

1. Description

1.1. Project

Project Name	100kHz
Board Name	No information
Generated with:	STM32CubeMX 4.13.0
Date	10/30/2016

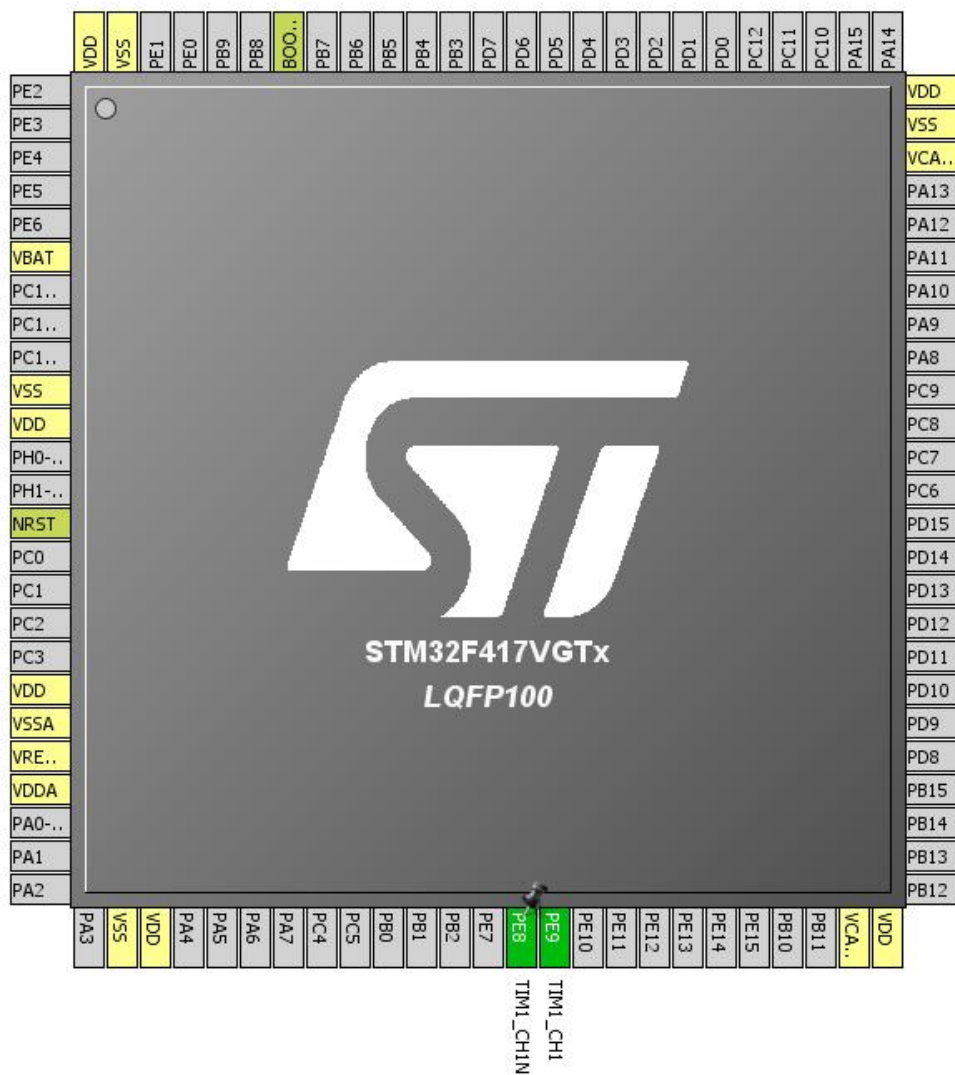
1.2. MCU

MCU Series	STM32F4
MCU Line	STM32F407/417
MCU name	STM32F417VGTx
MCU Package	LQFP100
MCU Pin number	100

1.3. Caution

The report was generated although the configuration was in a modified state. It may be not accurate

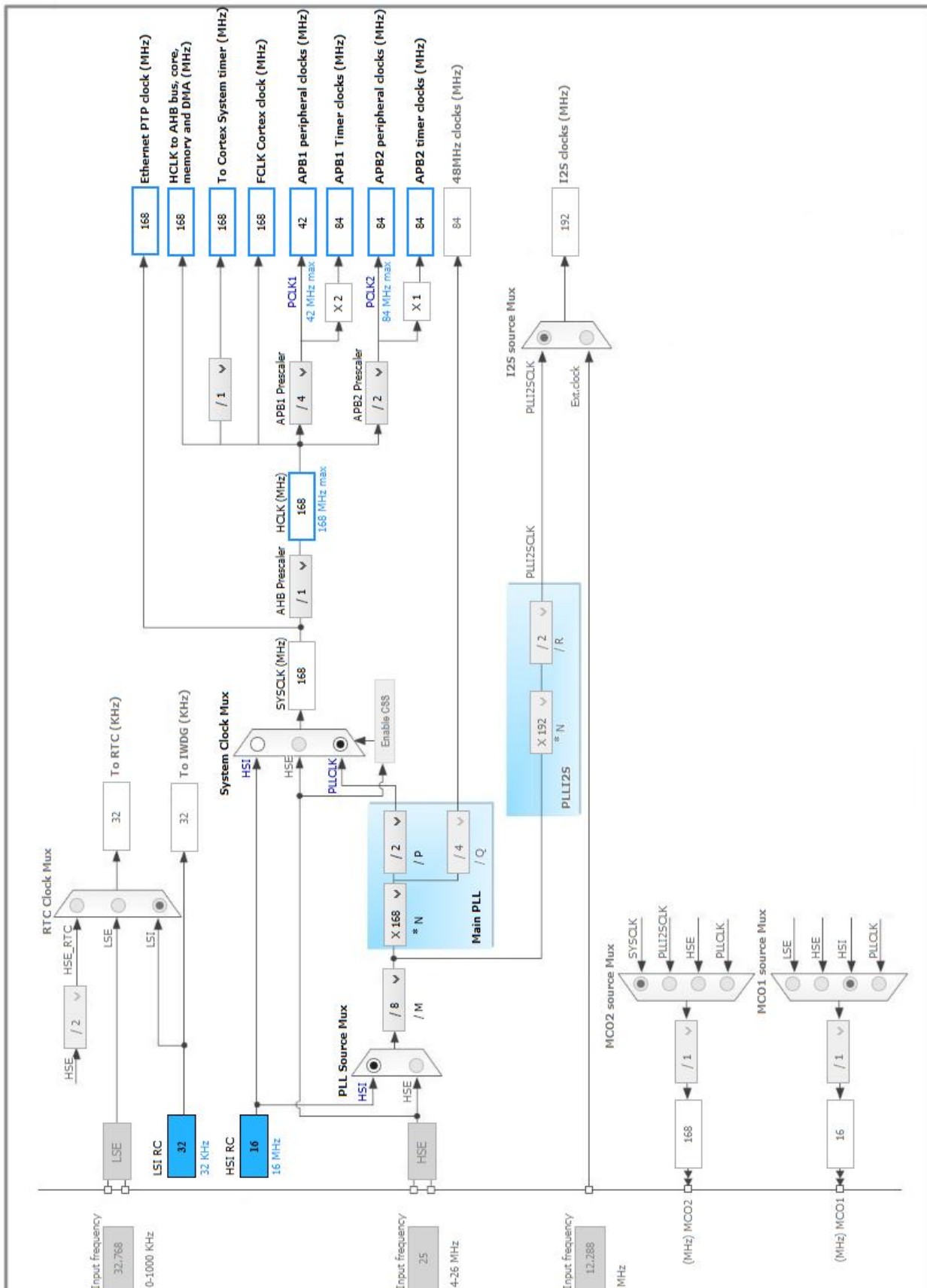
2. Pinout Configuration



3. Pins Configuration

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
10	VSS	Power		
11	VDD	Power		
14	NRST	Reset		
19	VDD	Power		
20	VSSA	Power		
21	VREF+	Power		
22	VDDA	Power		
27	VSS	Power		
28	VDD	Power		
39	PE8	I/O	TIM1_CH1N	
40	PE9	I/O	TIM1_CH1	
49	VCAP_1	Power		
50	VDD	Power		
73	VCAP_2	Power		
74	VSS	Power		
75	VDD	Power		
94	BOOT0	Boot		
99	VSS	Power		
100	VDD	Power		

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. SYS

Timebase Source: SysTick

5.2. TIM1

Channel1: PWM Generation CH1 CH1N

5.2.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	34 *
Counter Mode	Up
Counter Period (AutoReload Register - 16 bits value)	24 *
Internal Clock Division (CKD)	No Division
Repetition Counter (RCR - 8 bits value)	0

Trigger Output (TRGO) Parameters:

Master/Slave Mode	Disable (no sync between this TIM (Master) and its Slaves)
Trigger Event Selection	Reset (UG bit from TIMx_EGR)

Break And Dead Time management - BRK Configuration:

BRK State	Disable
BRK Polarity	High

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
Dead Time	0

PWM Generation Channel 1 and 1N:

Mode	PWM mode 1
Pulse (16 bits value)	12 *
Fast Mode	Disable
CH Polarity	High
CHN Polarity	High
CH Idle State	Reset
CHN Idle State	Reset

* User modified value

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
TIM1	PE8	TIM1_CH1N	Alternate Function Push Pull	No pull-up and no pull-down	Low	
	PE9	TIM1_CH1	Alternate Function Push Pull	No pull-up and no pull-down	Low	

6.2. DMA configuration

nothing configured in DMA service

6.3. NVIC configuration

Interrupt Table	Enable	Preenmption Priority	SubPriority
System tick timer	true	0	0
Non maskable interrupt	unused		
Hard fault interrupt	unused		
Memory management fault	unused		
Pre-fetch fault, memory access fault	unused		
Undefined instruction or illegal state	unused		
Debug monitor	unused		
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
TIM1 break interrupt and TIM9 global interrupt	unused		
TIM1 update interrupt and TIM10 global interrupt	unused		
TIM1 trigger and commutation interrupts and TIM11 global interrupt	unused		
TIM1 capture compare interrupt	unused		

* User modified value

7. Power Plugin report

7.1. Microcontroller Selection

Series	STM32F4
Line	STM32F407/417
MCU	STM32F417VGTx
Datasheet	022063_Rev5

7.2. Parameter Selection

Temperature	25
Vdd	3.3