BATT_RTC

GND

C1 10% 0.1uF

BATT

C2 10uF 0402

GND

L1 0603 4.7uH

GND

S1

1 3 2 4

Q1 SI2319DS

R4 0201 1M

BATT1 BATT_PADS

GND

Q3 AP2318GEN POWER_CTRL

R8 0201 1M

GND GND

U1

RT9278_FB 1 FB 0.8V LFB 10 GND

2 COMP LDRI 9 LDRI

GND 3 GND PGND 8

GND 4 EN OSC 600kHz Current sense VDD 7 C4 1.0uF 0402 GND

5 LX VOUT 6

GND C3 10% 2200pF 0201 R2 0201 2.43k

C7 10uF 0402

GND

RT9278

GND 11

C5 10uF 0402

GND

R5 0201 470k

Q2 AO3435L

LDRI

C6 10% 100pF 0201

3V3

R6 0201 470k RT9278_FB

R7 0201 150k

GND

3V3

C12 10% 0.1uF 0201 C13 10% 0.1uF 0201 C14 10% 0.1uF 0201

GND GND GND

3V3

R9 0402 *R

FB1 FERR FB_20_0402

R11 0402 *R

BATT_RTC

C9 10% 0.1uF 0201

GND

C10 10% 0.1uF 0201

GND

BATT

R10 0201 1k

C8 10% 0.1uF 0201

GND

BATT_VOLTAGE

RF_CH_1 RF_CH_2 RF_CH_3 RF_CH_4 RF_CH_5 RF_CH_6

LED_CTRL_0 R15 200R
LED_CTRL_1 R16 200R
LED_CTRL_2 R17 200R
LED_CTRL_3 R18 200R
LED_CTRL_4 R19 200R
LED_CTRL_5 R21 200R
LOW_BATT R22 200R
SWCLK/PA14 R23 200R
POWER_CTRL R25 200R

U2

6 PA0-CK_IN VDD 1
7 PA1 VDD 17
8 PA2 VDDA 5
9 PA3
10 PA4 NRST 4 NRST
11 PA5
12 PA6
13 PA7 PB0 14
18 PA8 PB1 15
19 PA9 PB3 26
20 PA10 PB4 27
21 PA11 PB5 28
22 PA12 PB6 29
23 PA13 PB7 30
24 PA14 PB9-BOOT0 31
25 PA15

2 PC14-OSC32_IN
3 PC15-OSC32_OUT

16 VSS
32 VSS

STM32L052x6

GND

R24 10k 3V3

R26 10k

GND

3V3

R20 0201 4.7k NRST

C11 10% 0.1uF 0201

GND

3V3

LD1 LED RED 0603 LOW_BATT

R14 200R

SWCLK/PA14 R12 22R SWCLK
LOW_BATT R13 22R SWDIO NRST

3V3

J1
1 SCL
2 SDA
3 3V3
4 GND
5 NRST

SPI-HEADER_2MM

GND

8

LED_CTRL_3 LED_CTRL_1
LD8
LED YELLOW 0603

LED_CTRL_5 LED_CTRL_3
LD15
LED GREEN 0603

LED_CTRL_0 LED_CTRL_4
LD20
LED GREEN 0603

8

4

LED_CTRL_3 LED_CTRL_0
LD4
LED RED 0603

LED_CTRL_2 LED_CTRL_1
LD7
LED RED 0603

LED_CTRL_3 LED_CTRL_2
LD11
LED YELLOW 0603

LED_CTRL_4 LED_CTRL_3
LD14
LED GREEN 0603

LED_CTRL_0 LED_CTRL_2
LD18
LED GREEN 0603

LED_CTRL_0 LED_CTRL_5
LD21
LED GREEN 0603

4

2

LED_CTRL_2 LED_CTRL_0
LD3
LED RED 0603

LED_CTRL_5 LED_CTRL_0
LD6
LED RED 0603

LED_CTRL_5 LED_CTRL_1
LD10
LED YELLOW 0603

LED_CTRL_5 LED_CTRL_2
LD13
LED YELLOW 0603

LED_CTRL_0 LED_CTRL_1
LD17
LED GREEN 0603

LED_CTRL_1 LED_CTRL_2
LD22
LED GREEN 0603

2

1

LED_CTRL_1 LED_CTRL_0
LD2
LED RED 0603

LED_CTRL_4 LED_CTRL_0
LD5
LED RED 0603

LED_CTRL_4 LED_CTRL_1
LD9
LED YELLOW 0603

LED_CTRL_4 LED_CTRL_2
LD12
LED YELLOW 0603

LED_CTRL_5 LED_CTRL_4
LD16
LED GREEN 0603

LED_CTRL_0 LED_CTRL_3
LD19
LED GREEN 0603

1

H   **H**   **M**   **M**   **S**   **S**

Comment	Description	Designator	Footprint	LibRef	Quantity
BATT_PADS		BATT1	BATT_PADS	BATT_PADS	1
a-Cap_0.1uF_1	Capacitor 0.1uF, 10V, ±10%, X5R, ROHS C, 0201	C1, C12, C13, C14	0201W10STC	a-Cap_0.1uF_1	4
a-Cap_10uF	Capacitor 10uF, 20%, 4V, X5R, 0402	C2, C5, C7	0402	a-Cap_10uF	3
c-Cap_2200pF	Capacitor 2200pF 10% 10V X7R 0201	C3	0201W10STC	c-Cap_2200pF	1
a-Cap_1.0uF	Capacitor 1.0uF, +/-10%, 6.3V, X5R, RoHS C, 0402	C4	0402	a-Cap_1.0uF	1
c-Cap_100pF	Capacitor 100pF 10% 25V X7R 0201	C6	0201W10STC	c-Cap_100pF	1
a-Cap_0.1uF	Capacitor 0.1uF, 6.3V, +/-10%, X5R, ROHS C, 0201	C8, C9, C10, C11	0201W10STC	a-Cap_0.1uF	4
FB_20_0402	Ferrite Bead 20 Ohm 3.8A 11mOhm 0402	FB1	0402	FB20_0402	1
Inductor_0603_4.7uH	Inductor 4.7uH 0603 +/-20% 500mA 240mOhm	L1	0603	Inductor_0603_4.7uH	1
LED RED 0603	0603 Ultra Bright Red Led, 54mcd	LD1, LD2, LD3, LD4, LD5, LD6, LD7	0603LED_RED	LED_0603_R	7
LED YELLOW 0603	ULTRABRIGHT LED YELLOW 0603 0.8mm high	LD8, LD9, LD10, LD11, LD12, LD13	0603LED_YELLOW	LED_0603_YELLOW_SLM	6
LED GREEN 0603	LED GREEN 0603 0.8mm high	LD14, LD15, LD16, LD17, LD18, LD19, LD20, LD21, LD22	0603LED_GREEN	LED_0603_G_SLM_OLD	9
SI2319DS	P_Channel Mosfet 40V 2.3A,SOT-23	Q1	SOT23-A	SI2319DS	1
AO3435L	P_Channel Mosfet 20V 3.5A, 70mOhm SOT-23	Q2	SOT23-A	AO3435L	1
AP2318GEN	MOSFET N-Ch 30V 500mA SOT23	Q3	SOT23-A	AP2318GEN	1
R_0201_2430	Resistor 2,43k, 1%, 1/20W, 0201	R2	0201W10ST	R_0201_2430	1
R_0201_10000_1	Resistor 10k 1% 1/20W 0201	R3, R24, R26	0201W10ST	R_0201_10000_1	3
R_0201_1000000	Resistor 1M 1% 0201	R4, R8	0201W10ST	R_0201_1000000	2
R_0201_470000	Resistor 470k, 1%, 1/20W, 0201	R5, R6	0201W10ST	R_0201_470000	2
R_0201_150000	Resistor 150k 1% 0201	R7	0201W10ST	R_0201_150000	1
R_0402	template	R9, R11	R0402	R_0402	2
R_0201_1000	Resistor 1k, 1%, 1/20W, 0201	R10	0201W10ST	R_0201_1000	1
R_0201_22	Resistor 22R, 1%, 1/20W, 0201	R12, R13	0201W10ST	R_0201_22	2
R_0201_200	Resistor 200R, 1%, 1/20W, 0201	R14, R15, R16, R17, R18, R19, R21, R22, R23, R25	0201W10ST	R_0201_200	10
R_0201_4700_1	Resistor 4,7k 1% 0201	R20	0201W10ST	R_0201_4700_1	1
SW_PUSHBUT_RA_LowProfile_SMD	Right angle SMT tact switch_Low_Profile DragonWell	S1	KFC-A07-35	SW_PUSHBUT_RA_LowProfile_SMD	1
RT9278	Step up converter Vin=1.5...5.5V, Vout_max=5.5V, Ilim=2A, f=0.65MHz	U1	WDFN-10L_3X3	RT9278_PQV	1
STM32L052x6	Ultra-low-power 32-bit MCU Arm®-based Cortex®-M0+, up to 64 KB Flash memory, 8 KB SRAM, 2 KB EEPROM, USB, ADC, DAC	U2	QFP80P900X900X160-32N	STM32L052x6	1