9V

1Mohm电阻绕60多圈(0.2mm)
L2

L3:大磁环，每4圈留一个抽头，包括首尾共12个抽头，按顺序焊到12脚波段开关上，公共端接至天线

C24 106
C25 104
C18 Cap Pol 100uF
SOURCE
C19 104
R13 104
R14 561
Q2 9013
Q1 9013
T1
13圈    26圈
C20 100uF
C21 470uF
AGND
VT3 2SD882
小磁环 T2
C22 10p
15圈
9圈
4圈
Trans CT
L3
Inductor Adj
L4
D3
AGND
P2 BNC

小磁环3股绕线，再绕13圈
R16 22R
R6 101
C23 104

L4:小线圈17圈，天线从中间穿出，与LED串联，无正负

R17 0R
GND
AGND
小磁环，绿色的（外径22，内径14，高9）
大磁环，镍锌

H6  H2
H3  H4

3.3V
R1 1K
RESET
29 PC6
S1 RESET
GND

3.3V
18 AVCC
4 VCC
6 VCC
20 AREF
C2 104
GND
7 PB6
Y1 cstce16m  8 PB7
GND
GND

U1
PC0 23  A0
PC1 24  A1
PC2 25  A2
PC3 26  A3
PC4 27  A4
PC5 28  A5
ADC6 19  A6
ADC7 22  A7

PD0 30  RXD
PD1 31  TXD
PD2 32  D2
PD3 1   D3  Tx_Ctl
PD4 2   D4  CTRL
PD5 9   D5
PD6 10  D6
PD7 11  D7

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PB0 12  D8
PB1 13  D9
PB2 14  D10
PB3 15  D11
PB4 16  D12
PB5 17  D13

3.3V
C4 104
GND
5 AGND
3 GND
21 GND
GND

Y2
1    2
24MHz

3.3V
R2 202
R3 202

U2
1 XIN    XOUT 14
CTRL
2 S0     S1/SDA 13  A4
3 VDD    S2/SCL 12  A5
4 Vctrl  Y1 11
3.3V
5 GND    GND 10
6 VDDOUT Y2 9
7 VDDOUT Y3 8
GND
3.3V
GND
CDCE913
R4 200R
SOURCE

DC_IN
2
3 GND
1 5V
POWER

C3 22p
C16 22p
GND

C15 104
C14 106
GND

3.7V
BAT
1 VCC
2 GND
GND
BATTERY

TEST
L1 4.7uH
D1
Diode 1N5819
U4
R10 12.8K
9V
C11 44uF
C10 Cap Pol1 100uF

KEY1
2  2  3.7V
1  1  TEST
DIP-2
C5 106
GND

U3
1 IN  OUT 5
3 EN  GND NR
TPS79333
2
GND

3.3V
C6 106
C7 103
GND

C8
5V
GND

U5
4 Vcc
8
CE
BAT 5
3.7V
C9 106
7 CHRG TEMP 1
6 STDBY PROG 2
GND 3
R12 202
GND
TP4056

C13 44uF
C12 Cap Pol1 220uF
U4
3 VDD SW 2
4 EN
hx3033
1 AGND PGND FB 5
6
R7 2K
GND

VOUT=1.212V*(1+R10/R7)

TEST
R9 105
A2
R11 105
GND

D9
R8 102
red
D2
AGND

3.3V
SW
1 2 D5
3 4 D6
5 6 D7
7 8 D8
Header 4X2

ICSP1
D12
D13
RESET
1 2 D11
3
5
Header 3X2

| Comment | Description | Designator | Footprint | LibRef | Quantity |
|---|---|---|---|---|---|
| BATTERY | | BAT | DIP-2 | BATTERY | 1 |
| Cap | Capacitor | C2, C3, C4, C5, C6, C7, C8, C9, C14, C15, C16, C19, C22, C23, C24, C25 | 6-0805_N | Cap | 16 |
| Cap Pol1 | Polarized Capacitor (Radial) | C10, C12, C18, C20, C21 | 100uF | Cap Pol1 | 5 |
| Cap | Capacitor | C11, C13 | 100uF | Cap | 2 |
| Diode 1N5819 | 3 Amp Medium Power Silicon Rectifier Diode | D1 | SMB | Diode 1N5408 | 1 |
| LED3 | Typical BLUE SiC LED | D2 | LED_DIP | LED3 | 1 |
| LED0 | Typical INFRARED GaAs LED | D3 | LED-0 | LED0 | 1 |
| POWER | | DC_IN | DC10B | POW | 1 |
| HOLE | | H2, H3, H4, H6 | HOLE_3.0 | HOLE | 4 |
| Header 3X2 | Header, 3-Pin, Dual row | ICSP1 | HDR2X3 | Header 3X2 | 1 |
| DIP-2 | | KEY1 | HDR1X2 | DIP-2 | 1 |
| Inductor | Inductor | L1 | GDRH127 | Inductor | 1 |
| Inductor | Inductor | L2 | AXIAL-0.4 | Inductor | 1 |
| Inductor Adj | Adjustable Inductor | L3 | AXIAL-0.8 | Inductor Adj | 1 |
| Inductor | Inductor | L4 | 0402-A | Inductor | 1 |
| BNC | BNC Elbow Connector | P2 | SMB_V-RJ45 | BNC | 1 |
| 9013 | 8050/BCW846/BCW847 | Q1, Q2 | SOT-23R | NPN | 2 |
| Res2 | Resistor | R1, R2, R3, R4, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17 | 6-0805_N | Res2 | 16 |
| RESET | | S1 | KEY | KEY | 1 |
| Header 4X2 | Header, 4-Pin, Dual row | SW | HDR2X4 | Header 4X2 | 1 |
| 小磁环3股绕线，再绕13圈 | Transformer (Equivalent Circuit Model) | T1 | 4pin | Trans Eq | 1 |
| Trans CT | Center-Tapped Transformer (Coupled Inductor Model) | T2 | 5pin | Trans CT | 1 |
| atmega328p-au | | U1 | TQFP-32N-1 | atmega328p-au | 1 |
| CDCE913 | | U2 | CDCD913 | CDCE913 | 1 |
| TPS79333 | | U3 | SOT-23-5 | TPS79333 | 1 |
| hx3033 | | U4 | HX3033 | hx3033 | 1 |
| TP4056 | | U5 | SOP-PP-8 | TP4056 | 1 |
| 2SD882 | 8050/BCW846/BCW847 | VT3 | D882 | NPN | 1 |
| cstce16m | | Y1 | cstce8m | cstce8m | 1 |
| 24MHz | Crystal Oscillator | Y2 | XTAL_US | XTAL | 1 |