可选电路
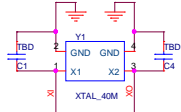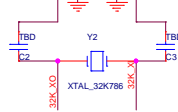
40MHz Xtal spec is in rBom
C1/C4 should be fine tuned
or not be SMT.please see
more detial in hardware
instruction.

External 32.768KHz XTAL(optional)

If crystal CL=7pF,
the two external load capacitors
could be ignored

如果使用CL=7pF的晶振,可以不用外部电容

L1,C7 用料规格请
严格按Rbom 中的值。
也可使用2.2uH+4.7uF的组合

L1,C7 are critical
components. Their spec
must follow requirments
in rBom

Optional 可选电路

V_supply    D1    VDD_BAT

Schottky

Optional Circuit for Reverse
Current Protection with
Schottky Diode.

防逆电压电路

TBD   Y1   TBD
      GND GND
C1   X1   X2   C4
XTAL_40M

40MHz 晶振电容设定
请参考硬件手册说明

TBD   Y2   TBD
C2        C3
32K_XO  32K_XI
XTAL_32K786

LX    L1    VDD12
      2.2uH
         C7
         4.7uF

VBAT range is 1.8-3.3V

VDD_BAT          VDD_BAT
0.1uF            4.7uF
C31              C5

#RESET    U4
        RESET      VDD_BAT
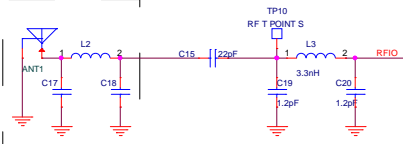              VCC
        GND
     RT9818B-18GV

open drain type reset IC
复位芯片

C9 C43'GND VIAS
must keep away from
C10,C14,C16,C21's
GND VIAS to avoid RF
noise.

C9 C43的GND过孔必须
远离C10,C14,C16,C21
的GND过孔。避免干扰RF

U8
RTL8762CMF

VDDCORE
VDIGI
P1_1(SWDCLK)
P1_0(SWDIO)
P0_0
P0_1
P0_2
P0_3
P0_4
VDDIO

VDD12
C9      C10
1uF     0.1uF

P0_3 must be NC.
if P0_3 input low level,
when RTL8762C power up,
IC would bypass flash code.

P0_3必须NC。
如果拉低P0_3后上电,
芯片会进入bypass flash 模式

C43
1uF/0.1uF

VDDIO range is 1.8V <= VDDIO <= VBAT.
Heavy loading on IOs need 1uF decouple.

VDDIO范围: 1.8<=VDDIO<=VBAT
VDDIO电容视IO负载轻重选择

Depending on
antenna design,
this
pi-matching is
decided by
customer

C15 must be
placed
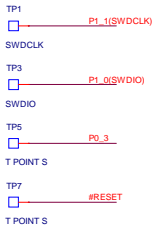for DC
BlockingRFIO
would be
damaged if it
is short to Vcc
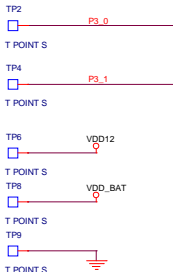
RF matching
component
should not be
welded separately

TP10
RF T POINT S

ANT1   L2        C15  22pF   L3  3.3nH   RFIO
C17  C18              C19  C20
                      1.2pF 1.2pF

天线部分pi matching
需要天线厂商根据
天线特性作调整

RFIO会被直流电
损坏,需要C15
做隔值保护

RF pi matching
电路不得只
SMT部分元件

C14,C16,C21
Capacitance
value, must used
with 1.0.7 patch
or higher

C14,C16,
C21的电容值,
必须搭配1.0.7版或
以上patch使用

C22 should be 1uF
for USB chargeing
or should be 0.1uF
for RCU design

C22可以选择不同大小,
调节reset 灵敏度

R1
10K

#RESET
C22
0.1uF

SWD 测试点
Test Point for SWD

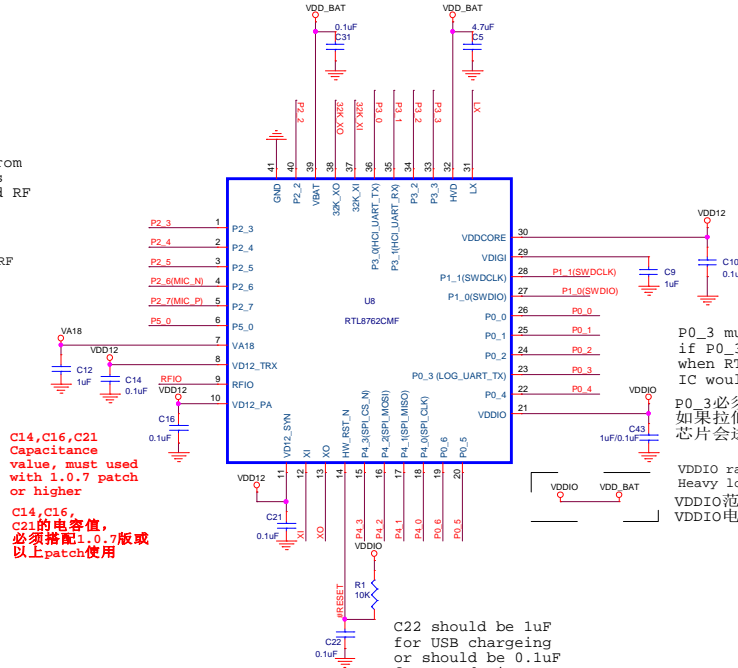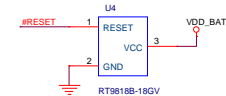TP1   P1_1(SWDCLK)
SWDCLK
TP3   P1_0(SWDIO)
SWDIO
TP5   P0_3
T POINT S
TP7   #RESET
T POINT S

P3_0, P3_1为量产UART 接口,复用需谨慎

P3_0, P3_1 is UART interface for
MP and BLE certification

TP2   P3_0
T POINT S
TP4   P3_1
T POINT S
TP6   VDD12
T POINT S
TP8   VDD_BAT
T POINT S
TP9
T POINT S

Key Component P/N And QVL

| Reference | Package | Part Number | QVL |
|---|---|---|---|
| L1 | L2520 | ZAIK 2520I2SB-4R7M | Zenith Tek |
|  | L0603 | ZVP-0603-4R7MC | Zenith Tek |
|  | L-L3WB | NIHB010T4R7MI | TAIYO YUDEN |
| L3 | L0402 | HI1005-series | ACX |
|  | L0402 | LL1005-FHSN3S | TOKO |
| Y1 | 3225type | XIL571150-R53-026 | Siward |
|  |  | TZ0308D | TST |
|  | 2520type | XIL581150-R53-027 | Siward |
|  |  | TZ0733E | TST |
|  | 2016type | XIL501150-R53-028 | Siward |
|  |  | TZ1209C | TST |
|  | 1612type | XIL901150-R53-029 | Siward |
| Y2 | 3215type | XIL721-S349-005 | Siward |
|  |  | TZ1106B | TST |
|  | 2016type | XIL741-S999-426 | Siward |
|  |  | 9HD3290006 | TXC |