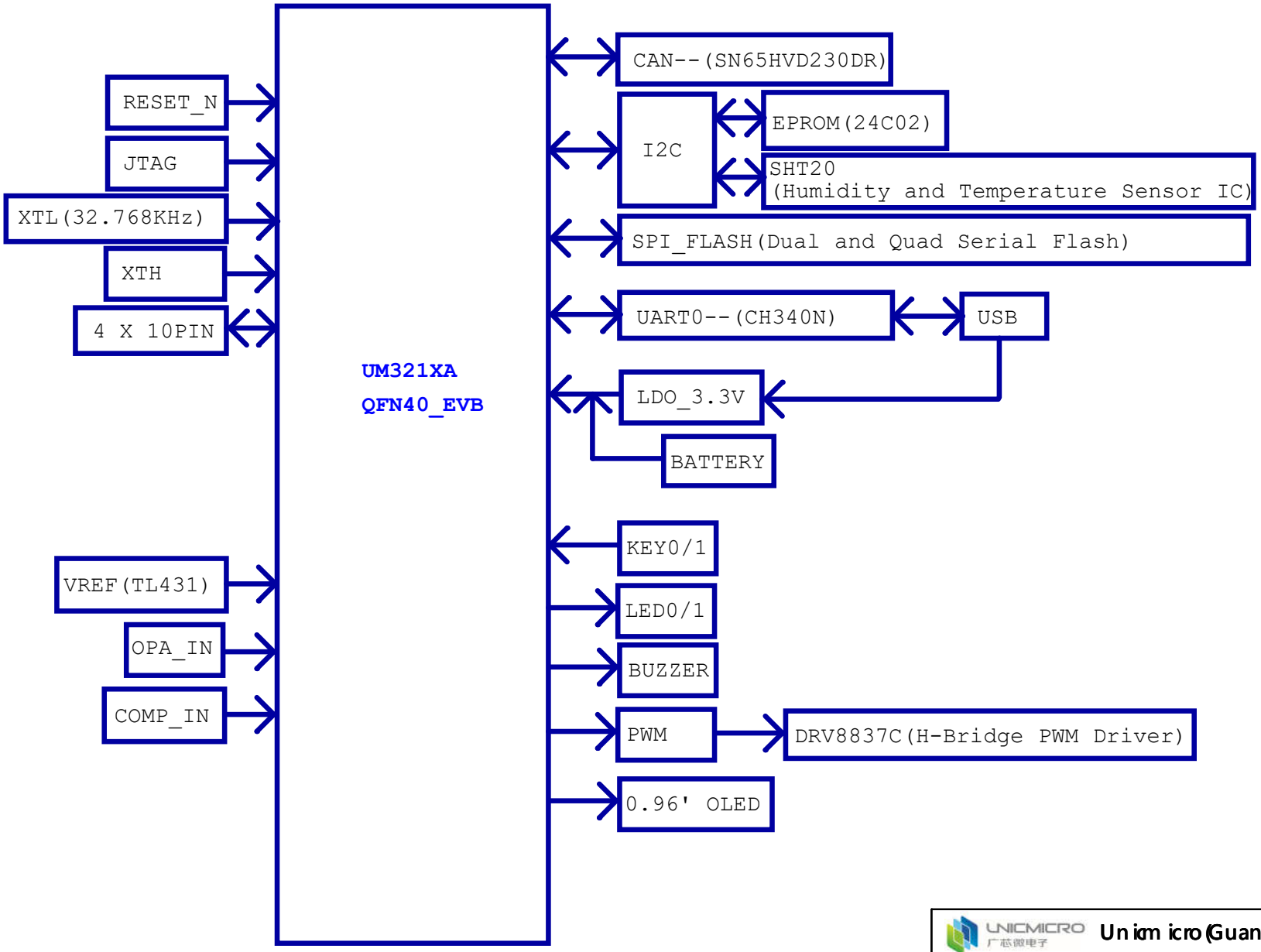
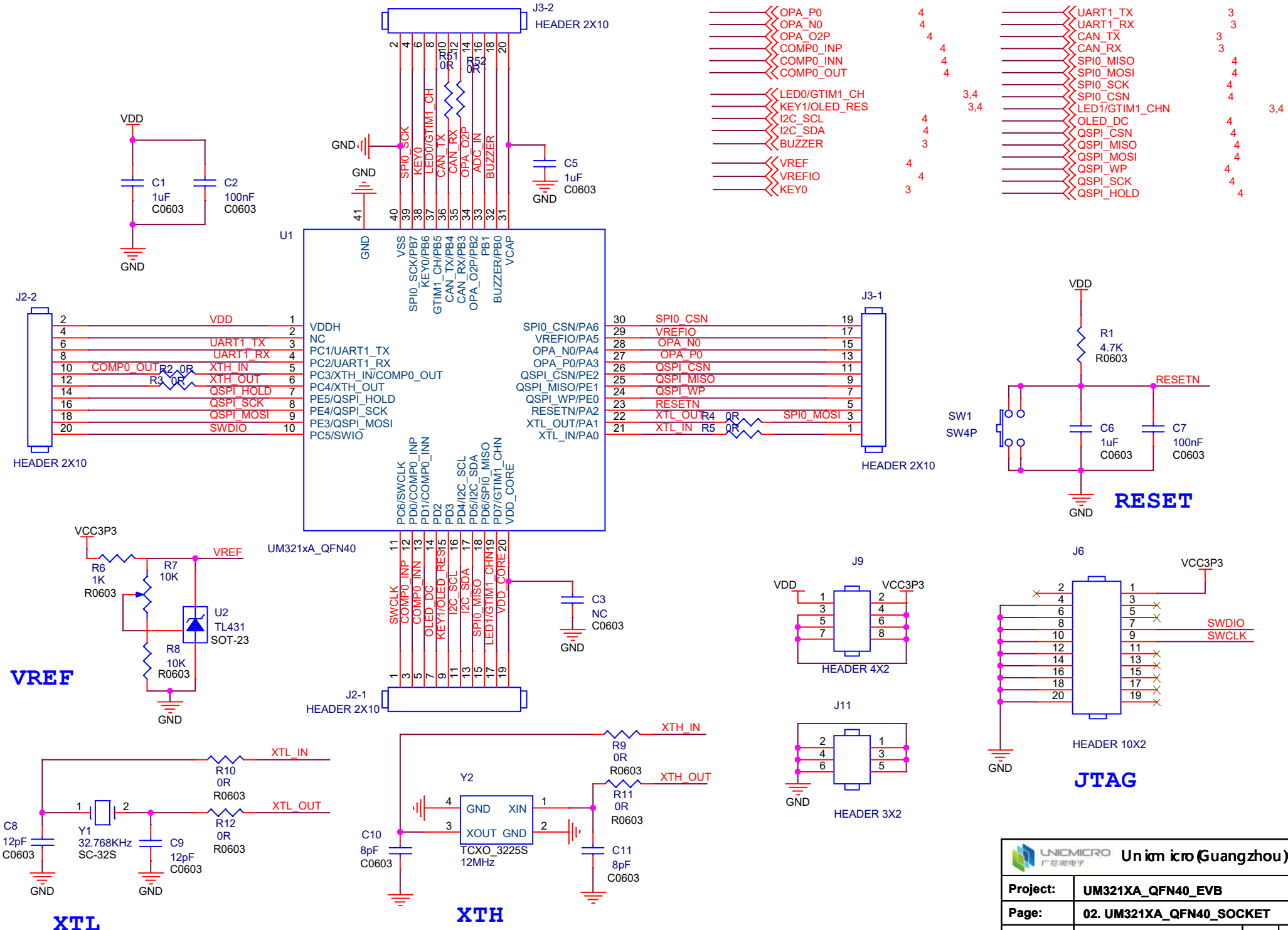
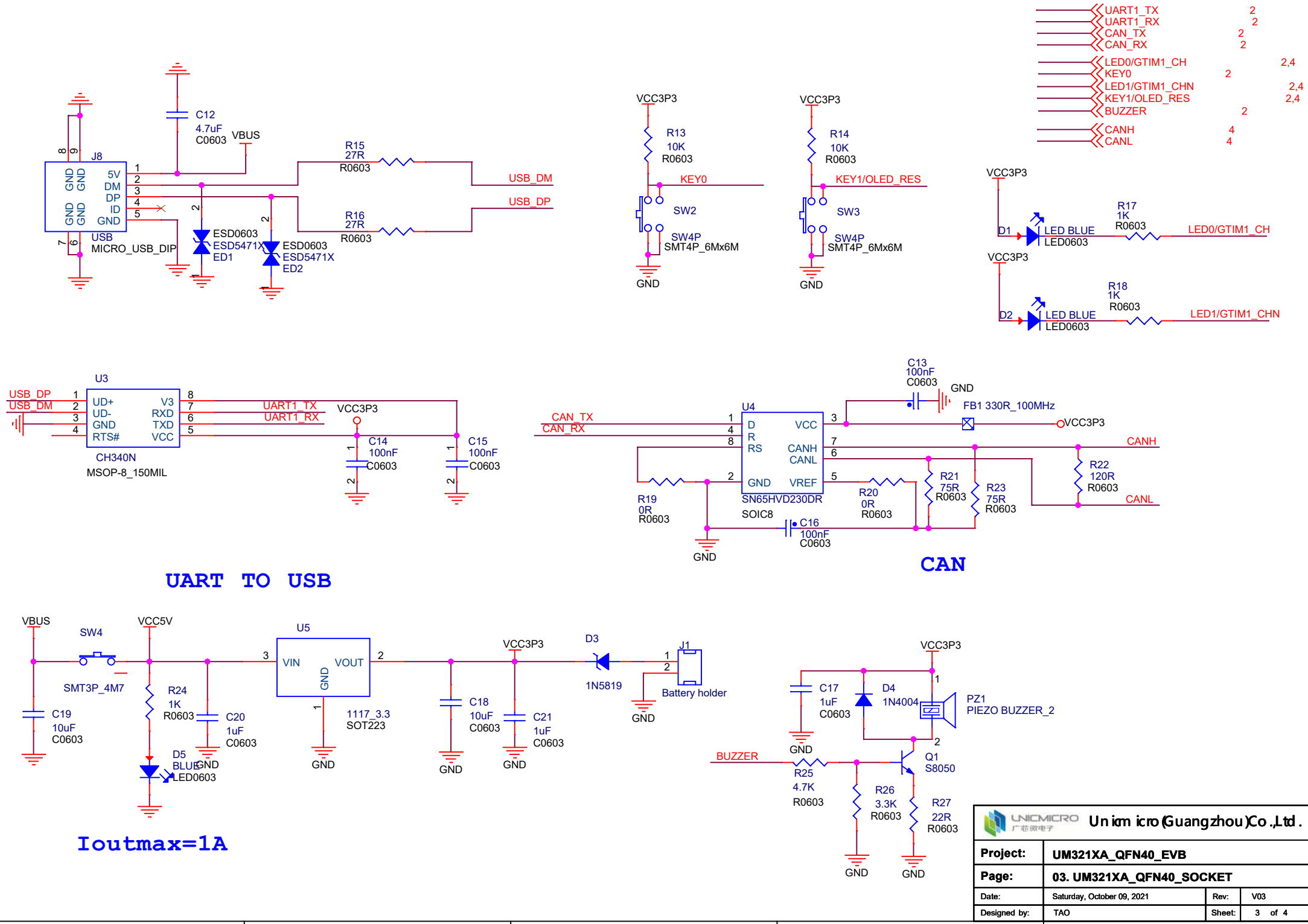
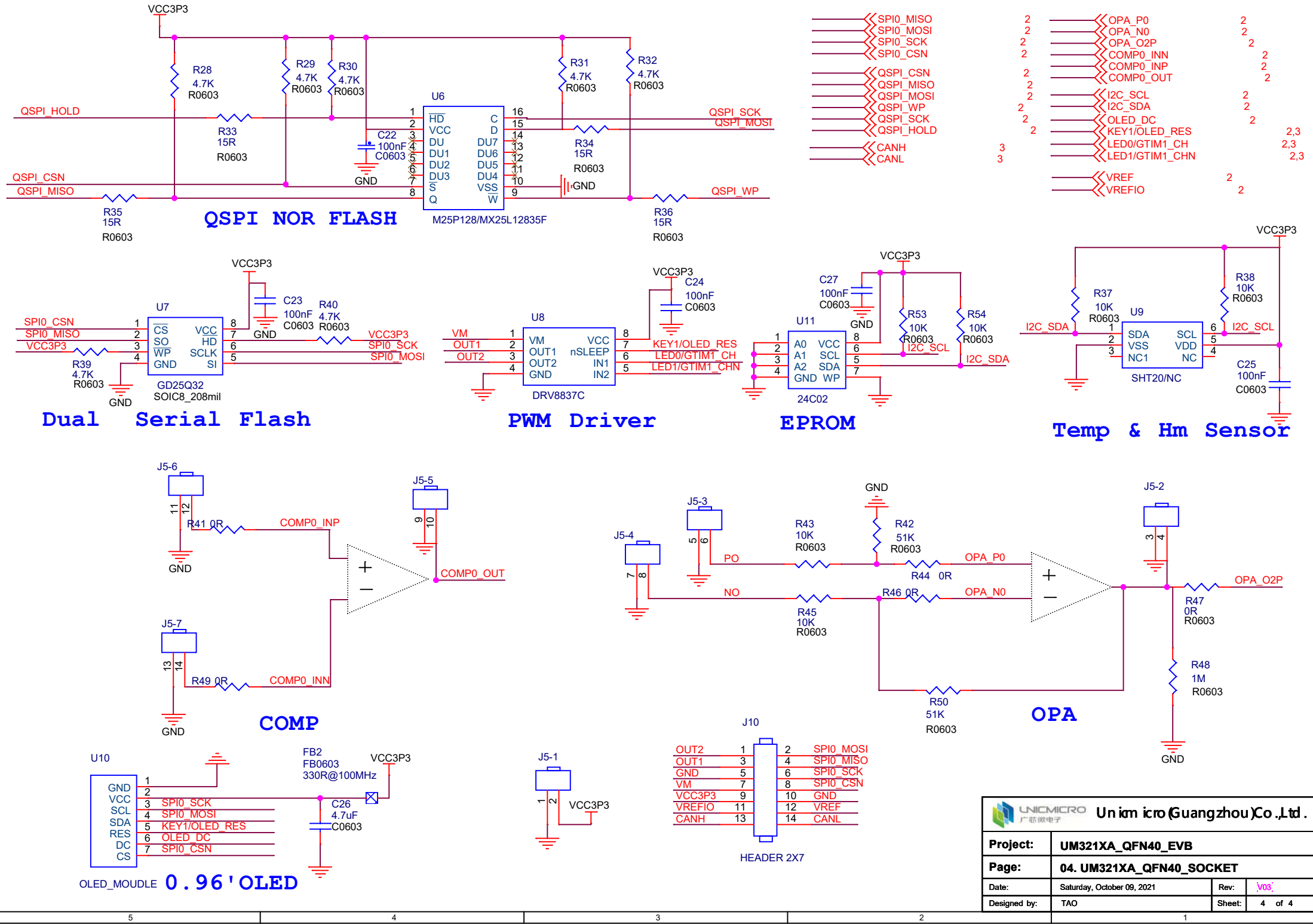


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J3-2
HEADER 2X10
R51 0R
R52 0R
C5 1uF C0603
VDD
C1 1uF C0603
C2 100nF C0603
GND
U1
UM321xA_QFN40
VDDH
NC
PC1/UART1_TX
PC2/UART1_RX
PC3/XTH_IN/COMP0_OUT
PC4/XTH_OUT
PE5/QSPI_HOLD
PE4/QSPI_SCK
PE3/QSPI_MOSI
PC5/SWIO
SPI0_CSN/PA6
VREFIO/PA5
OPA_N0/PA4
OPA_P0/PA3
QSPI_CSN/PE2
QSPI_MISO/PE1
QSPI_WP/PE0
RESETN/PA2
XTL_OUT/PA1
XTL_IN/PA0
J2-2
HEADER 2X10
J3-1
HEADER 2X10
R2 0R
R3 0R
R4 0R
R5 0R
J2-1
HEADER 2X10
C3 NC C0603
OPA_P0 4
OPA_N0 4
OPA_O2P 4
COMP0_INP 4
COMP0_INN 4
COMP0_OUT 4
LED0/GTIM1_CH 3,4
KEY1/OLED_RES 3,4
I2C_SCL 4
I2C_SDA 4
BUZZER 3
VREF 4
VREFIO 4
KEY0 3
UART1_TX 3
UART1_RX 3
CAN_TX 3
CAN_RX 3
SPI0_MISO 4
SPI0_MOSI 4
SPI0_SCK 4
SPI0_CSN 4
LED1/GTIM1_CHN 3,4
OLED_DC 4
QSPI_CSN 4
QSPI_MISO 4
QSPI_MOSI 4
QSPI_WP 4
QSPI_SCK 4
QSPI_HOLD 4
VDD
R1 4.7K R0603
RESETN
SW1
SW4P
C6 1uF C0603
C7 100nF C0603
GND
RESET
VCC3P3
R6 1K R0603
R7 10K
R8 10K R0603
VREF
U2 TL431 SOT-23
VREF
J9
HEADER 4X2
J11
HEADER 3X2
J6
HEADER 10X2
SWDIO
SWCLK
JTAG
XTL_IN
XTL_OUT
R10 0R R0603
R12 0R R0603
C8 12pF C0603
Y1 32.768KHz SC-32S
C9 12pF C0603
XTL
XTH_IN
XTH_OUT
R9 0R R0603
R11 0R R0603
Y2
TCXO_3225S 12MHz
C10 8pF C0603
C11 8pF C0603
XTH
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UART1_TX 2
UART1_RX 2
CAN_TX 2
CAN_RX 2
LED0/GTIM1_CH 2,4
KEY0 2
LED1/GTIM1_CHN 2,4
KEY1/OLED_RES 2,4
BUZZER 2
CANH 4
CANL 4
J8
USB
MICRO_USB_DIP
C12
4.7uF
C0603
VBUS
R15
27R
R0603
R16
27R
R0603
USB_DM
USB_DP
ESD0603
ESD5471X
ED1
ESD0603
ESD5471X
ED2
VCC3P3
R13
10K
R0603
KEY0
SW2
SW4P
SMT4P_6Mx6M
GND
VCC3P3
R14
10K
R0603
KEY1/OLED_RES
SW3
SW4P
SMT4P_6Mx6M
GND
VCC3P3
D1
LED BLUE
LED0603
R17
1K
R0603
LED0/GTIM1_CH
VCC3P3
D2
LED BLUE
LED0603
R18
1K
R0603
LED1/GTIM1_CHN
U3
USB_DP
USB_DM
UD+
UD-
GND
RTS#
V3
RXD
TXD
VCC
UART1_TX
UART1_RX
CH340N
MSOP-8_150MIL
VCC3P3
C14
100nF
C0603
C15
100nF
C0603
UART TO USB
C13
100nF
C0603
GND
FB1 330R_100MHz
VCC3P3
U4
CAN_TX
CAN_RX
D
R
RS
VCC
CANH
CANL
GND
VREF
SN65HVD230DR
SOIC8
R19
0R
R0603
R20
0R
R0603
R21
75R
R0603
R23
75R
R0603
R22
120R
R0603
CANH
CANL
C16
100nF
C0603
GND
CAN
VBUS
SW4
SMT3P_4M7
VCC5V
C19
10uF
C0603
R24
1K
R0603
C20
1uF
C0603
D5
BLUE
LED0603
GND
U5
VIN
GND
VOUT
1117_3.3
SOT223
GND
VCC3P3
C18
10uF
C0603
C21
1uF
C0603
GND
GND
D3
1N5819
J1
Battery holder
GND
Ioutmax=1A
VCC3P3
C17
1uF
C0603
D4
1N4004
PZ1
PIEZO BUZZER_2
GND
BUZZER
R25
4.7K
R0603
Q1
S8050
R26
3.3K
R0603
R27
22R
R0603
GND
GND
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VCC3P3
R28 4.7K R0603
R29 4.7K R0603
R30 4.7K R0603
R31 4.7K R0603
R32 4.7K R0603
QSPI_HOLD
R33 15R R0603
C22 100nF C0603
GND
U6
HD VCC DU DU1 DU2 DU3 S Q
C D DU7 DU6 DU5 DU4 VSS W
R34 15R R0603
QSPI_SCK
QSPI_MOSI
QSPI_WP
QSPI_CSN
QSPI_MISO
R35 15R R0603
R36 15R R0603
M25P128/MX25L12835F
QSPI NOR FLASH
SPI0_MISO 2
SPI0_MOSI 2
SPI0_SCK 2
SPI0_CSN 2
QSPI_CSN 2
QSPI_MISO 2
QSPI_MOSI 2
QSPI_WP 2
QSPI_SCK 2
QSPI_HOLD 2
CANH 3
CANL 3
OPA_P0 2
OPA_N0 2
OPA_O2P 2
COMP0_INN 2
COMP0_INP 2
COMP0_OUT 2
I2C_SCL 2
I2C_SDA 2
OLED_DC 2
KEY1/OLED_RES 2,3
LED0/GTIM1_CH 2,3
LED1/GTIM1_CHN 2,3
VREF 2
VREFIO 2
U7
SPI0_CSN
SPI0_MISO
VCC3P3
R39 4.7K R0603
GND
CS SO WP GND VCC HD SCLK SI
C23 100nF C0603
R40 4.7K R0603
VCC3P3
SPI0_SCK
SPI0_MOSI
GD25Q32
SOIC8_208mil
Dual Serial Flash
U8
VM OUT1 OUT2 GND VCC nSLEEP IN1 IN2
C24 100nF C0603
KEY1/OLED_RES
LED0/GTIM1_CH
LED1/GTIM1_CHN
DRV8837C
PWM Driver
U11
A0 A1 A2 GND VCC SCL SDA WP
C27 100nF C0603
R53 10K R0603
R54 10K R0603
I2C_SCL
I2C_SDA
24C02
EPROM
U9
SDA VSS NC1 SCL VDD NC
R37 10K R0603
R38 10K R0603
SHT20/NC
C25 100nF C0603
Temp & Hm Sensor
J5-6
R41 0R
COMP0_INP
J5-5
COMP0_OUT
J5-7
R49 0R
COMP0_INN
COMP
J5-3
J5-4
PO
NO
R43 10K R0603
R42 51K R0603
R44 0R
R46 0R
R45 10K R0603
OPA_P0
OPA_N0
J5-2
OPA_O2P
R47 0R R0603
R48 1M R0603
R50 51K R0603
OPA
U10
GND VCC SCL SDA RES DC CS
SPI0_SCK
SPI0_MOSI
KEY1/OLED_RES
OLED_DC
SPI0_CSN
FB2 FB0603 330R@100MHz
C26 4.7uF C0603
OLED_MOUDLE 0.96'OLED
J5-1
J10
OUT2 OUT1 GND VM VCC3P3 VREFIO CANH
SPI0_MOSI SPI0_MISO SPI0_SCK SPI0_CSN GND VREF CANL
HEADER 2X7
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