

## ***1. Description***

### 1.1. Project

Project Name	Plume
Generated with:	STM32CubeMX 4.0.0
Date	03/26/2014

### 1.2. MCU

MCU Serie	STM32F4
MCU Line	STM32F427/437
MCU name	STM32F427VITx
MCU Package	LQFP100
MCU Pin number	100



### 3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
I2S2	Mode: Full-Duplex Master	I2S2_CK	PB10
		I2S2_SD	PC3
		I2S2_WS	PB12
		I2S2_ext_SD	PC2
	Master Clock Output	I2S2_MCK	PC6
I2S3	Mode: Full-Duplex Master	I2S3_CK	PC10
		I2S3_SD	PC12
		I2S3_WS	PA4
		I2S3_ext_SD	PC11
	Master Clock Output	I2S3_MCK	PC7
RCC	High Speed Clock (HSE): Crystal/Ceramic Resonator	RCC_OSC_IN	PH0/OSC_IN
		RCC_OSC_OUT	PH1/OSC_OUT
SAI1	SAI_A Mode: Master with Master Clock Out	SAI1_SD_A	PE6
		SAI1_SCK_A	PE5
		SAI1_FS_A	PE4
		SAI1_MCLK_A	PE2
SPI1	Mode: Full-Duplex Master	SPI1_MISO	PA6
		SPI1_MOSI	PA7
		SPI1_SCK	PA5
SPI4	Mode: Full-Duplex Master	SPI4_MISO	PE13
		SPI4_MOSI	PE14
		SPI4_SCK	PE12
SYS	Debug: Serial Wire Debug (SWD)	SYS_JTCK-SWCLK	PA14
		SYS_JTMS-SWDIO	PA13
UART4	Mode: Asynchronous	UART4_RX	PA1
		UART4_TX	PA0/WKUP

## 4. Pins Configuration

Pins	Pos	Functions
PE2	1	SAI1_MCLK_A
PE4	3	SAI1_FS_A
PE5	4	SAI1_SCK_A
PE6	5	SAI1_SD_A
PH0/OSC_IN	12	RCC_OSC_IN
PH1/OSC_OUT	13	RCC_OSC_OUT
PC0 *	15	GPIO_Output
PC2	17	I2S2_ext_SD
PC3	18	I2S2_SD
PA0/WKUP	23	UART4_TX
PA1	24	UART4_RX
PA4	29	I2S3_WS
PA5	30	SPI1_SCK
PA6	31	SPI1_MISO
PA7	32	SPI1_MOSI
PC4 *	33	GPIO_Output
PC5 *	34	GPIO_Output
PB0 *	35	GPIO_Output
PB1 *	36	GPIO_Output
PB2/BOOT1 *	37	GPIO_Output
PE7 *	38	GPIO_Output
PE8 *	39	GPIO_Output
PE9 *	40	GPIO_Output
PE10 *	41	GPIO_Output
PE12	43	SPI4_SCK
PE13	44	SPI4_MISO
PE14	45	SPI4_MOSI
PB10	47	I2S2_CK
PB12	51	I2S2_WS
PB15 *	54	GPIO_Output
PD8 *	55	GPIO_Output
PD9 *	56	GPIO_Output
PD10 *	57	GPIO_Output
PD11 *	58	GPIO_Output
PD12 *	59	GPIO_Output
PD13 *	60	GPIO_Output
PD14 *	61	GPIO_Output
PD15 *	62	GPIO_Output
PC6	63	I2S2_MCK

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Pins	Pos	Functions
PC7	64	I2S3_MCK
PA13	72	SYS_JTMS-SWDIO
PA14	76	SYS_JTCK-SWCLK
PC10	78	I2S3_CK
PC11	79	I2S3_ext_SD
PC12	80	I2S3_SD

\* The pin is affected with an I/O function

## **5. Power Plugin report**

### 5.1. Microcontroller Selection

Serie	STM32F4
Line	STM32F427/437
MCU	STM32F427VITx
Datasheet	024030_Rev3

### 5.2. Parameter Selection

Temperature	25
Vdd	3.3

## 6. Software Project

### 6.1. Project Settings

Name	Value
Project Name	Plume
Project Folder	C:\Users\ROSE\Documents\cube_gen_test\Plume
Toolchain / IDE	EWARM 6.70
Firmware Package Name and Version	STM32Cube FW_F4 V1.1.0

### 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	Yes
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)	Yes

### 6.3. Toolchains Settings

Name	Value
Compiler Optimizations	Balanced Size/Speed