1. Description

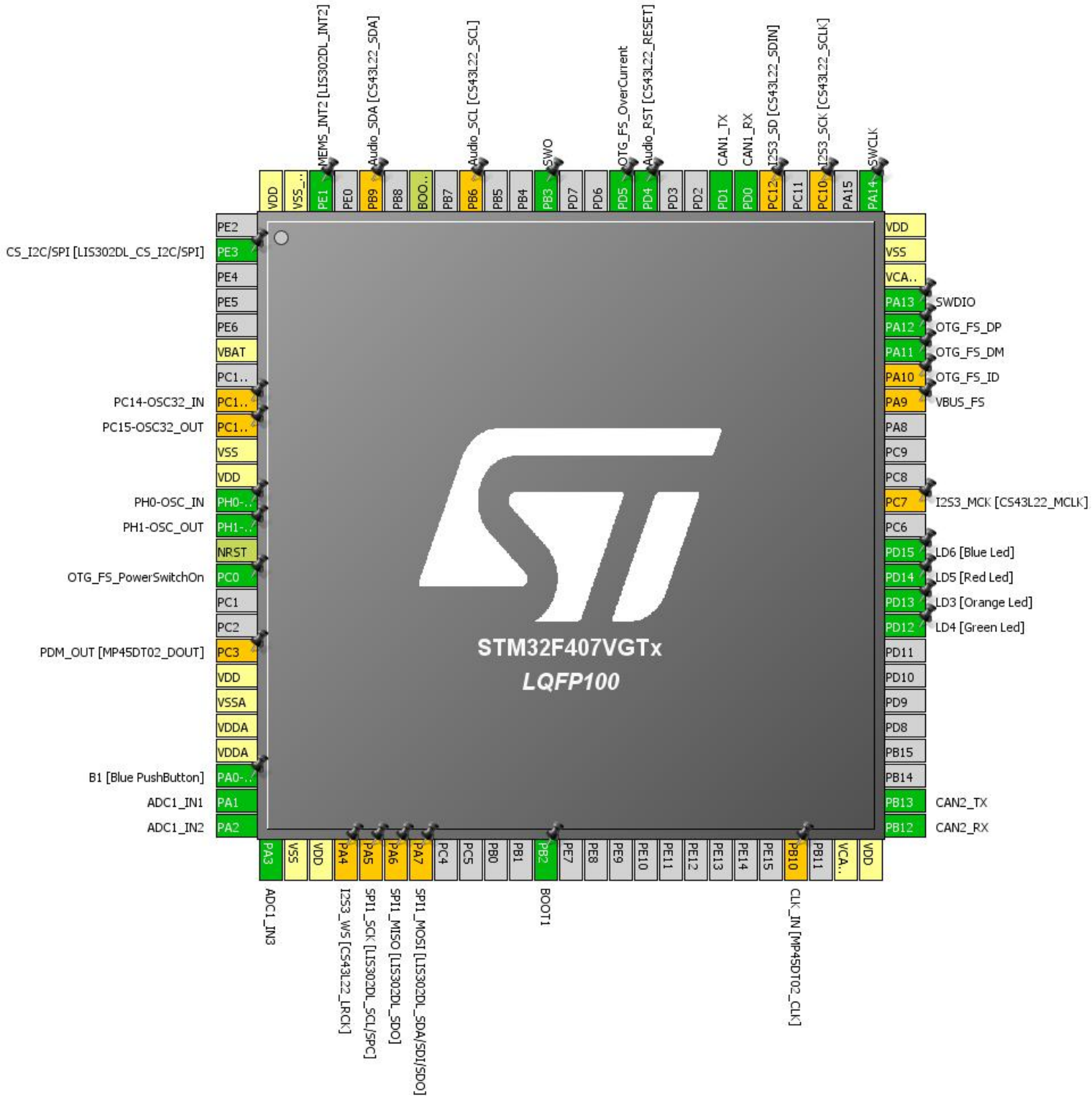
1.1. Project

Project Name	CAN_USB
Generated with:	STM32CubeMX 4.7.1
Date	05/16/2015

1.2. MCU

MCU Serie	STM32F4
MCU Line	STM32F407/417
MCU name	STM32F407VGTx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration



3. IPs and Middlewares Configuration

IP	Mode	Fonction	Pin
ADC1	IN1	ADC1_IN1	PA1
	IN2	ADC1_IN2	PA2
	IN3	ADC1_IN3	PA3
CAN1	Mode	CAN1_RX	PD0
		CAN1_TX	PD1
CAN2	Mode	CAN2_RX	PB12
		CAN2_TX	PB13
RCC	High Speed Clock (HSE): Crystal/Ceramic Resonator	RCC_OSC_IN	PH0-OSC_IN
		RCC_OSC_OUT	PH1-OSC_OUT
SYS	Debug: SWD and Asynchronous Trace	SYS_JTMS-SWDIO	PA13
		SYS_JTCK-SWCLK	PA14
		SYS_JTDO-SWO	PB3
USB_OTG_FS	Mode: Host_Only	USB_OTG_FS_DM	PA11
		USB_OTG_FS_DP	PA12

MiddleWare	Mode
FREERTOS	Enabled
USB_HOST	Class for FS IP: Host Supporting ALL Classes

4. Pins Configuration

Pin	Pos	Function(s)	Label
PE3 *	2	GPIO_Output	CS_I2C/SPI [LIS302DL_CS_I2C/SPI]
PC14-OSC32_IN **	8	RCC_OSC32_IN	PC14-OSC32_IN
PC15-OSC32_OUT **	9	RCC_OSC32_OUT	PC15-OSC32_OUT
PH0-OSC_IN	12	RCC_OSC_IN	PH0-OSC_IN
PH1-OSC_OUT	13	RCC_OSC_OUT	PH1-OSC_OUT
PC0 *	15	GPIO_Output	OTG_FS_PowerSwitchOn
PC3 **	18	I2S2_SD	PDM_OUT [MP45DT02_DOUT]
PA0-WKUP	23	GPIO_EXTI0	B1 [Blue PushButton]
PA1	24	ADC1_IN1	
PA2	25	ADC1_IN2	
PA3	26	ADC1_IN3	
PA4 **	29	I2S3_WS	I2S3_WS [CS43L22_LRCK]
PA5 **	30	SPI1_SCK	SPI1_SCK [LIS302DL_SCL/SPC]
PA6 **	31	SPI1_MISO	SPI1_MISO [LIS302DL_SDO]
PA7 **	32	SPI1_MOSI	SPI1_MOSI [LIS302DL_SDA/SDI/SDO]
PB2 *	37	GPIO_Input	BOOT1
PB10 **	47	I2S2_CK	CLK_IN [MP45DT02_CLK]
PB12	51	CAN2_RX	
PB13	52	CAN2_TX	
PD12 *	59	GPIO_Output	LD4 [Green Led]
PD13 *	60	GPIO_Output	LD3 [Orange Led]
PD14 *	61	GPIO_Output	LD5 [Red Led]
PD15 *	62	GPIO_Output	LD6 [Blue Led]
PC7 **	64	I2S3_MCK	I2S3_MCK [CS43L22_MCLK]
PA9 **	68	USB_OTG_FS_VBUS	VBUS_FS
PA10 **	69	USB_OTG_FS_ID	OTG_FS_ID
PA11	70	USB_OTG_FS_DM	OTG_FS_DM
PA12	71	USB_OTG_FS_DP	OTG_FS_DP
PA13	72	SYS_JTMS-SWDIO	SWDIO
PA14	76	SYS_JTCK-SWCLK	SWCLK
PC10 **	78	I2S3_CK	I2S3_SCK [CS43L22_SCLK]
PC12 **	80	I2S3_SD	I2S3_SD [CS43L22_SDIN]
PD0	81	CAN1_RX	
PD1	82	CAN1_TX	
PD4 *	85	GPIO_Output	Audio_RST [CS43L22_RESET]
PD5 *	86	GPIO_Input	OTG_FS_OverCurrent
PB3	89	SYS_JTDO-SWO	SWO
PB6 **	92	I2C1_SCL	Audio_SCL [CS43L22_SCL]
PB9 **	96	I2C1_SDA	Audio_SDA [CS43L22_SDA]

Pin	Pos	Function(s)	Label
PE1	98	GPIO_EXTI1	MEMS_INT2 [LIS302DL_INT2]

* 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	STM32F407/417
MCU	STM32F407VGTx
Datasheet	022152_Rev5

5.2. Parameter Selection

Temperature	25
Vdd	3.3

6. Software Project

6.1. Project Settings

Name	Value
Project Name	CAN_USB
Project Folder	E:\Special Projects\CAN_HS-LS_GW\40_Software\Board_STM32F4Discovery
Toolchain / IDE	MDK-ARM V5
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