1. Description

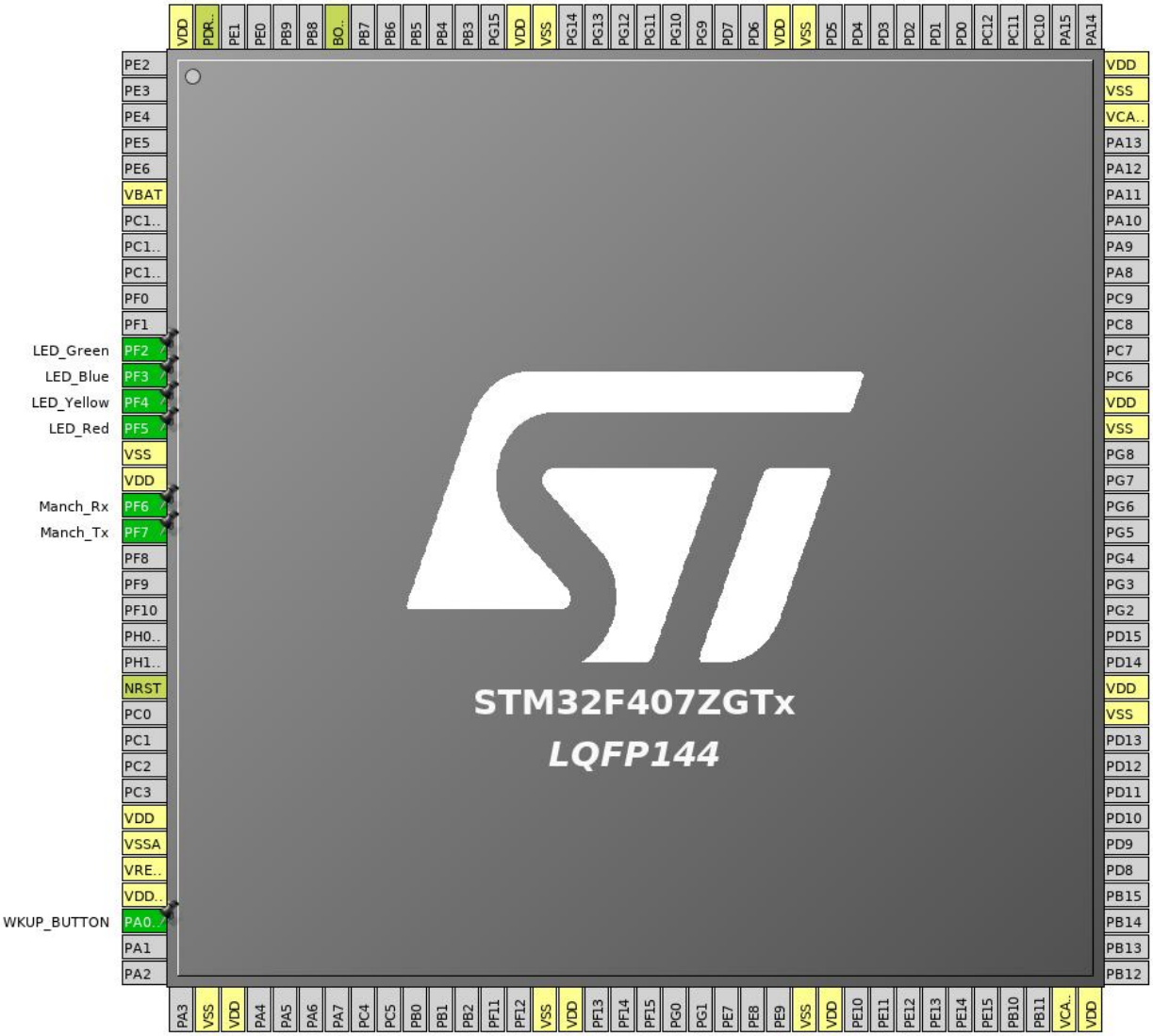
1.1. Project

Project Name	DALI_Basic
Board Name	DALI_Basic
Generated with:	STM32CubeMX 4.23.0
Date	12/19/2017

1.2. MCU

MCU Series	STM32F4
MCU Line	STM32F407/417
MCU name	STM32F407ZGTx
MCU Package	LQFP144
MCU Pin number	144

2. Pinout Configuration



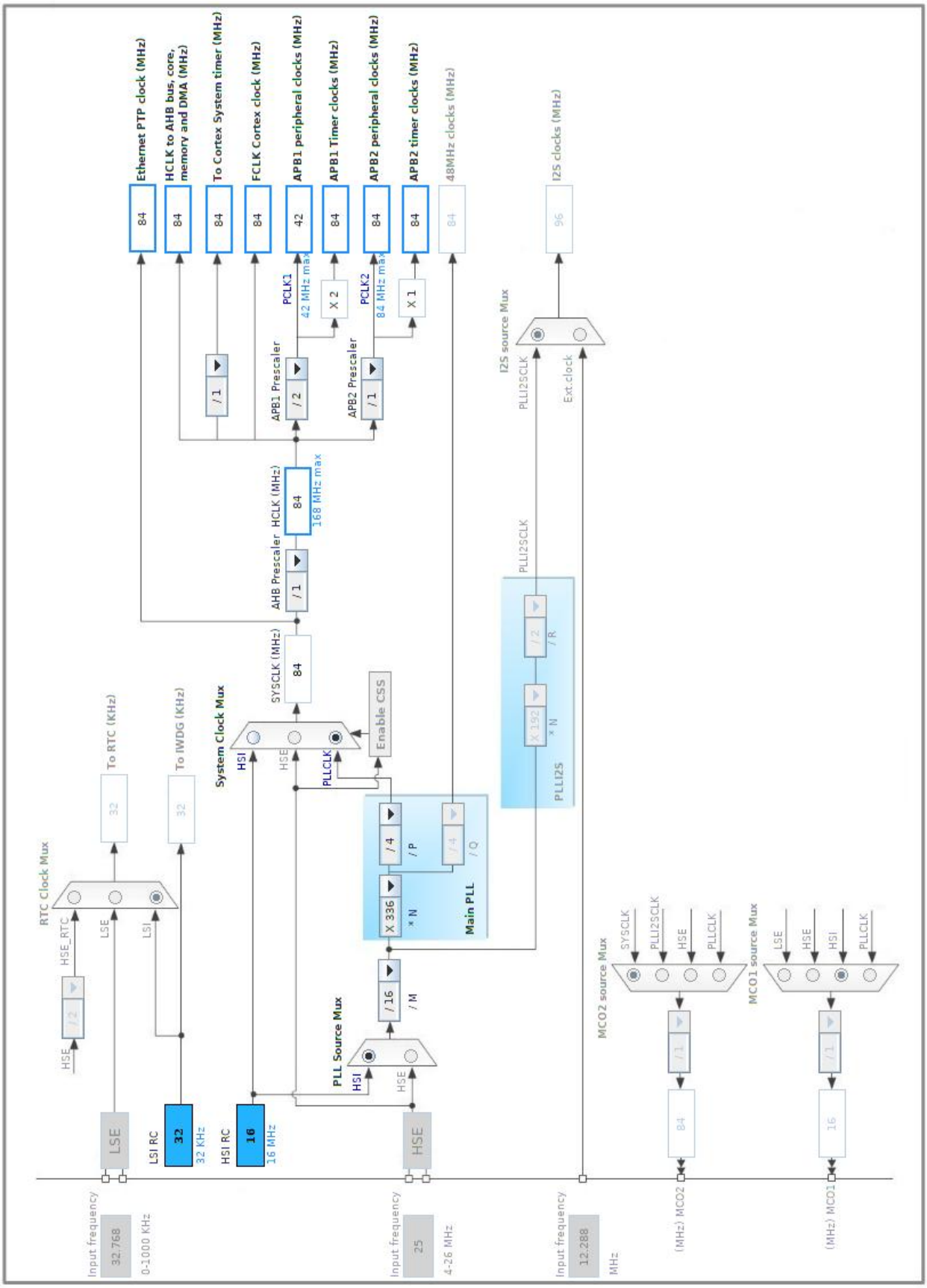
3. Pins Configuration

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
6	VBAT	Power		
12	PF2 *	I/O	GPIO_Output	LED_Green
13	PF3 *	I/O	GPIO_Output	LED_Blue
14	PF4 *	I/O	GPIO_Output	LED_Yellow
15	PF5 *	I/O	GPIO_Output	LED_Red
16	VSS	Power		
17	VDD	Power		
18	PF6	I/O	GPIO_EXTI6	Manch_Rx
19	PF7 *	I/O	GPIO_Output	Manch_Tx
25	NRST	Reset		
30	VDD	Power		
31	VSSA	Power		
32	VREF+	Power		
33	VDDA	Power		
34	PA0-WKUP	I/O	GPIO_EXTI0	WKUP_BUTTON
38	VSS	Power		
39	VDD	Power		
51	VSS	Power		
52	VDD	Power		
61	VSS	Power		
62	VDD	Power		
71	VCAP_1	Power		
72	VDD	Power		
83	VSS	Power		
84	VDD	Power		
94	VSS	Power		
95	VDD	Power		
106	VCAP_2	Power		
107	VSS	Power		
108	VDD	Power		
120	VSS	Power		
121	VDD	Power		
130	VSS	Power		
131	VDD	Power		
138	BOOT0	Boot		
143	PDR_ON	Reset		

Pin Number LQFP144	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
144	VDD	Power		

* The pin is affected with an I/O function

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. SYS

Timebase Source: SysTick

5.2. TIM2

Clock Source : Internal Clock

5.2.1. Parameter Settings:

Counter Settings:

Prescaler (PSC - 16 bits value)	**83 ***
Counter Mode	Up
Counter Period (AutoReload Register - 32 bits value)	**103 ***
Internal Clock Division (CKD)	No Division

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)

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
GPIO	PF2	GPIO_Output	Output Push Pull	**Pull-down ***	Low	LED_Green
	PF3	GPIO_Output	Output Push Pull	**Pull-down ***	Low	LED_Blue
	PF4	GPIO_Output	Output Push Pull	**Pull-down ***	Low	LED_Yellow
	PF5	GPIO_Output	Output Push Pull	**Pull-down ***	Low	LED_Red
	PF6	GPIO_EXTI6	External Interrupt Mode with Rising edge trigger detection	**Pull-down ***	n/a	Manch_Rx
	PF7	GPIO_Output	Output Push Pull	**Pull-down ***	Low	Manch_Tx
	PA0-WKUP	GPIO_EXTI0	External Interrupt Mode with Rising edge trigger detection	**Pull-down ***	n/a	WKUP_BUTTON

6.2. DMA configuration

nothing configured in DMA service

6.3. 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	0	0
System tick timer	true	0	0
EXTI line[9:5] interrupts	true	1	0
TIM2 global interrupt	true	1	0
PVD interrupt through EXTI line 16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
EXTI line0 interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F4
Line	STM32F407/417
MCU	STM32F407ZGTx
Datasheet	022152_Rev8

7.2. Parameter Selection

Temperature	25
Vdd	3.3

8. Software Project

8.1. Project Settings

Name	Value
Project Name	DALI_Basic
Project Folder	/home/saicharan/Dropbox/arbeit/lichtsteuer-
Toolchain / IDE	Makefile
Firmware Package Name and Version	STM32Cube FW_F4 V1.18.0

8.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	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 consumption)	No