

## 1. Description

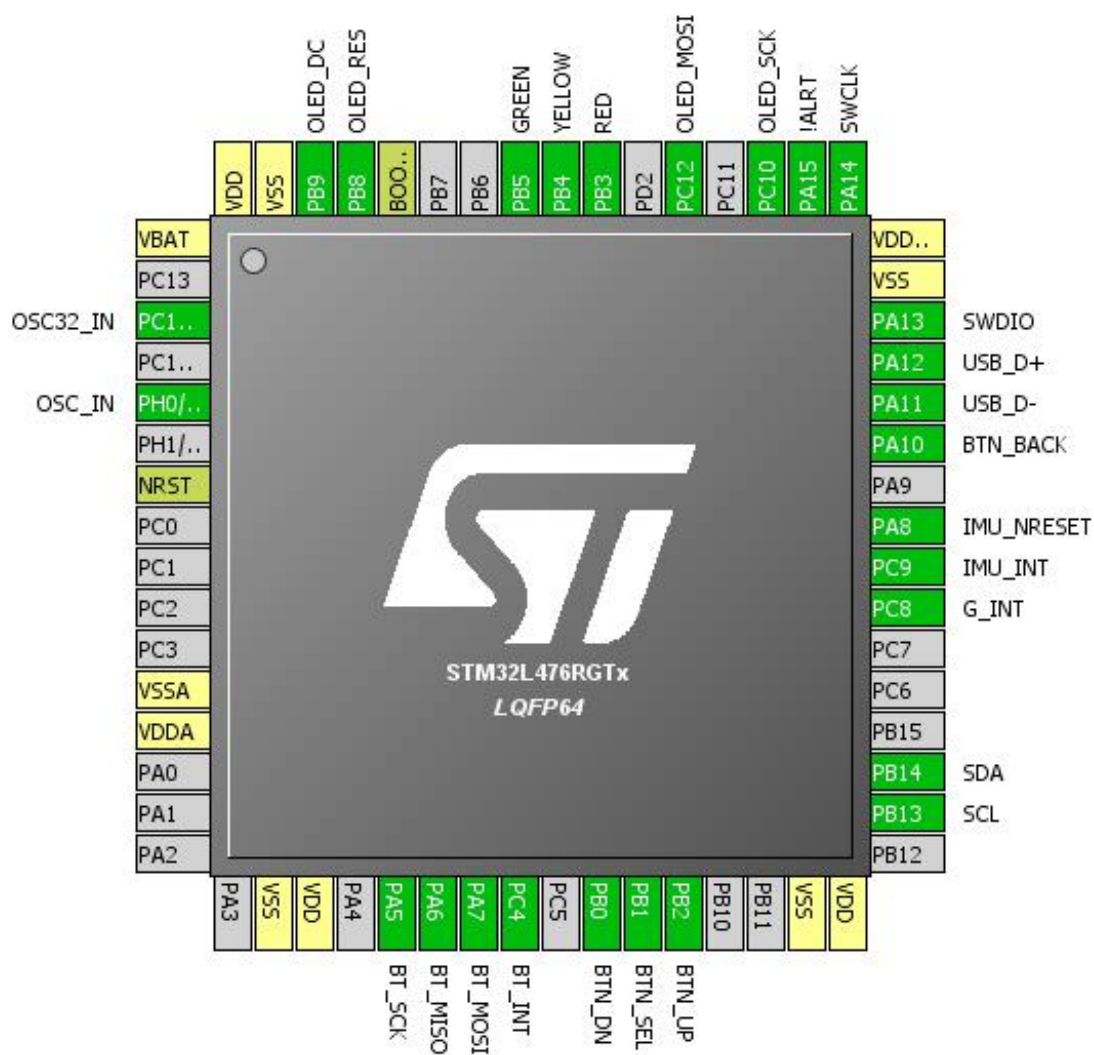
### 1.1. Project

Project Name	SmartWatch
Board Name	No information
Generated with:	STM32CubeMX 4.10.0
Date	10/15/2015

### 1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x6
MCU name	STM32L476RGTx
MCU Package	LQFP64
MCU Pin number	64

## 2. Pinout Configuration



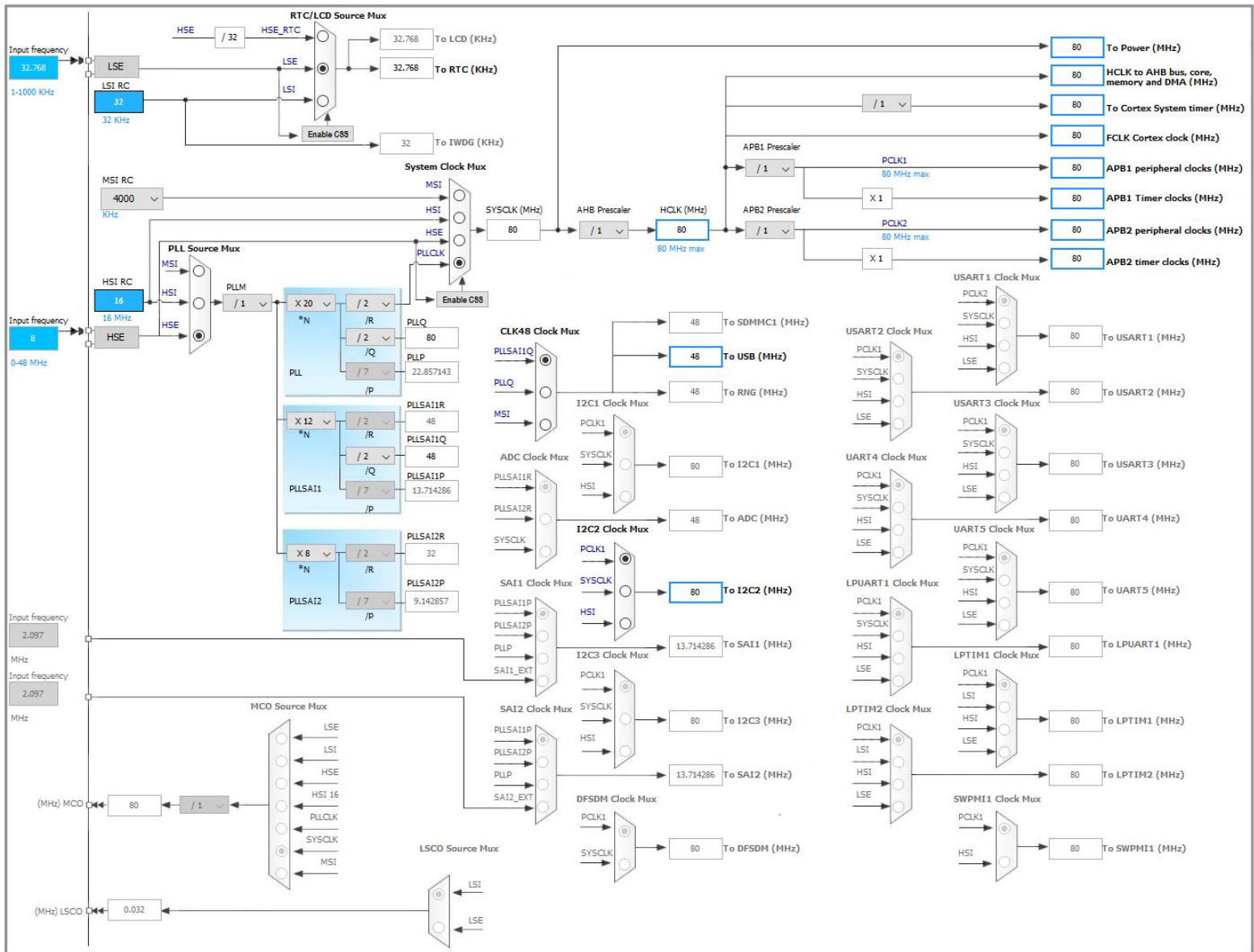
### 3. Pins Configuration

Pin Number LQFP64	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	VBAT	Power		
3	PC14/OSC32_IN	I/O	RCC_OSC32_IN	OSC32_IN
5	PH0/OSC_IN	I/O	RCC_OSC_IN	OSC_IN
7	NRST	Reset		
12	VSSA	Power		
13	VDDA	Power		
18	VSS	Power		
19	VDD	Power		
21	PA5	I/O	SPI1_SCK	BT_SCK
22	PA6	I/O	SPI1_MISO	BT_MISO
23	PA7	I/O	SPI1_MOSI	BT_MOSI
24	PC4 *	I/O	GPIO_Input	BT_INT
26	PB0 *	I/O	GPIO_Input	BTN_DN
27	PB1 *	I/O	GPIO_Input	BTN_SEL
28	PB2 *	I/O	GPIO_Input	BTN_UP
31	VSS	Power		
32	VDD	Power		
34	PB13	I/O	I2C2_SCL	SCL
35	PB14	I/O	I2C2_SDA	SDA
39	PC8 *	I/O	GPIO_Input	G_INT
40	PC9 *	I/O	GPIO_Input	IMU_INT
41	PA8 *	I/O	GPIO_Output	IMU_NRESET
43	PA10 *	I/O	GPIO_Input	BTN_BACK
44	PA11	I/O	USB_OTG_FS_DM	USB_D-
45	PA12	I/O	USB_OTG_FS_DP	USB_D+
46	PA13	I/O	SYS_JTMS-SWDIO	SWDIO
47	VSS	Power		
48	VDDUSB	Power		
49	PA14	I/O	SYS_JTCK-SWCLK	SWCLK
50	PA15 *	I/O	GPIO_Input	!ALRT
51	PC10	I/O	SPI3_SCK	OLED_SCK
53	PC12	I/O	SPI3_MOSI	OLED_MOSI
55	PB3 *	I/O	GPIO_Output	RED
56	PB4 *	I/O	GPIO_Output	YELLOW
57	PB5 *	I/O	GPIO_Output	GREEN
60	BOOT0	Boot		

Pin Number LQFP64	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
61	PB8 *	I/O	GPIO_Output	OLED_RES
62	PB9 *	I/O	GPIO_Output	OLED_DC
63	VSS	Power		
64	VDD	Power		

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

## 4. Clock Tree Configuration



## 5. IPs and Middleware Configuration

### 5.1. I2C2

#### I2C: I2C

##### 5.1.1. Parameter Settings:

###### Timing configuration:

I2C Speed Mode	Standard Mode
I2C Speed Frequency (KHz)	100
Rise Time (ns)	0
Fall Time (ns)	0
Coefficient of Digital Filter	0
Analog Filter	Enabled
Timing	0x00000000

###### Slave Features:

Clock No Stretch Mode	Disabled
General Call Address Detection	Disabled
Primary Address Length selection	7-bit
Dual Address Acknowledged	Disabled
Primary slave address	0

### 5.2. RCC

#### High Speed Clock (HSE): BYPASS Clock Source

#### Low Speed Clock (LSE) : BYPASS Clock Source

##### 5.2.1. Parameter Settings:

###### System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	Enabled
Data Cache	Enabled
Flash Latency(WS)	4 WS (5 CPU cycle)

###### RCC Parameters:

HSI Calibration Value	16
MSI Calibration Value	0

MSI Auto Calibration	Disabled
<b>Power Parameters:</b>	
Power Regulator Voltage Scale	Power Regulator Voltage Scale 1

## 5.3. RTC

### Alarm A: Internal Alarm A

#### 5.3.1. Parameter Settings:

##### General:

Hour Format	Hourformat 24
Asynchronous Predivider value	127
Synchronous Predivider value	255

##### Calendar Time:

Data Format	BCD data format
Hours	0
Minutes	0
Seconds	0
Day Light Saving: value of hour adjustment	Daylightsaving None
Store Operation	Storeoperation Reset

##### Calendar Date:

Week Day	Monday
Month	January
Date	1
Year	0

##### Alarm A:

Hours	0
Minutes	0
Seconds	0
Alarm Mask	Alarm Mask None
Alarm Sub Second Mask	All Alarm SS fields are masked.
Alarm Date Week Day Sel	Date
Alarm Date	1

## 5.4. SPI1

### Mode: Full-Duplex Master

### 5.4.1. Parameter Settings:

#### Basic Parameters:

Frame Format	Motorola
Data Size	4 Bits
First Bit	MSB First

#### Clock Parameters:

Prescaler (for Baud Rate)	<b>8 *</b>
Baud Rate	<b>10.0 MBits/s *</b>
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

#### Advanced Parameters:

CRC Calculation	Disabled
NSSP Mode	Enabled
NSS Signal Type	Software

## 5.5. SPI3

### Mode: Transmit Only Master

### 5.5.1. Parameter Settings:

#### Basic Parameters:

Frame Format	Motorola
Data Size	4 Bits
First Bit	MSB First

#### Clock Parameters:

Prescaler (for Baud Rate)	<b>8 *</b>
Baud Rate	<b>10.0 MBits/s *</b>
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

#### Advanced Parameters:

CRC Calculation	Disabled
NSSP Mode	Enabled
NSS Signal Type	Software



## 5.6. SYS

Debug: Serial Wire Debug (SWD)

## 5.7. USB\_OTG\_FS

Mode: Device\_Only

### 5.7.1. Parameter Settings:

Speed	Full Speed 12MBit/s
Endpoint 0 Max Packet size	64 Bytes
Enable internal IP DMA	Disabled
Low power	Disabled
Link Power Management	Disabled
VBUS sensing	Enabled

\* User modified value

## 5. Power Plugin report

### 5.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x6
MCU	STM32L476RGTx
Datasheet	025976_Rev2

### 5.2. Parameter Selection

Temperature	25
Vdd	3.0