1. Description

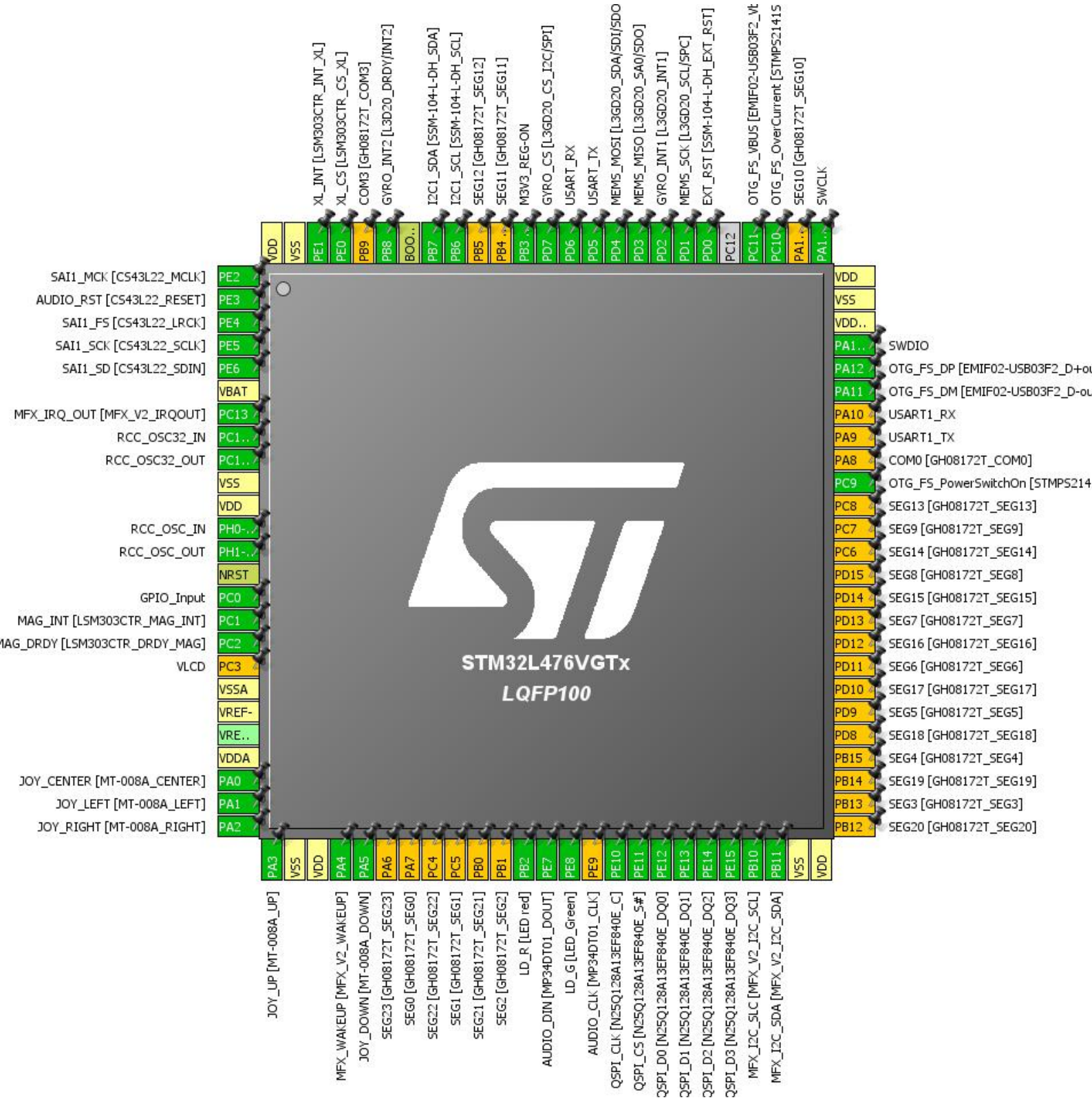
1.1. Project

Project Name	UART STM32
Board Name	32L476GDISCOVERY
Generated with:	STM32CubeMX 4.24.0
Date	01/29/2018

1.2. MCU

MCU Series	STM32L4
MCU Line	STM32L4x6
MCU name	STM32L476VGTx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration



3. Pins Configuration

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	PE2	I/O	SAI1_MCLK_A	SAI1_MCK [CS43L22_MCLK]
2	PE3 *	I/O	GPIO_Output	AUDIO_RST [CS43L22_RESET]
3	PE4	I/O	SAI1_FS_A	SAI1_FS [CS43L22_LRCK]
4	PE5	I/O	SAI1_SCK_A	SAI1_SCK [CS43L22_SCLK]
5	PE6	I/O	SAI1_SD_A	SAI1_SD [CS43L22_SDIN]
6	VBAT	Power		
7	PC13	I/O	GPIO_EXTI13	MFX_IRQ_OUT [MFX_V2_IRQOUT]
8	PC14-OSC32_IN (PC14)	I/O	RCC_OSC32_IN	
9	PC15-OSC32_OUT (PC15)	I/O	RCC_OSC32_OUT	
10	VSS	Power		
11	VDD	Power		
12	PH0-OSC_IN (PH0)	I/O	RCC_OSC_IN	
13	PH1-OSC_OUT (PH1)	I/O	RCC_OSC_OUT	
14	NRST	Reset		
15	PC0 *	I/O	GPIO_Input	
16	PC1 *	I/O	GPIO_Input	MAG_INT [LSM303CTR_MAG_INT]
17	PC2 *	I/O	GPIO_Input	MAG_DRDY [LSM303CTR_DRDY_MAG]
18	PC3 **	I/O	LCD_VLCD	VLCD
19	VSSA	Power		
20	VREF-	Power		
22	VDDA	Power		
23	PA0 *	I/O	GPIO_Input	JOY_CENTER [MT-008A_CENTER]
24	PA1 *	I/O	GPIO_Input	JOY_LEFT [MT-008A_LEFT]
25	PA2 *	I/O	GPIO_Input	JOY_RIGHT [MT-008A_RIGHT]
26	PA3 *	I/O	GPIO_Input	JOY_UP [MT-008A_UP]
27	VSS	Power		
28	VDD	Power		
29	PA4	I/O	GPIO_EXTI4	MFX_WAKEUP [MFX_V2_WAKEUP]

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
30	PA5 *	I/O	GPIO_Input	JOY_DOWN [MT-008A_DOWN]
31	PA6 **	I/O	LCD_SEG3	SEG23 [GH08172T_SEG23]
32	PA7 **	I/O	LCD_SEG4	SEG0 [GH08172T_SEG0]
33	PC4 **	I/O	LCD_SEG22	SEG22 [GH08172T_SEG22]
34	PC5 **	I/O	LCD_SEG23	SEG1 [GH08172T_SEG1]
35	PB0 **	I/O	LCD_SEG5	SEG21 [GH08172T_SEG21]
36	PB1 **	I/O	LCD_SEG6	SEG2 [GH08172T_SEG2]
37	PB2 *	I/O	GPIO_Output	LD_R [LED red]
38	PE7	I/O	SAI1_SD_B	AUDIO_DIN [MP34DT01_DOUT]
39	PE8 *	I/O	GPIO_Output	LD_G [LED_Green]
40	PE9 **	I/O	SAI1_FS_B	AUDIO_CLK [MP34DT01_CLK]
41	PE10	I/O	QUADSPI_CLK	QSPI_CLK [N25Q128A13EF840E_C]
42	PE11	I/O	QUADSPI_NCS	QSPI_CS [N25Q128A13EF840E_S#]
43	PE12	I/O	QUADSPI_BK1_IO0	QSPI_D0 [N25Q128A13EF840E_DQ0]
44	PE13	I/O	QUADSPI_BK1_IO1	QSPI_D1 [N25Q128A13EF840E_DQ1]
45	PE14	I/O	QUADSPI_BK1_IO2	QSPI_D2 [N25Q128A13EF840E_DQ2]
46	PE15	I/O	QUADSPI_BK1_IO3	QSPI_D3 [N25Q128A13EF840E_DQ3]
47	PB10	I/O	I2C2_SCL	MFX_I2C_SLC [MFX_V2_I2C_SCL]
48	PB11	I/O	I2C2_SDA	MFX_I2C_SDA [MFX_V2_I2C_SDA]
49	VSS	Power		
50	VDD	Power		
51	PB12 **	I/O	LCD_SEG12	SEG20 [GH08172T_SEG20]
52	PB13 **	I/O	LCD_SEG13	SEG3 [GH08172T_SEG3]
53	PB14 **	I/O	LCD_SEG14	SEG19 [GH08172T_SEG19]
54	PB15 **	I/O	LCD_SEG15	SEG4 [GH08172T_SEG4]
55	PD8 **	I/O	LCD_SEG28	SEG18 [GH08172T_SEG18]
56	PD9 **	I/O	LCD_SEG29	SEG5 [GH08172T_SEG5]

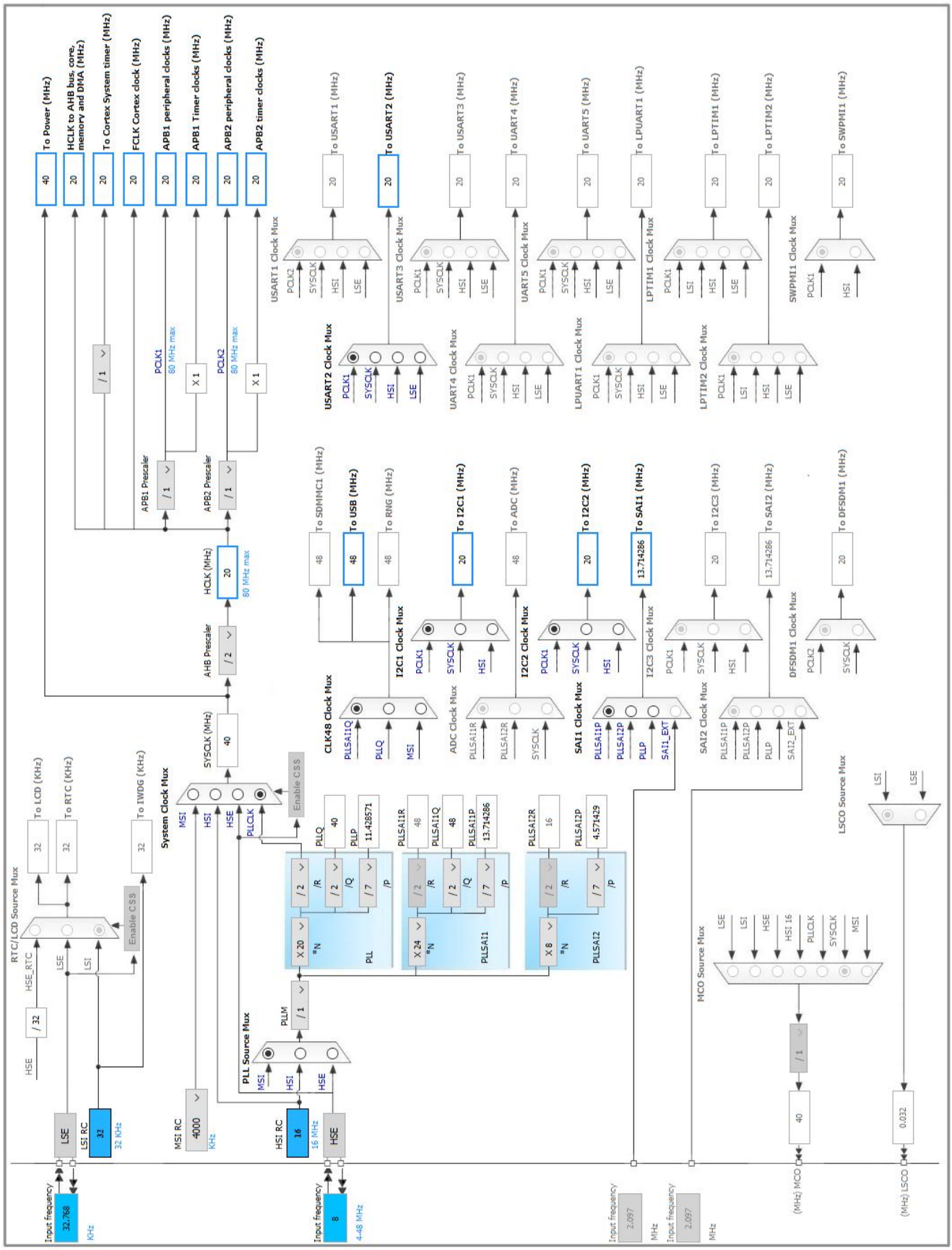
Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
57	PD10 **	I/O	LCD_SEG30	SEG17 [GH08172T_SEG17]
58	PD11 **	I/O	LCD_SEG31	SEG6 [GH08172T_SEG6]
59	PD12 **	I/O	LCD_SEG32	SEG16 [GH08172T_SEG16]
60	PD13 **	I/O	LCD_SEG33	SEG7 [GH08172T_SEG7]
61	PD14 **	I/O	LCD_SEG34	SEG15 [GH08172T_SEG15]
62	PD15 **	I/O	LCD_SEG35	SEG8 [GH08172T_SEG8]
63	PC6 **	I/O	LCD_SEG24	SEG14 [GH08172T_SEG14]
64	PC7 **	I/O	LCD_SEG25	SEG9 [GH08172T_SEG9]
65	PC8 **	I/O	LCD_SEG26	SEG13 [GH08172T_SEG13]
66	PC9 *	I/O	GPIO_Output	OTG_FS_PowerSwitchOn [STMPS2141STR_EN]
67	PA8 **	I/O	LCD_COM0	COM0 [GH08172T_COM0]
68	PA9 **	I/O	USART1_TX	
69	PA10 **	I/O	USART1_RX	
70	PA11	I/O	USB_OTG_FS_DM	OTG_FS_DM [EMIF02-USB03F2_D-out]
71	PA12	I/O	USB_OTG_FS_DP	OTG_FS_DP [EMIF02-USB03F2_D+out]
72	PA13 (JTMS-SWDIO)	I/O	SYS_JTMS-SWDIO	SWDIO
73	VDDUSB	Power		
74	VSS	Power		
75	VDD	Power		
76	PA14 (JTCK-SWCLK)	I/O	SYS_JTCK-SWCLK	SWCLK
77	PA15 (JTDI) **	I/O	LCD_SEG17	SEG10 [GH08172T_SEG10]
78	PC10	I/O	GPIO_EXTI10	OTG_FS_OverCurrent [STMPS2141STR_FAULT]
79	PC11 *	I/O	GPIO_Output	OTG_FS_VBUS [EMIF02-USB03F2_Vbus]
81	PD0	I/O	GPIO_EXTI0	EXT_RST [SSM-104-L-DH_EXT_RST]
82	PD1	I/O	SPI2_SCK	MEMS_SCK [L3GD20_SCL/SPC]
83	PD2	I/O	GPIO_EXTI2	GYRO_INT1 [L3GD20_INT1]
84	PD3	I/O	SPI2_MISO	MEMS_MISO [L3GD20_SA0/SDO]
85	PD4	I/O	SPI2_MOSI	MEMS_MOSI [L3GD20_SDA/SDI/SDO]
86	PD5	I/O	USART2_TX	USART_TX
87	PD6	I/O	USART2_RX	USART_RX

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
88	PD7 *	I/O	GPIO_Output	GYRO_CS [L3GD20_CS_I2C/SPI]
89	PB3 (JTDO-TRACESWO) *	I/O	GPIO_Output	M3V3_REG-ON
90	PB4 (NJTRST) **	I/O	LCD_SEG8	SEG11 [GH08172T_SEG11]
91	PB5 **	I/O	LCD_SEG9	SEG12 [GH08172T_SEG12]
92	PB6	I/O	I2C1_SCL	I2C1_SCL [SSM-104-L-DH_SCL]
93	PB7	I/O	I2C1_SDA	I2C1_SDA [SSM-104-L-DH_SDA]
94	BOOT0	Boot		
95	PB8	I/O	GPIO_EXTI8	GYRO_INT2 [L3D20_DRDY/INT2]
96	PB9 **	I/O	LCD_COM3	COM3 [GH08172T_COM3]
97	PE0 *	I/O	GPIO_Output	XL_CS [LSM303CTR_CS_XL]
98	PE1	I/O	GPIO_EXTI1	XL_INT [LSM303CTR_INT_XL]
99	VSS	Power		
100	VDD	Power		

* The pin is affected with an I/O function

** The pin is affected with a peripheral function but no peripheral mode is activated

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. I2C1

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	**0x00404C74 ***

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. I2C2

I2C: I2C

5.2.1. 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	**0x00404C74 ***

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

5.3. QUADSPI

Single Bank: Quad SPI Line

5.3.1. Parameter Settings:

General Parameters:

Clock Prescaler	255
Fifo Threshold	1
Sample Shifting	No Sample Shifting
Flash Size	1
Chip Select High Time	1 Cycle
Clock Mode	Low

5.4. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

Low Speed Clock (LSE) : Crystal/Ceramic Resonator

5.4.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Instruction Cache	Enabled
Prefetch Buffer	**Enabled ***
Data Cache	Enabled
Flash Latency(WS)	1 WS (2 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
MSI Calibration Value	0
MSI Auto Calibration	Enabled
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

LSE Drive Capability	LSE oscillator low drive capability

Power Parameters:

Power Regulator Voltage Scale	Power Regulator Voltage Scale 1

5.5. SAI1

Mode: Master with Master Clock Out

Mode: Synchronous Slave

5.5.1. Parameter Settings:

SAI A:

Basic Parameters	
Protocol	Free
Audio Mode	Master Transmit
Frame Length	8 bits
Data Size	24 Bits
Slot Size	DataSize
Output Mode	Stereo
Companding Mode	No companding mode
SAI SD Line Output Mode	Driven
Frame Parameters	
First Bit	MSB First
Frame Synchro Active Level Length	1
Frame Synchro Definition	Start Frame
Frame Synchro Polarity	Active Low
Frame Synchro Offset	First Bit
Slot Parameters	
First Bit Offset	0
Number of Slots	1
Slot Active Final Value	0x00000000
Slot Active	Neither
Clock Parameters	
Master Clock Divider	Enabled
Audio Frequency	192 KHz
Real Audio Frequency	0
Error between Selected	0
Clock Strobing	Falling Edge
Advanced Parameters	
Fifo Threshold	Empty
Output Drive	Disabled

Synchronization External	Disabled

SAI B:

Basic Parameters	
Protocol	Free
Audio Mode	Slave Receive
Frame Length (only Even Values)	24
Data Size	24 Bits
Slot Size	DataSize
Output Mode	Stereo
Companding Mode	No companding mode
SAI SD Line Output Mode	Driven
Frame Parameters	
First Bit	MSB First
Frame Synchro Active Level Length	1
Frame Synchro Definition	Start Frame
Frame Synchro Polarity	Active Low
Frame Synchro Offset	First Bit
Slot Parameters	
First Bit Offset	0
Number of Slots	1
Slot Active Final Value	0x00000000
Slot Active	Neither
Clock Parameters	
Real Audio Frequency	0
Error between Selected	0
Clock Strobing	Falling Edge
Advanced Parameters	
Fifo Threshold	Empty
Output Drive	Disabled
Synchronization External	Disabled

5.6. SPI2

Mode: Full-Duplex Master

5.6.1. Parameter Settings:

Basic Parameters:

Frame Format	Motorola
Data Size	4 Bits
First Bit	MSB First

Clock Parameters:

Prescaler (for Baud Rate)	2
Baud Rate	**10.0 MBits/s ***
Clock Polarity (CPOL)	Low
Clock Phase (CPHA)	1 Edge

Advanced Parameters:

CRC Calculation	Disabled
NSSP Mode	Enabled
NSS Signal Type	Software

5.7. SYS

Debug: Serial Wire

Timebase Source: SysTick

5.8. USART2

Mode: Asynchronous

5.8.1. Parameter Settings:

Basic Parameters:

Baud Rate	115200
Word Length	7 Bits (including Parity)
Parity	None
Stop Bits	1

Advanced Parameters:

Data Direction	Receive and Transmit
Over Sampling	16 Samples
Single Sample	Disable

Advanced Features:

Auto Baudrate	Disable
TX Pin Active Level Inversion	Disable
RX Pin Active Level Inversion	Disable
Data Inversion	Disable
TX and RX Pins Swapping	Disable
Overrun	Enable
DMA on RX Error	Enable
MSB First	Disable

5.9. USB_OTG_FS

Mode: Host_Only

5.9.1. Parameter Settings:

Speed	Full Speed 12MBit/s
Enable internal IP DMA	Disabled
Signal start of frame	Disabled

5.10. USB_HOST

Class for FS IP: Communication Host Class (Virtual Port Com)

5.10.1. Parameter Settings:

Host Configuration:

USBH_MAX_NUM_ENDPOINTS (Maximum number of endpoints)	2
USBH_MAX_NUM_INTERFACES (Maximun number of interfaces)	2
USBH_MAX_NUM_SUPPORTED_CLASS (Maximun number of supported class)	1
USBH_MAX_NUM_CONFIGURATION (Maximun number of supported configuration)	1
USBH_KEEP_CFG_DESCRIPTOR (Keep the configuration into RAM)	Enabled
USBH_MAX_SIZE_CONFIGURATION (Maximun size in bytes for the Configuration Descriptor)	256
USBH_MAX_DATA_BUFFER (Maximun size of temporary data)	512
USBH_DEBUG_LEVEL (USBH Debug Level)	0: No debug message

CMSIS_RTOS:

USBH_USE_OS (Enable the support of an RTOS)	Disabled

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
I2C1	PB6	I2C1_SCL	Alternate Function Open Drain	Pull-up	**Very High** *	I2C1_SCL [SSM-104-L-DH_SCL]
	PB7	I2C1_SDA	Alternate Function Open Drain	Pull-up	**Very High** *	I2C1_SDA [SSM-104-L-DH_SDA]
I2C2	PB10	I2C2_SCL	Alternate Function Open Drain	Pull-up	**Very High** *	MFX_I2C_SLC [MFX_V2_I2C_SCL]
	PB11	I2C2_SDA	Alternate Function Open Drain	Pull-up	**Very High** *	MFX_I2C_SDA [MFX_V2_I2C_SDA]
QUADSPI	PE10	QUADSPI_CLK	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_CLK [N25Q128A13EF840E_C]
	PE11	QUADSPI_NCS	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_CS [N25Q128A13EF840E_S#]
	PE12	QUADSPI_BK1_IO0	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_D0 [N25Q128A13EF840E_DQ0]
	PE13	QUADSPI_BK1_IO1	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_D1 [N25Q128A13EF840E_DQ1]
	PE14	QUADSPI_BK1_IO2	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_D2 [N25Q128A13EF840E_DQ2]
	PE15	QUADSPI_BK1_IO3	Alternate Function Push Pull	No pull-up and no pull-down	**Very High** *	QSPI_D3 [N25Q128A13EF840E_DQ3]
RCC	PC14-OSC32_IN (PC14)	RCC_OSC32_IN	n/a	n/a	n/a	
	PC15-OSC32_OUT (PC15)	RCC_OSC32_OUT	n/a	n/a	n/a	
	PH0-OSC_IN (PH0)	RCC_OSC_IN	n/a	n/a	n/a	
	PH1-OSC_OUT (PH1)	RCC_OSC_OUT	n/a	n/a	n/a	

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
SAI1	PE2	SAI1_MCLK_A	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	SAI1_MCK [CS43L22_MCLK]
	PE4	SAI1_FS_A	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	SAI1_FS [CS43L22_LRCK]
	PE5	SAI1_SCK_A	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	SAI1_SCK [CS43L22_SCLK]
	PE6	SAI1_SD_A	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	SAI1_SD [CS43L22_SDIN]
	PE7	SAI1_SD_B	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	AUDIO_DIN [MP34DT01_DOUT]
SPI2	PD1	SPI2_SCK	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	MEMS_SCK [L3GD20_SCL/SPC]
	PD3	SPI2_MISO	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	MEMS_MISO [L3GD20_SA0/SDO]
	PD4	SPI2_MOSI	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	MEMS_MOSI [L3GD20_SDA/SDI/SDO]
SYS	PA13 (JTMS-SWDIO)	SYS_JTMS-SWDIO	n/a	n/a	n/a	SWDIO
	PA14 (JTCK-SWCLK)	SYS_JTCK-SWCLK	n/a	n/a	n/a	SWCLK
USART2	PD5	USART2_TX	Alternate Function Push Pull	**Pull-up ***	**Very High ***	USART_TX
	PD6	USART2_RX	Alternate Function Push Pull	**Pull-up ***	**Very High ***	USART_RX
USB_OTG_FS	PA11	USB_OTG_FS_DM	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	OTG_FS_DM [EMIF02-USB03F2_D-out]
	PA12	USB_OTG_FS_DP	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	OTG_FS_DP [EMIF02-USB03F2_D+out]
Single Mapped Signals	PC3	LCD_VLCD	Alternate Function Push Pull	No pull-up and no pull-down	Low	VLCD
	PA6	LCD_SEG3	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG23 [GH08172T_SEG23]
	PA7	LCD_SEG4	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG0 [GH08172T_SEG0]
	PC4	LCD_SEG22	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG22 [GH08172T_SEG22]
	PC5	LCD_SEG23	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG1 [GH08172T_SEG1]
	PB0	LCD_SEG5	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG21 [GH08172T_SEG21]
	PB1	LCD_SEG6	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG2 [GH08172T_SEG2]

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PE9	SAI1_FS_B	Alternate Function Push Pull	No pull-up and no pull-down	Low	AUDIO_CLK [MP34DT01_CLK]
	PB12	LCD_SEG12	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG20 [GH08172T_SEG20]
	PB13	LCD_SEG13	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG3 [GH08172T_SEG3]
	PB14	LCD_SEG14	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG19 [GH08172T_SEG19]
	PB15	LCD_SEG15	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG4 [GH08172T_SEG4]
	PD8	LCD_SEG28	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG18 [GH08172T_SEG18]
	PD9	LCD_SEG29	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG5 [GH08172T_SEG5]
	PD10	LCD_SEG30	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG17 [GH08172T_SEG17]
	PD11	LCD_SEG31	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG6 [GH08172T_SEG6]
	PD12	LCD_SEG32	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG16 [GH08172T_SEG16]
	PD13	LCD_SEG33	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG7 [GH08172T_SEG7]
	PD14	LCD_SEG34	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG15 [GH08172T_SEG15]
	PD15	LCD_SEG35	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG8 [GH08172T_SEG8]
	PC6	LCD_SEG24	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG14 [GH08172T_SEG14]
	PC7	LCD_SEG25	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG9 [GH08172T_SEG9]
	PC8	LCD_SEG26	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG13 [GH08172T_SEG13]
	PA8	LCD_COM0	Alternate Function Push Pull	No pull-up and no pull-down	Low	COM0 [GH08172T_COM0]
	PA9	USART1_TX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PA10	USART1_RX	Alternate Function Push Pull	No pull-up and no pull-down	**Very High ***	
	PA15 (JTDI)	LCD_SEG17	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG10 [GH08172T_SEG10]
	PB4 (NJTRST)	LCD_SEG8	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG11 [GH08172T_SEG11]
	PB5	LCD_SEG9	Alternate Function Push Pull	No pull-up and no pull-down	Low	SEG12 [GH08172T_SEG12]
	PB9	LCD_COM3	Alternate Function Push Pull	No pull-up and no pull-down	Low	COM3 [GH08172T_COM3]
GPIO	PE3	GPIO_Output	Output Push Pull	No pull-up and no pull-down	**High ***	AUDIO_RST [CS43L22_RESET]
	PC13	GPIO_EXTI13	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	**n/a**	MFX_IRQ_OUT [MFX_V2_IRQOUT]

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
	PC0	GPIO_Input	Input mode	No pull-up and no pull-down	**n/a**	
	PC1	GPIO_Input	Input mode	No pull-up and no pull-down	**n/a**	MAG_INT [LSM303CTR_MAG_INT]
	PC2	GPIO_Input	Input mode	No pull-up and no pull-down	**n/a**	MAG_DRDY [LSM303CTR_DRDY_MAG]
	PA0	GPIO_Input	Input mode	**Pull-down ***	**n/a**	JOY_CENTER [MT-008A_CENTER]
	PA1	GPIO_Input	Input mode	**Pull-down ***	**n/a**	JOY_LEFT [MT-008A_LEFT]
	PA2	GPIO_Input	Input mode	**Pull-down ***	**n/a**	JOY_RIGHT [MT-008A_RIGHT]
	PA3	GPIO_Input	Input mode	**Pull-down ***	**n/a**	JOY_UP [MT-008A_UP]
	PA4	GPIO_EXTI4	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	**n/a**	MFX_WAKEUP [MFX_V2_WAKEUP]
	PA5	GPIO_Input	Input mode	**Pull-down ***	**n/a**	JOY_DOWN [MT-008A_DOWN]
	PB2	GPIO_Output	Output Push Pull	**Pull-up ***	**Very High ***	LD_R [LED red]
	PE8	GPIO_Output	Output Push Pull	**Pull-up ***	**Very High ***	LD_G [LED_Green]
	PC9	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	OTG_FS_PowerSwitchOn [STMPS2141STR_EN]
	PC10	GPIO_EXTI10	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	n/a	OTG_FS_OverCurrent [STMPS2141STR_FAULT]
	PC11	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	OTG_FS_VBUS [EMIF02-USB03F2_Vbus]
	PD0	GPIO_EXTI0	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	n/a	EXT_RST [SSM-104-L-DH_EXT_RST]
	PD2	GPIO_EXTI2	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	n/a	GYRO_INT1 [L3GD20_INT1]
	PD7	GPIO_Output	Output Push Pull	No pull-up and no pull-down	**Very High ***	GYRO_CS [L3GD20_CS_I2C/SPI]
	PB3 (JTDO-TRACESWO)	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	M3V3_REG-ON
	PB8	GPIO_EXTI8	**External Event Mode**	No pull-up and no pull-down	n/a	GYRO_INT2

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
			with Rising edge trigger detection *			[L3D20_DRDY/INT2]
	PE0	GPIO_Output	Output Push Pull	No pull-up and no pull-down	Low	XL_CS [LSM303CTR_CS_XL]
	PE1	GPIO_EXTI1	**External Event Mode with Rising edge trigger detection ***	No pull-up and no pull-down	n/a	XL_INT [LSM303CTR_INT_XL]

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
Prefetch 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
RCC global interrupt	true	0	0
USB OTG FS global interrupt	true	0	0
PVD/PVM1/PVM2/PVM3/PVM4 interrupts through EXTI lines 16/35/36/37/38	unused		
Flash global interrupt	unused		
I2C1 event interrupt	unused		
I2C1 error interrupt	unused		
I2C2 event interrupt	unused		
I2C2 error interrupt	unused		
SPI2 global interrupt	unused		
USART2 global interrupt	unused		
QUADSPI global interrupt	unused		
SAI1 global interrupt	unused		
FPU global interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32L4
Line	STM32L4x6
MCU	STM32L476VGTx
Datasheet	025976_Rev4

7.2. Parameter Selection

Temperature	25
Vdd	null

8. Software Project

8.1. Project Settings

Name	Value
Project Name	UART STM32
Project Folder	C:\Users\Stefano\Desktop\UART STM32
Toolchain / IDE	MDK-ARM V5
Firmware Package Name and Version	STM32Cube FW_L4 V1.11.0

8.2. 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

9. Software Pack Report