCTW
PC15-OSC32_OUT *	4	GPIO_Input	FAULT
PC0	8	ADC1_IN10	TEMP_SENS
PC1	9	ADC1_IN11	VBAT_SENS
PC2	10	ADC1_IN12	CURR_SENS2
PC3	11	ADC1_IN13	CURR_SENS1
PA0-WKUP	14	ADC1_IN0	SENS_A
PA1	15	ADC1_IN1	SENS_B
PA2	16	ADC1_IN2	SENS_C
PA3 *	17	GPIO_Input	RC_PWM
PA4 *	20	GPIO_Output	OC_ADJ
PA5 *	21	GPIO_Output	EN_GATE
PA6 *	22	GPIO_Output	DC_CAL
PA7 *	23	GPIO_Output	TIM1_CH1N
PC5 *	25	GPIO_Output	USART3_RX
PB0 *	26	GPIO_Output	TIM1_CH2N
PB1 *	27	GPIO_Output	TIM1_CH3N
PB2 *	28	GPIO_Output	GAIN
PB10 *	29	GPIO_Output	USART3_TX
PC6 *	37	GPIO_Input	RPM
PC7 *	38	GPIO_Output	LED_RED
PC8 *	39	GPIO_Output	LED_GREEN
PC9 *	40	GPIO_Output	LED_BLUE
PA8 *	41	GPIO_Output	TIM1_CH1
PA9 *	42	GPIO_Output	TIM1_CH2
PA10 *	43	GPIO_Output	TIM1_CH3
PA11 *	44	GPIO_Output	USB_OTG_FS_DM
PA12 *	45	GPIO_Output	USB_OTG_FS_DP
PA13	46	SYS_JTMS-SWDIO	
PA14	49	SYS_JTCK-SWCLK	
PA15 **	50	SYS_JTDI	
PC10 *	51	GPIO_Input	HWID
PC11 *	52	GPIO_Input	HWID
PC12 *	53	GPIO_Output	TEST4
PD2 *	54	GPIO_Output	TEST1
PB3 *	55	GPIO_Output	TEST2
PB4 *	56	GPIO_Output	TEST3
PB5	57	CAN2_RX	

Pin	Pos	Function(s)	Label
PB6	58	CAN2_TX	
PB8	61	CAN1_RX	
PB9	62	CAN1_TX	

 * The pin is affected with an I/O function

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

5. Power Plugin report

5.1. Microcontroller Selection

Serie	STM32F4
Line	STM32F446
MCU	STM32F446RETx
Datasheet	027107_Rev1

5.2. Parameter Selection

Temperature	25
Vdd	null

6. Software Project

6.1. Project Settings

Name	Value
Project Name	CANESC1_6-V0_1
Project Folder	C:\Users\david_s5\Desktop\test\CANESC1_6-V0_1
Toolchain / IDE	EWARM
Firmware Package Name and Version	STM32Cube FW_F4 V1.5.0

6.2. 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

6.3. Toolchains Settings

Name	Value
Compiler Optimizations	Balanced Size/Speed