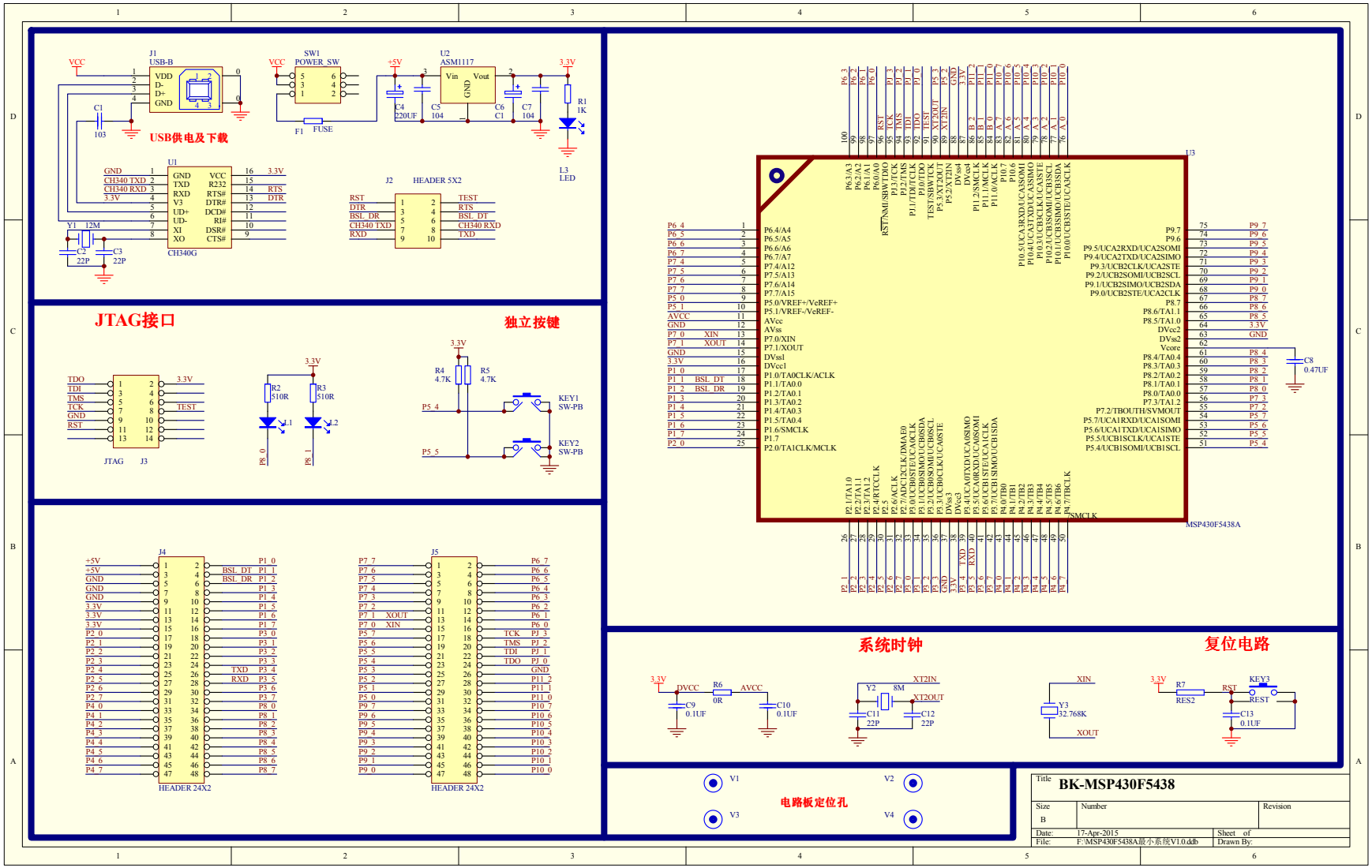
USB供电及下载
J1 USB-B
VDD D- D+ GND
VCC
C1 103
SW1 POWER_SW
F1 FUSE
+5V
U2 ASM1117
Vin Vout GND
C4 220UF
C5 104
C6 C1
C7 104
3.3V
R1 1K
L3 LED
U1 CH340G
GND TXD RXD V3 UD+ UD- XI XO
VCC R232 RTS# DTR# DCD# RI# DSR# CTS#
CH340 TXD
CH340 RXD
RTS
DTR
Y1 12M
C2 22P
C3 22P
J2 HEADER 5X2
RST DTR BSL_DR CH340 TXD RXD
TEST RTS BSL_DT CH340 RXD TXD
JTAG接口
TDO TDI TMS TCK GND RST
JTAG J3
独立按键
R2 510R
R3 510R
L1
L2
P6_0
P6_1
R4 4.7K
R5 4.7K
P5_4
P5_5
KEY1 SW-PB
KEY2 SW-PB
J4 HEADER 24X2
J5 HEADER 24X2
U3 MSP430F5438A
P6.4/A4
P6.5/A5
P6.6/A6
P6.7/A7
P7.4/A12
P7.5/A13
P7.6/A14
P7.7/A15
P5.0/VREF+/VeREF+
P5.1/VREF-/VeREF-
AVcc
AVss
P7.0/XIN
P7.1/XOUT
DVss1
DVcc1
P1.0/TA0CLK/ACLK
P1.1/TA0.0
P1.2/TA0.1
P1.3/TA0.2
P1.4/TA0.3
P1.5/TA0.4
P1.6/SMCLK
P1.7
P2.0/TA1CLK/MCLK
P9.7
P9.6
P9.5/UCA2RXD/UCA2SOMI
P9.4/UCA2TXD/UCA2SIMO
P9.3/UCB2CLK/UCA2STE
P9.2/UCB2SOMI/UCB2SCL
P9.1/UCB2SIMO/UCB2SDA
P9.0/UCB2STE/UCA2CLK
P8.7
P8.6/TA1.1
P8.5/TA1.0
DVcc2
DVss2
Vcore
P8.4/TA0.4
P8.3/TA0.3
P8.2/TA0.2
P8.1/TA0.1
P8.0/TA0.0
P7.3/TA1.2
P7.2/TBOUTH/SVMOUT
P5.7/UCA1RXD/UCA1SOMI
P5.6/UCA1TXD/UCA1SIMO
P5.5/UCB1SCLK/UCA1STE
P5.4/UCB1SOMI/UCB1SCL
C8 0.47UF
系统时钟
3.3V
DVCC
R6 0R
AVCC
C9 0.1UF
C10 0.1UF
Y2 8M
XT2IN
XT2OUT
C11 22P
C12 22P
复位电路
XIN
Y3 32.768K
XOUT
R7 RES2
RST
KEY3 REST
C13 0.1UF
V1
V2
V3
V4
电路板定位孔
Title BK-MSP430F5438
Size B
Number
Revision
Date: 17-Apr-2015
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File: F:\MSP430F5438A最小系统V1.0.ddb
Drawn By: