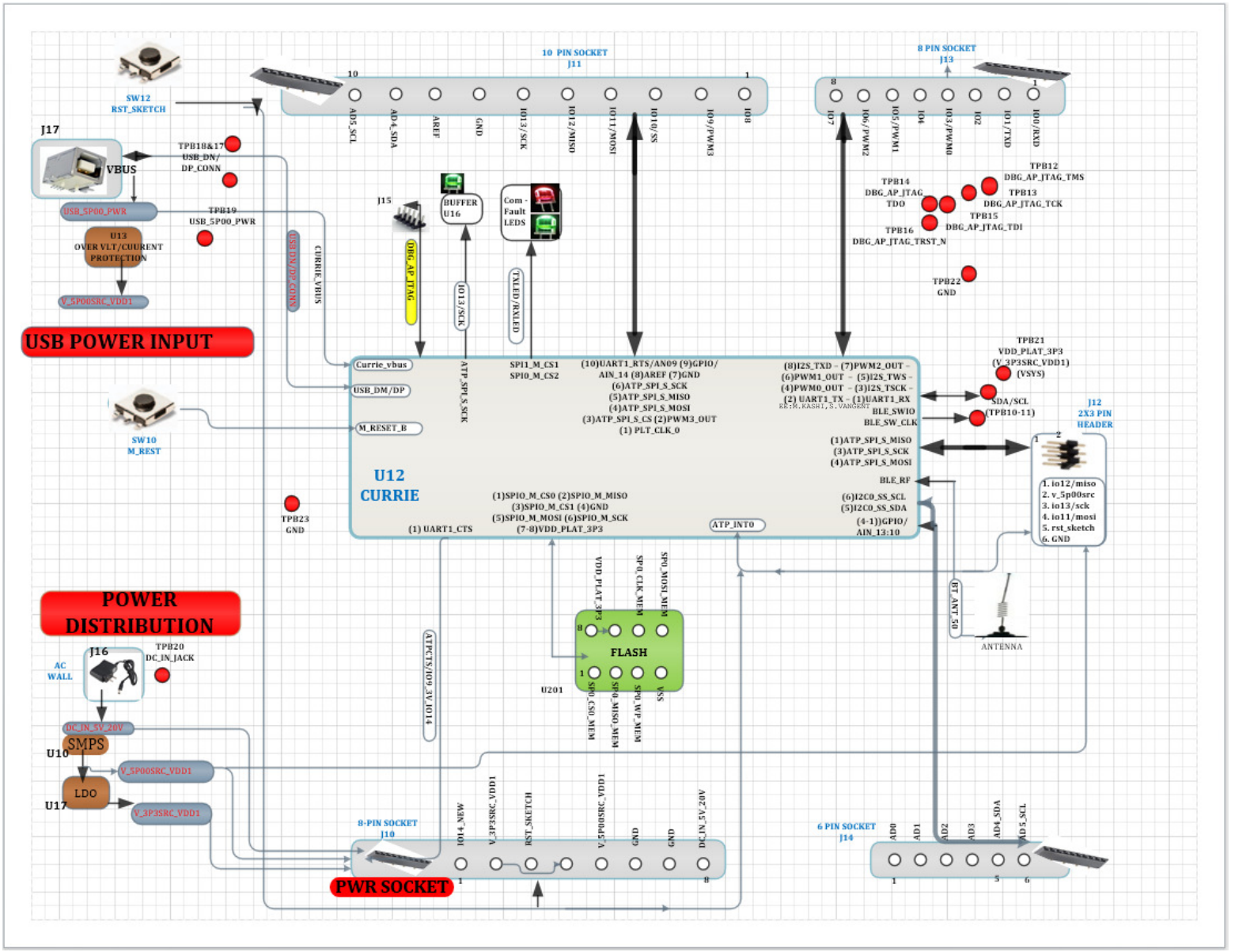

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ENJOY!

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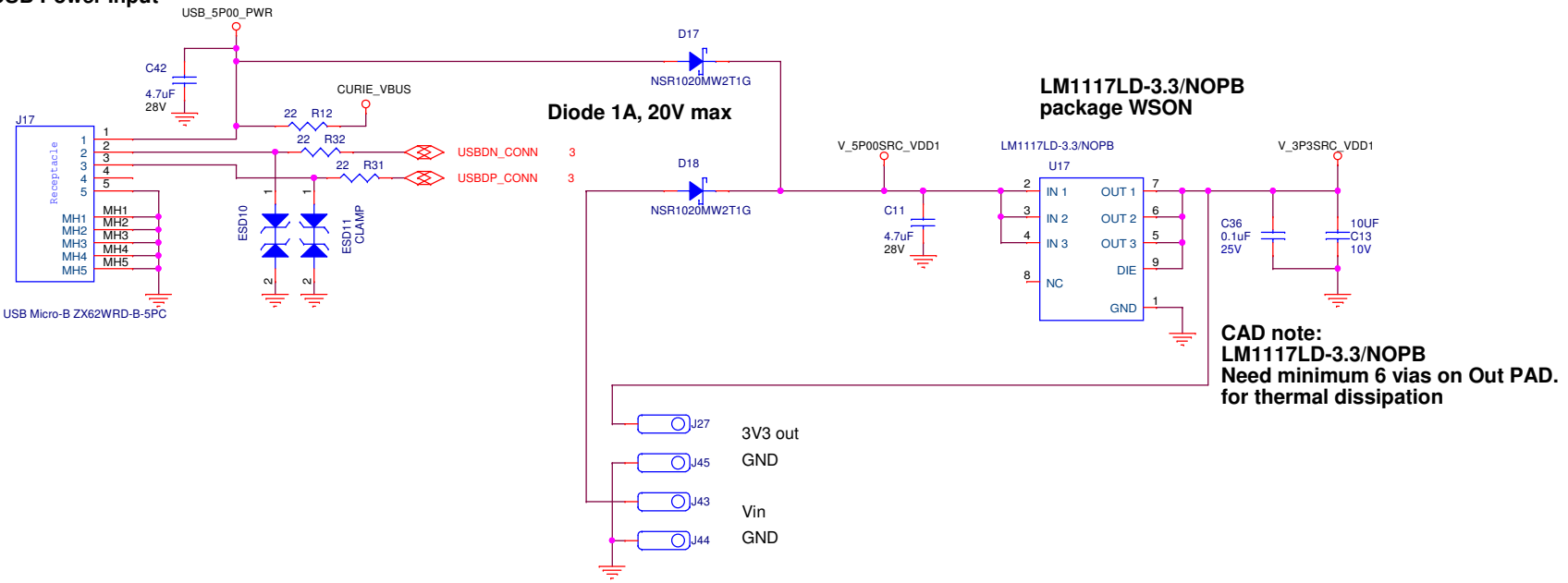
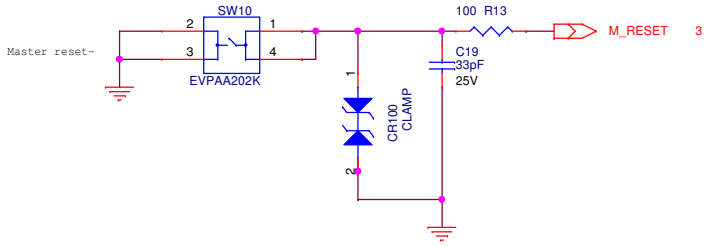
USB Power Input





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Power and reset

U12D
ATP_TRST_B K23 — DBG_AP_JTAG_TRST_N 3
ATP_TDO M23 — DBG_AP_JTAG_TDO 3
ATP_TDI M21 — DBG_AP_JTAG_TDI 3
ATP_TMS L24 — DBG_AP_JTAG_TMS 3
ATP_TCK L23 — DBG_AP_JTAG_TCK 3
VDD_PLAT_3P3
R30 10K
MRESET_B D23 — M_RESET 2
ATP_RST_B B4
POR_B E23
PLT_CLK_0 E3 — MISO1/IO9_3V_IO8 3,4
CURIE_V3

U12C
CURIE_VBUS
VDD_USB K4
0R R59 USB DIFF SIGNALS
USB_DM J23 — USBDN_CONN 2,3
USB_DP J24 — USBDP_CONN 2,3
VIN_1 K24
VIN_2 N21
C17 4.7uF 28V
BATT_TEMP N22
SW_FG_VBATT P21
VSYS
PV_BATT
PV_BATT M1
CHG_STATUS M22
BATT_ISET L22
VSYS L4
AVD_OPM_2P6 J1
C25 4.7uF C26 0.1uF C23 10UF 10V C24 0.1uF
AGND L21
GND1 P1
GND2 A2
GND3 P22
GND4 C23
GND5 G24
GND6 G21
GND7 A24
GND8 P24
R24 NP
CURIE_V3

U12A
VSYS
3V Buck not used
ESR1_VBATT P2
VDD_PLAT_3P3 N2
ESR1_LX N1
C45 0.1uF C31 4.7uF C32 0.1uF
VDD_PLAT_1P8
ESR2_VBATT N4
VDD_PLAT_1P8 M2
1.8V Buck not used
ESR2_LX M4
C33 4.7uF C28 0.1uF
LDO1P8_VOUT L1
BUCK_VOUT K1
VDD_HOST_1P8 P3
V_1P8_ESR3
ESR3_LX P4
2 22uH 1 L12
CURIE_V3
C35 0.1uF C48 0.1uF C29 4.7uF C30 0.1uF

I/O

U12B
VDD_PLAT_3P3
COMP_AREF G22
AON_IO_VCC E21
ADC_3P3_VCC H23
CMP_3P3_VCC H22
BUCK_VSEL K2
22 R35
C20 10UF C21 10UF C22 0.1uF
GPIO/AIN_10 J2 — AD10/SS2_3V_AD0 4
GPIO/AIN_11 H21 — AD11/SS3_3V_AD1 4
GPIO/AIN_12 H2 — AD12/SS4_3V_AD2 4
GPIO/AIN_13 L2 — AD13/SS5_3V_AD3 4
GPIO/AIN_14 C24 — AD14/SS6_3V_AD4 4
UART1_RTS/AN09 K21 — AD09/SS1_3V_AD5 4
PWM0_OUT H1 — PWM0/SS10_3V_IO3 3,4
PWM1_OUT G2 — PWM1/SS11_3V_IO5 3,4
PWM2_OUT G1 — PWM2/SS12_3V_IO6 4
PWM3_OUT F2 — PWM3/SS13_3V_IO9 4
VDD_BLE_SEN H24
BLE_DEC2 G23
BLE_RF F24
BLE_SDA B23
BLE_SCL F23
BLE_SWDIO E24 — NOR_SWD_SDA 3
BLE_SW_CLK D24 — NOR_SWD_SCL 3
BT_GPIO B24
CURIE_V3

U12F
I2C0_SS_SCL N24 — SCL0_SS_3V_AD5 4
I2C0_SS_SDA N23 — SDA0_SS_3V_AD4 4
I2C1_SS_SCL F1
I2C1_SS_SDA E2
I2C0_SCL M24
I2C0_SDA P23
I2C1_SCL E1
I2C1_SDA D2
ATP_SPI_S_MOSI F4 — ATPMOSI/IO3_3V_IO11 3,4
ATP_SPI_S_MISO G3 — ATPMISO/IO1_3V_IO12 3,4
ATP_SPI_S_SCK E4 — ATPSCK/IO2_3V_IO13 3,4
ATP_SPI_S_CS F3 — ATPSS/IO0_3V_IO10 3,4
UART1_TX J21 — TXD1/SS8_3V_IO1 4
UART1_RX K22 — RXD1/SS9_3V_IO0 4
UART1_CTS J22 — ATPCTS/IO9_3V_IO14
6AXIS_SDA A21
6AXIS_SCL A22
6AXIS_INT2 A23
I2S_RXD A3 — PWM1/SS11_3V_IO5 3,4
I2S_RSCK B2 — MISO1/IO9_3V_IO8 3,4
I2S_RWS B1 — PWM0/SS10_3V_IO3 3,4
I2S_TSCK C2 — I2S_TSCK/IO18_3V_IO2 4
I2S_TWS C1 — I2S_TWS/IO19_3V_IO4 4
I2S_TXD D1 — I2S_TXD/IO20_3V_IO7 4
CURIE_V3

U12E
SPI0_M_MOSI D3 — SP0_MOSI_MEM 4
SPI0_M_MISO D4 — SP0_MISO_MEM 4
SPI0_M_SCK C4 — SP0_CLK_MEM 4
SPI0_M_CS0 B3 — SP0_CS0_MEM 4
SPI0_M_CS1 A4 — SP0_WP_MEM~ 4
SPI0_M_CS2 C3 — RXLED
SPI1_M_MOSI E22 — ATPMOSI/IO3_3V_IO11 3,4
SPI1_M_MISO B22 — ATPMISO/IO1_3V_IO12 3,4
SPI1_M_SCK C21 — ATPSCK/IO2_3V_IO13 3,4
SPI1_M_CS0 D22 — ATPSS/IO0_3V_IO10 3,4
SPI1_M_CS1 D21 — TXLED
SPI1_M_CS2 B21
SPI1_M_CS3 C22
SPI0_SS_MOSI M3
SPI0_SS_MISO J3
SPI0_SS_SCK J4
SPI0_SS_CS0 H4
SPI0_SS_CS1 H3
SPI0_SS_CS2 K3
SPI0_SS_CS3 G4
ATP_INT0 F22 — RST_SKETCH_3V
ATP_INT1 N3
ATP_INT2 L3
ATP_INT3 F21
CURIE_V3

BLE ANTENNA

CAD Note:
BlueTooth area
Following the layout
H94932-002 _CURIE_ORB_BUTTON_V2P0_D

W3008C - 2400-2483.5MHz Antenna
ANT500
2 GND1
3 GND2
FEED 1 R_RF_ANT R502 5% 0
R501 0 5%
R503 0 5% NO_STUFF

NOTE:
Need to add R503 in PCB.

V_3P3SRC_VDD1
VDD_PLAT_3P3
0R R58 A93592-004
VSYS
0R R63 A93592-004

Test Points

3 NOR_SWD_SDA — TPB10 — BLE_SDA
3 NOR_SWD_SCL — TPB11 — BLE_SCL

Test JTAG

3 DBG_AP_JTAG_TMS — TPB12 — TMS
3 DBG_AP_JTAG_TCK — TPB13 — TCK
3 DBG_AP_JTAG_TDO — TPB14 — TDO
3 DBG_AP_JTAG_TDI — TPB15 — TDI
3 DBG_AP_JTAG_TRST_N — TPB16 — TRST_N
2,3 USBDN_CONN — TPB17 — USBD_N
2,3 USBDP_CONN — TPB18 — USBD_P
USB_5P00_PWR
TPB19 — 5V
VDD_PLAT_3P3
TPB21 — 3V3
TPB22 — GND
TPB23

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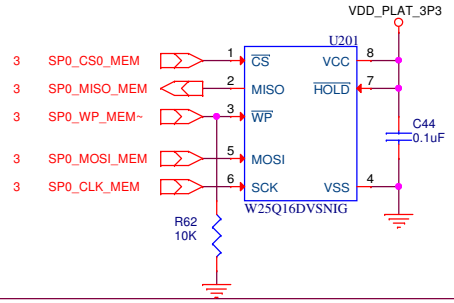
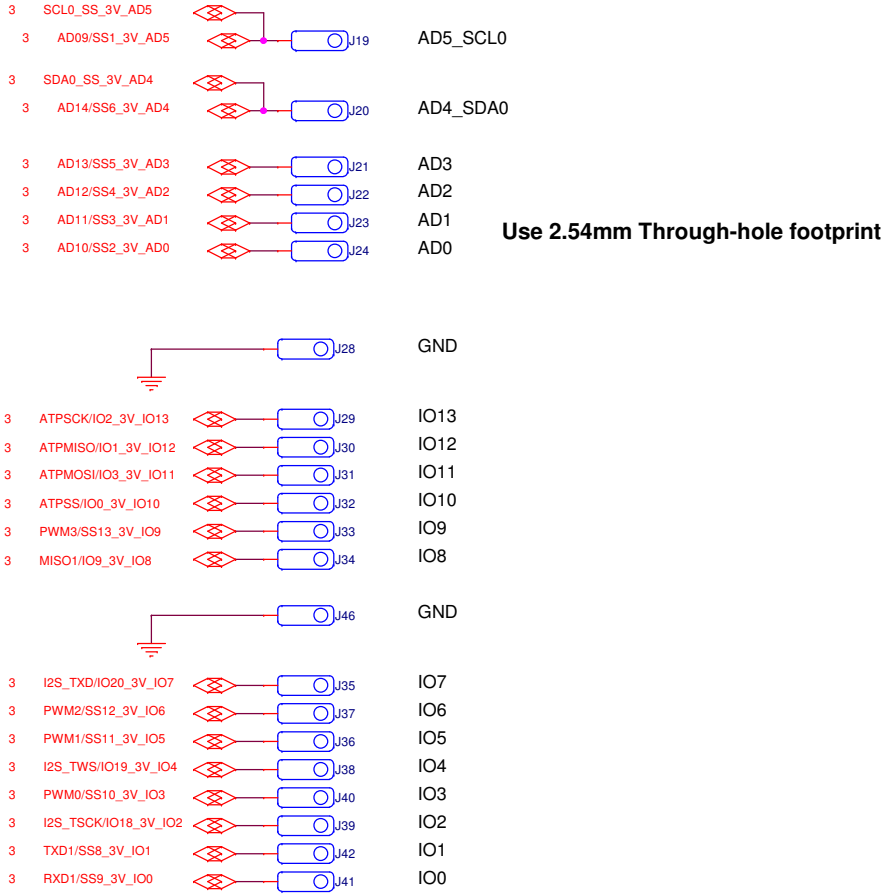
W25Q16DVSNIG
SOIC-8 150mil





Use 2.54mm Through-hole footprint

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