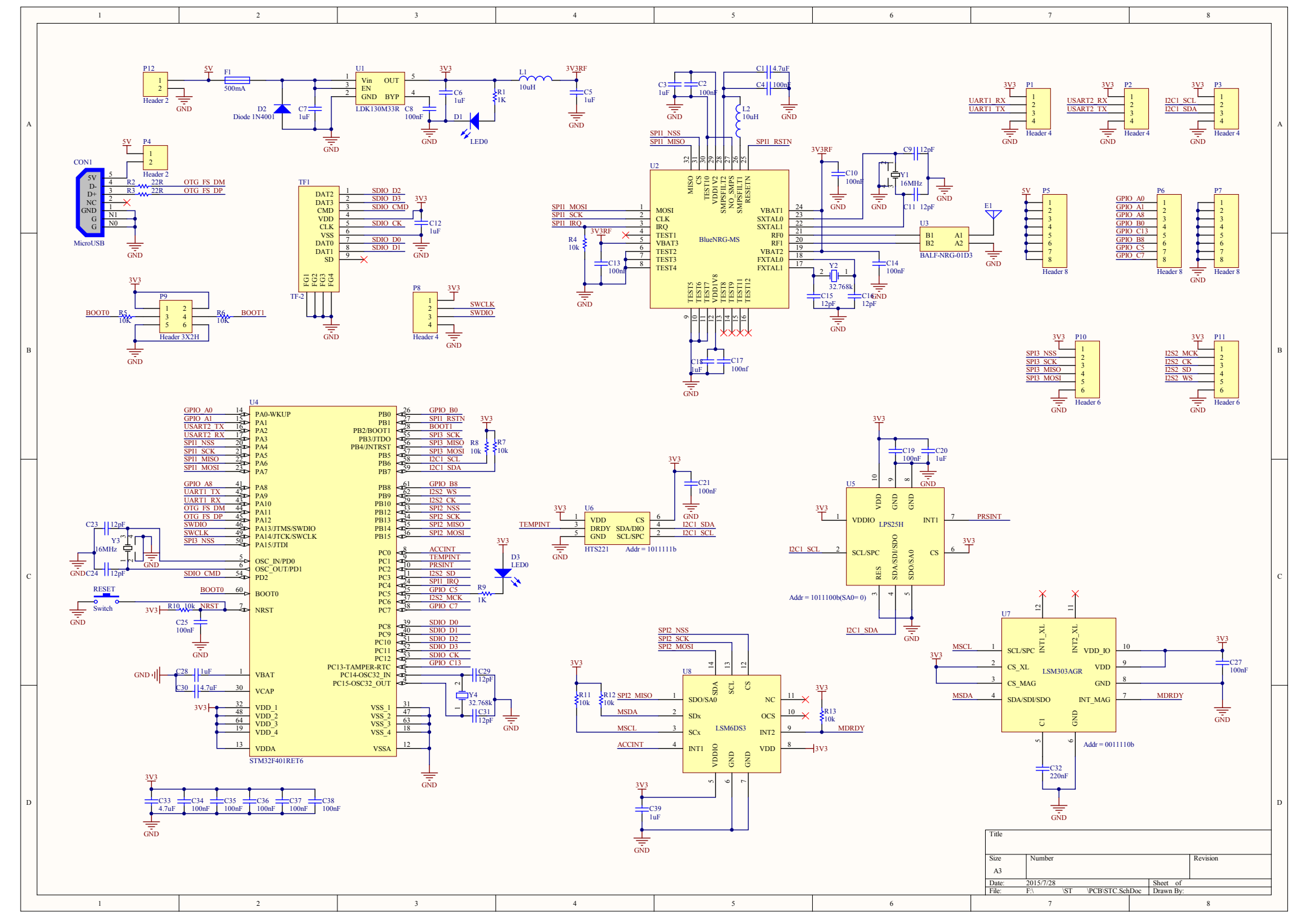
P12
Header 2
5V
F1
500mA
D2
Diode 1N4001
C7
1uF
U1
Vin
EN
GND
OUT
BYP
LDK130M33R
3V3
C6
1uF
C8
100nF
R1
1K
D1
LED0
L1
10uH
3V3RF
C5
1uF
C3
1uF
C2
100nF
C1
4.7uF
C4
100nF
L2
10uH
P1
UART1_RX
UART1_TX
Header 4
P2
USART2_RX
USART2_TX
P3
I2C1_SCL
I2C1_SDA
CON1
MicroUSB
P4
R2
22R
OTG_FS_DM
R3
22R
OTG_FS_DP
TF1
TF-2
DAT2
DAT3
CMD
VDD
CLK
VSS
DAT0
DAT1
SD
SDIO_D2
SDIO_D3
SDIO_CMD
SDIO_CK
SDIO_D0
SDIO_D1
C12
1uF
P8
SWCLK
SWDIO
P9
BOOT0
R5
10K
R6
10K
BOOT1
Header 3X2H
U2
BlueNRG-MS
SPI1_NSS
SPI1_MISO
SPI1_MOSI
SPI1_SCK
SPI1_IRQ
SPI1_RSTN
MISO
MOSI
CLK
IRQ
CS
TEST1
TEST2
TEST3
TEST4
TEST5
TEST6
TEST7
TEST8
TEST9
TEST10
TEST11
TEST12
VBAT1
VBAT2
VBAT3
VDD1V2
VDD1V8
SXTAL0
SXTAL1
FXTAL0
FXTAL1
RF0
RF1
SMPSFILT1
SMPSFILT2
NO_SMPS
RESETN
R4
10k
C13
100nF
C10
100nF
C9
12pF
Y1
16MHz
C11
12pF
C14
100nF
Y2
32.768k
C15
12pF
C16
12pF
C18
1uF
C17
100nf
U3
B1
B2
A1
A2
BALF-NRG-01D3
E1
P5
P6
P7
GPIO_A0
GPIO_A1
GPIO_A8
GPIO_B0
GPIO_C13
GPIO_B8
GPIO_C5
GPIO_C7
Header 8
P10
P11
SPI3_NSS
SPI3_SCK
SPI3_MISO
SPI3_MOSI
I2S2_MCK
I2S2_CK
I2S2_SD
I2S2_WS
Header 6
U4
STM32F401RET6
PA0-WKUP
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13/JTMS/SWDIO
PA14/JTCK/SWCLK
PA15/JTDI
PB0
PB1
PB2/BOOT1
PB3/JTDO
PB4/JNTRST
PB5
PB6
PB7
PB8
PB9
PB10
PB12
PB13
PB14
PB15
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13-TAMPER-RTC
PC14-OSC32_IN
PC15-OSC32_OUT
PD2
OSC_IN/PD0
OSC_OUT/PD1
NRST
VBAT
VCAP
VDD_1
VDD_2
VDD_3
VDD_4
VDDA
VSS_1
VSS_2
VSS_3
VSS_4
VSSA
GPIO_A0
GPIO_A1
USART2_TX
USART2_RX
SPI1_NSS
SPI1_SCK
SPI1_MISO
SPI1_MOSI
GPIO_A8
UART1_TX
UART1_RX
OTG_FS_DM
OTG_FS_DP
SWDIO
SWCLK
SPI3_NSS
SDIO_CMD
BOOT0
GPIO_B0
SPI1_RSTN
BOOT1
SPI3_SCK
SPI3_MISO
SPI3_MOSI
I2C1_SCL
I2C1_SDA
GPIO_B8
I2S2_WS
I2S2_CK
SPI2_NSS
SPI2_SCK
SPI2_MISO
SPI2_MOSI
ACCINT
TEMPINT
PRSINT
I2S2_SD
SPI1_IRQ
GPIO_C5
I2S2_MCK
GPIO_C7
SDIO_D0
SDIO_D1
SDIO_D2
SDIO_D3
SDIO_CK
GPIO_C13
C23
12pF
Y3
16MHz
C24
12pF
RESET
Switch
R10
10k
C25
100nF
R8
10k
R7
10k
D3
LED0
R9
1K
C28
1uF
C30
4.7uF
C29
12pF
Y4
32.768k
C31
12pF
C33
4.7uF
C34
100nF
C35
100nF
C36
100nF
C37
100nF
C38
100nF
U6
HTS221
VDD
DRDY
GND
CS
SDA/DIO
SCL/SPC
Addr = 1011111b
C21
100nF
U5
LPS25H
VDDIO
SCL/SPC
RES
SDA/SDI/SDO
SDO/SA0
CS
INT1
C19
100nF
C20
1uF
Addr = 1011100b(SA0= 0)
U8
LSM6DS3
SDO/SA0
SDx
SCx
INT1
SCL
CS
NC
OCS
INT2
VDD
VDDIO
GND
R11
10k
R12
10k
R13
10k
C39
1uF
U7
LSM303AGR
SCL/SPC
CS_XL
CS_MAG
SDA/SDI/SDO
INT1_XL
INT2_XL
VDD_IO
VDD
GND
INT_MAG
C1
MSCL
MSDA
MDRDY
C27
100nF
C32
220nF
Addr = 0011110b
Title
Size
A3
Number
Revision
Date:
2015/7/28
File:
F:\
\ST
\PCB\STC.SchDoc
Sheet of
Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
4.7uF	Capacitor	C1, C30, C33	CAPC1608X06L	Cap	3
100nF	Capacitor	C2, C4, C8, C10, C13, C14, C17, C19, C21, C25, C27, C34, C35, C36, C37, C38	CAPC1005X04L	Cap	16
1uF	Capacitor	C3, C5, C6, C7, C12, C18, C20, C28, C39	CAPC1608X06L	Cap	9
12pF	Capacitor	C9, C11, C15, C16, C23, C24, C29, C31	CAPC1005X04L	Cap, Cap Semi	8
220nF	Capacitor	C32	CAPC1005X04L	Cap	1
MicroUSB		CON1	Micro_USB	MicroUSB_A	1
LED0	Typical INFRARED GaAs LED	D1, D3	INDC1608L	LED0	2
Diode 1N4001	1 Amp General Purpose Rectifier	D2	SOD323	Diode 1N4001	1
Antenna	Generic Antenna	E1	INDM9621X21N	Antenna	1
500mA	Fuse	F1	6-0805_N	Fuse 1	1
10uH	Inductor	L1, L2	INDC1608X06L	Inductor	2
Header 4	Header, 4-Pin	P1, P2, P3, P8	HDR1X4	Header 4	4
Header 2	Header, 2-Pin	P4	HDR1X2	Header 2	1
Header 8	Header, 8-Pin	P5, P6, P7	HDR1X8	Header 8	3
Header 3X2H	Header, 3-Pin, Dual row, Right Angle	P9	HDR2X3	Header 3X2H	1
Header 6	Header, 6-Pin	P10, P11	HDR1X6	Header 6	2
Header 2	Header, 2-Pin	P12	SIP_2	Header 2	1
1K	Resistor	R1, R9	INDC1005X04L	Res1	2
22R	Resistor	R2, R3	INDC1005X04L	Res1	2
10k	Resistor	R4, R5, R6, R7, R8, R10, R11, R12, R13	INDC1005X04L	Res1	9
Switch	Micro miniature pushbutton surface Switch	RESET	SW_THT_4x4x1.5	SW THT 6x6x5	1
TF-2	TF-2	TF1	TF-2	TF-2	1
LDK130M33R	LDK130M33R	U1	SOT23-5L	LDK130M33R	1
BlueNRG-MS	BlueNRG-MS	U2	QFN32	BlueNRG-MS	1
BALF-NRG-01D3	BALF-NRG-01D3	U3	BALF-PK	BALF-NRG-01D3	1
STM32F401RET6	STM32 ARM-based 32-bit MCU with 256 Kbytes Flash, 64-pin LQFP, Industrial Temperature	U4	LQFP64_N	STM32F401RET6	1
LPS25H	LPS25H	U5	HLGA-10L	LPS25H	1
HTS221	HTS221	U6	HLGA-6L	HTS221	1
LSM303AGR	LSM303AGR	U7	LGA12	LSM303AGR	1
LSM6DS3	LSM6DS3	U8	LGA-14L	LSM6DS3	1
16MHz		Y1, Y3	3225	3225	2
32.768k	Crystal Oscillator	Y2, Y4	XTAL_3215	XTAL	2