野火_EP4CE10_Pro_原理图

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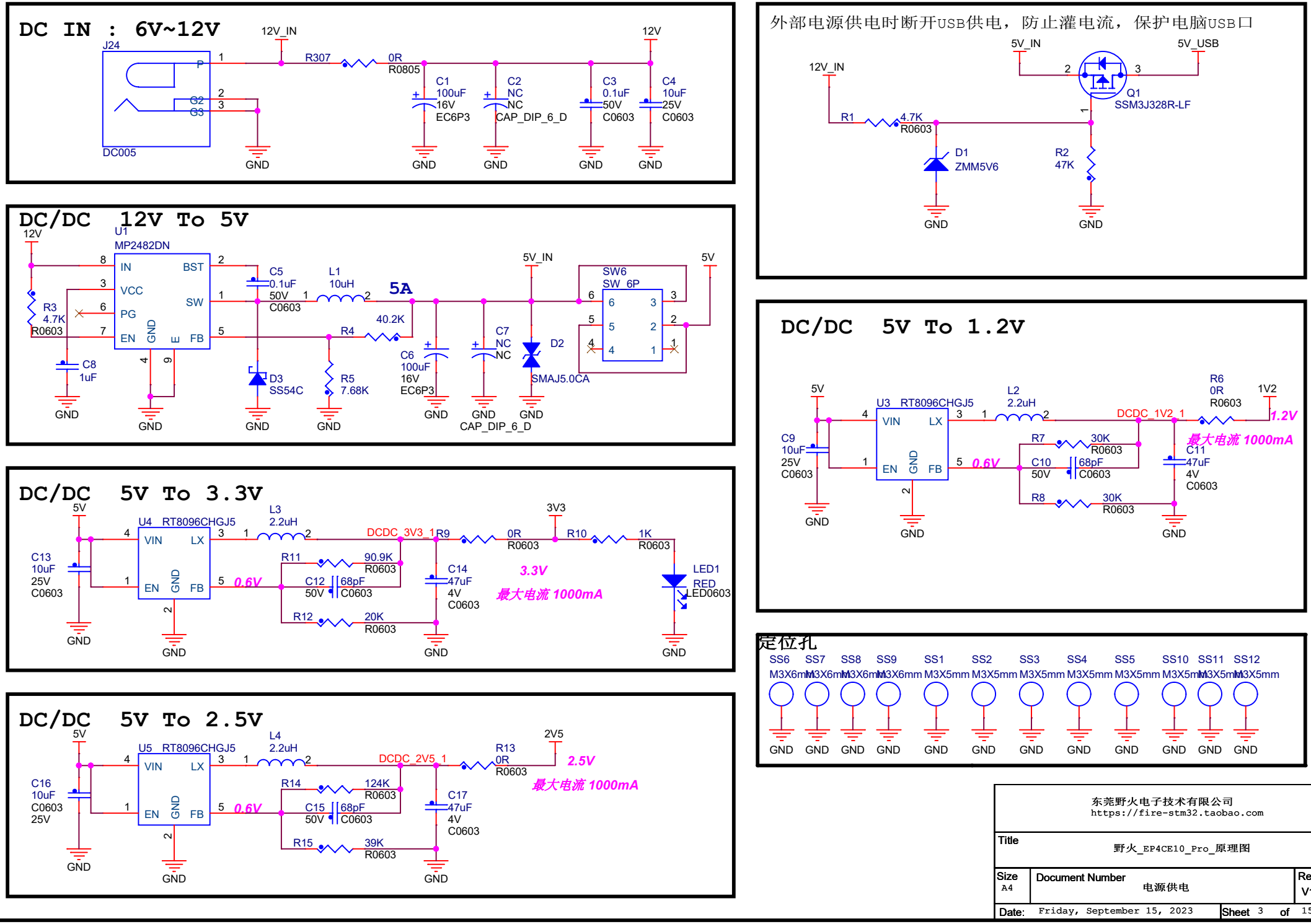
历史版本

版本号	日期	设计	描述
V0.1	2019-11-21	cancore	初始版本
V0.2	2019-11-27	cancore	调整SDRAM的时钟输出引脚，HDMI的差分添加电容隔离直流
V0.3	2019-12-22	cancore	修改nCE引脚连接，EEPROM地址更改，按键连接更改
V0.3	2020-05-19	cancore	整理对外发布，稳定版


DC IN : 6V~12V
J24
DC005
12V_IN
R307
0R
R0805
C1
100uF
16V
EC6P3
C2
NC
NC
CAP_DIP_6_D
C3
0.1uF
50V
C0603
C4
10uF
25V
C0603
12V
GND
外部电源供电时断开USB供电，防止灌电流，保护电脑USB口
5V_IN
5V_USB
Q1
SSM3J328R-LF
R1
4.7K
R0603
D1
ZMM5V6
R2
47K
DC/DC 12V To 5V
U1
MP2482DN
IN
BST
VCC
SW
PG
EN
GND
FB
R3
4.7K
R0603
C8
1uF
C5
0.1uF
50V
C0603
L1
10uH
5A
R4
40.2K
R5
7.68K
D3
SS54C
C6
100uF
16V
EC6P3
C7
NC
NC
D2
SMAJ5.0CA
SW6
SW_6P
5V
DC/DC 5V To 1.2V
U3 RT8096CHGJ5
L2
2.2uH
R6
0R
R0603
1V2
DCDC_1V2_1
1.2V
最大电流 1000mA
C9
10uF
25V
C0603
R7
30K
R0603
C10
50V
68pF
C0603
C11
47uF
4V
C0603
R8
30K
R0603
0.6V
DC/DC 5V To 3.3V
U4 RT8096CHGJ5
L3
2.2uH
DCDC_3V3_1
R9
0R
R0603
3V3
R10
1K
R0603
LED1
RED
LED0603
C13
10uF
25V
C0603
R11
90.9K
R0603
C12
50V
68pF
C0603
R12
20K
R0603
C14
47uF
4V
C0603
3.3V
最大电流 1000mA
0.6V
DC/DC 5V To 2.5V
U5 RT8096CHGJ5
L4
2.2uH
DCDC_2V5_1
R13
0R
R0603
2V5
2.5V
最大电流 1000mA
C16
10uF
C0603
25V
R14
124K
R0603
C15
50V
68pF
C0603
R15
39K
R0603
C17
47uF
4V
C0603
0.6V
定位孔
SS6
SS7
SS8
SS9
SS1
SS2
SS3
SS4
SS5
SS10
SS11
SS12
M3X6mm
M3X5mm
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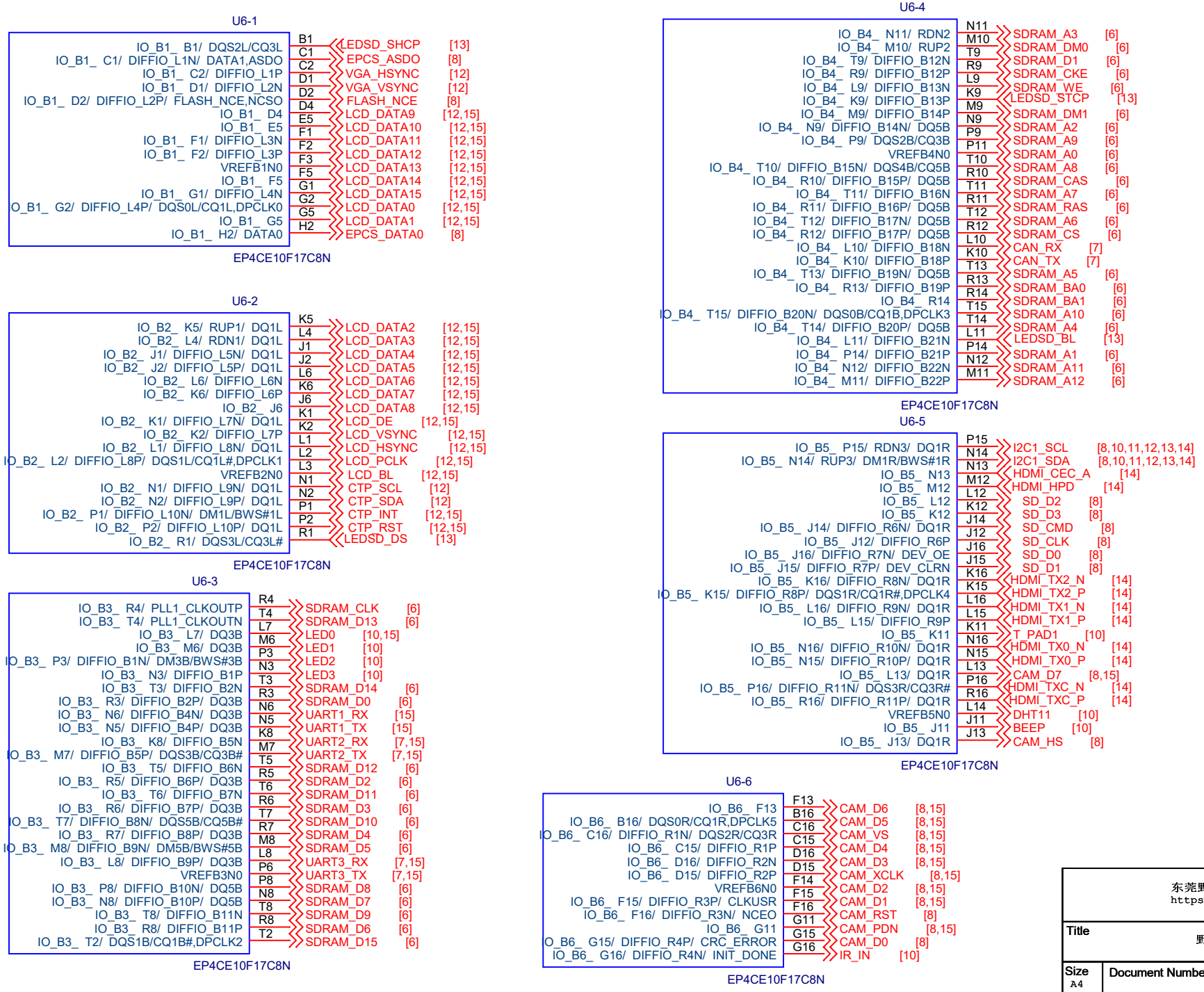
U6-1
IO_B1_ B1/ DQS2L/CQ3L B1 LEDSD_SHCP [13]
IO_B1_ C1/ DIFFIO_L1N/ DATA1,ASDO C1 EPCS_ASDO [8]
IO_B1_ C2/ DIFFIO_L1P C2 VGA_HSYNC [12]
IO_B1_ D1/ DIFFIO_L2N D1 VGA_VSYNC [12]
IO_B1_ D2/ DIFFIO_L2P/ FLASH_NCE,NCSO D2 FLASH_NCE [8]
IO_B1_ D4 D4 LCD_DATA9 [12,15]
IO_B1_ E5 E5 LCD_DATA10 [12,15]
IO_B1_ F1/ DIFFIO_L3N F1 LCD_DATA11 [12,15]
IO_B1_ F2/ DIFFIO_L3P F2 LCD_DATA12 [12,15]
VREFB1N0 F3 LCD_DATA13 [12,15]
IO_B1_ F5 F5 LCD_DATA14 [12,15]
IO_B1_ G1/ DIFFIO_L4N G1 LCD_DATA15 [12,15]
IO_B1_ G2/ DIFFIO_L4P/ DQS0L/CQ1L,DPCLK0 G2 LCD_DATA0 [12,15]
IO_B1_ G5 G5 LCD_DATA1 [12,15]
IO_B1_ H2/ DATA0 H2 EPCS_DATA0 [8]
EP4CE10F17C8N
U6-2
IO_B2_ K5/ RUP1/ DQ1L K5
IO_B2_ L4/ RDN1/ DQ1L L4 LCD_DATA2 [12,15]
IO_B2_ J1/ DIFFIO_L5N/ DQ1L J1 LCD_DATA3 [12,15]
IO_B2_ J2/ DIFFIO_L5P/ DQ1L J2 LCD_DATA4 [12,15]
IO_B2_ L6/ DIFFIO_L6N L6 LCD_DATA5 [12,15]
IO_B2_ K6/ DIFFIO_L6P K6 LCD_DATA6 [12,15]
IO_B2_ J6 J6 LCD_DATA7 [12,15]
IO_B2_ K1/ DIFFIO_L7N/ DQ1L K1 LCD_DATA8 [12,15]
IO_B2_ K2/ DIFFIO_L7P K2 LCD_DE [12,15]
IO_B2_ L1/ DIFFIO_L8N/ DQ1L L1 LCD_VSYNC [12,15]
IO_B2_ L2/ DIFFIO_L8P/ DQS1L/CQ1L#,DPCLK1 L2 LCD_HSYNC [12,15]
VREFB2N0 L3 LCD_PCLK [12,15]
IO_B2_ N1/ DIFFIO_L9N/ DQ1L N1 LCD_BL [12,15]
IO_B2_ N2/ DIFFIO_L9P/ DQ1L N2 CTP_SCL [12]
IO_B2_ P1/ DIFFIO_L10N/ DM1L/BWS#1L P1 CTP_SDA [12]
IO_B2_ P2/ DIFFIO_L10P/ DQ1L P2 CTP_INT [12,15]
IO_B2_ R1/ DQS3L/CQ3L# R1 CTP_RST [12,15]
LEDSD_DS [13]
EP4CE10F17C8N
U6-3
IO_B3_ R4/ PLL1_CLKOUTP R4
IO_B3_ T4/ PLL1_CLKOUTN T4 SDRAM_CLK [6]
IO_B3_ L7/ DQ3B L7 SDRAM_D13 [6]
IO_B3_ M6/ DQ3B M6 LED0 [10,15]
IO_B3_ P3/ DIFFIO_B1N/ DM3B/BWS#3B P3 LED1 [10]
IO_B3_ N3/ DIFFIO_B1P N3 LED2 [10]
IO_B3_ T3/ DIFFIO_B2N T3 LED3 [10]
IO_B3_ R3/ DIFFIO_B2P/ DQ3B R3 SDRAM_D14 [6]
IO_B3_ N6/ DIFFIO_B4N/ DQ3B N6 SDRAM_D0 [6]
IO_B3_ N5/ DIFFIO_B4P/ DQ3B N5 UART1_RX [15]
IO_B3_ K8/ DIFFIO_B5N K8 UART1_TX [15]
IO_B3_ M7/ DIFFIO_B5P/ DQS3B/CQ3B# M7 UART2_RX [7,15]
IO_B3_ T5/ DIFFIO_B6N T5 UART2_TX [7,15]
IO_B3_ R5/ DIFFIO_B6P/ DQ3B R5 SDRAM_D12 [6]
IO_B3_ T6/ DIFFIO_B7N T6 SDRAM_D2 [6]
IO_B3_ R6/ DIFFIO_B7P/ DQ3B R6 SDRAM_D11 [6]
IO_B3_ T7/ DIFFIO_B8N/ DQS5B/CQ5B# T7 SDRAM_D3 [6]
IO_B3_ R7/ DIFFIO_B8P/ DQ3B R7 SDRAM_D10 [6]
IO_B3_ M8/ DIFFIO_B9N/ DM5B/BWS#5B M8 SDRAM_D4 [6]
IO_B3_ L8/ DIFFIO_B9P/ DQ3B L8 SDRAM_D5 [6]
VREFB3N0 P6 UART3_RX [7,15]
IO_B3_ P8/ DIFFIO_B10N/ DQ5B P8 UART3_TX [7,15]
IO_B3_ N8/ DIFFIO_B10P/ DQ5B N8 SDRAM_D8 [6]
IO_B3_ T8/ DIFFIO_B11N T8 SDRAM_D7 [6]
IO_B3_ R8/ DIFFIO_B11P R8 SDRAM_D9 [6]
IO_B3_ T2/ DQS1B/CQ1B#,DPCLK2 T2 SDRAM_D6 [6]
SDRAM_D15 [6]
EP4CE10F17C8N
U6-4
IO_B4_ N11/ RDN2 N11 SDRAM_A3 [6]
IO_B4_ M10/ RUP2 M10 SDRAM_DM0 [6]
IO_B4_ T9/ DIFFIO_B12N T9 SDRAM_D1 [6]
IO_B4_ R9/ DIFFIO_B12P R9 SDRAM_CKE [6]
IO_B4_ L9/ DIFFIO_B13N L9 SDRAM_WE [6]
IO_B4_ K9/ DIFFIO_B13P K9 LEDSD_STCP [13]
IO_B4_ M9/ DIFFIO_B14P M9 SDRAM_DM1 [6]
IO_B4_ N9/ DIFFIO_B14N/ DQ5B N9 SDRAM_A2 [6]
IO_B4_ P9/ DQS2B/CQ3B P9 SDRAM_A9 [6]
VREFB4N0 P11 SDRAM_A0 [6]
IO_B4_ T10/ DIFFIO_B15N/ DQS4B/CQ5B T10 SDRAM_A8 [6]
IO_B4_ R10/ DIFFIO_B15P/ DQ5B R10 SDRAM_CAS [6]
IO_B4_ T11/ DIFFIO_B16N T11 SDRAM_A7 [6]
IO_B4_ R11/ DIFFIO_B16P/ DQ5B R11 SDRAM_RAS [6]
IO_B4_ T12/ DIFFIO_B17N/ DQ5B T12 SDRAM_A6 [6]
IO_B4_ R12/ DIFFIO_B17P/ DQ5B R12 SDRAM_CS [6]
IO_B4_ L10/ DIFFIO_B18N L10 CAN_RX [7]
IO_B4_ K10/ DIFFIO_B18P K10 CAN_TX [7]
IO_B4_ T13/ DIFFIO_B19N/ DQ5B T13 SDRAM_A5 [6]
IO_B4_ R13/ DIFFIO_B19P R13 SDRAM_BA0 [6]
IO_B4_ R14 R14 SDRAM_BA1 [6]
IO_B4_ T15/ DIFFIO_B20N/ DQS0B/CQ1B,DPCLK3 T15 SDRAM_A10 [6]
IO_B4_ T14/ DIFFIO_B20P/ DQ5B T14 SDRAM_A4 [6]
IO_B4_ L11/ DIFFIO_B21N L11 LEDSD_BL [13]
IO_B4_ P14/ DIFFIO_B21P P14 SDRAM_A1 [6]
IO_B4_ N12/ DIFFIO_B22N N12 SDRAM_A11 [6]
IO_B4_ M11/ DIFFIO_B22P M11 SDRAM_A12 [6]
EP4CE10F17C8N
U6-5
IO_B5_ P15/ RDN3/ DQ1R P15
IO_B5_ N14/ RUP3/ DM1R/BWS#1R N14 I2C1_SCL [8,10,11,12,13,14]
IO_B5_ N13 N13 I2C1_SDA [8,10,11,12,13,14]
IO_B5_ M12 M12 HDMI_CEC_A [14]
IO_B5_ L12 L12 HDMI_HPD [14]
IO_B5_ K12 K12 SD_D2 [8]
IO_B5_ J14/ DIFFIO_R6N/ DQ1R J14 SD_D3 [8]
IO_B5_ J12/ DIFFIO_R6P J12 SD_CMD [8]
IO_B5_ J16/ DIFFIO_R7N/ DEV_OE J16 SD_CLK [8]
IO_B5_ J15/ DIFFIO_R7P/ DEV_CLRN J15 SD_D0 [8]
IO_B5_ K16/ DIFFIO_R8N/ DQ1R K16 SD_D1 [8]
IO_B5_ K15/ DIFFIO_R8P/ DQS1R/CQ1R#,DPCLK4 K15 HDMI_TX2_N [14]
IO_B5_ L16/ DIFFIO_R9N/ DQ1R L16 HDMI_TX2_P [14]
IO_B5_ L15/ DIFFIO_R9P L15 HDMI_TX1_N [14]
IO_B5_ K11 K11 HDMI_TX1_P [14]
IO_B5_ N16/ DIFFIO_R10N/ DQ1R N16 T_PAD1 [10]
IO_B5_ N15/ DIFFIO_R10P/ DQ1R N15 HDMI_TX0_N [14]
IO_B5_ L13/ DQ1R L13 HDMI_TX0_P [14]
IO_B5_ P16/ DIFFIO_R11N/ DQS3R/CQ3R# P16 CAM_D7 [8,15]
IO_B5_ R16/ DIFFIO_R11P/ DQ1R R16 HDMI_TXC_N [14]
VREFB5N0 L14 HDMI_TXC_P [14]
IO_B5_ J11 J11 DHT11 [10]
IO_B5_ J13/ DQ1R J13 BEEP [10]
CAM_HS [8]
EP4CE10F17C8N
U6-6
IO_B6_ F13 F13
IO_B6_ B16/ DQS0R/CQ1R,DPCLK5 B16 CAM_D6 [8,15]
IO_B6_ C16/ DIFFIO_R1N/ DQS2R/CQ3R C16 CAM_D5 [8,15]
IO_B6_ C15/ DIFFIO_R1P C15 CAM_VS [8,15]
IO_B6_ D16/ DIFFIO_R2N D16 CAM_D4 [8,15]
IO_B6_ D15/ DIFFIO_R2P D15 CAM_D3 [8,15]
VREFB6N0 F14 CAM_XCLK [8,15]
IO_B6_ F15/ DIFFIO_R3P/ CLKUSR F15 CAM_D2 [8,15]
IO_B6_ F16/ DIFFIO_R3N/ NCEO F16 CAM_D1 [8,15]
IO_B6_ G11 G11 CAM_RST [8]
IO_B6_ G15/ DIFFIO_R4P/ CRC_ERROR G15 CAM_PDN [8,15]
IO_B6_ G16/ DIFFIO_R4N/ INIT_DONE G16 CAM_D0 [8]
IR_IN [10]
EP4CE10F17C8N
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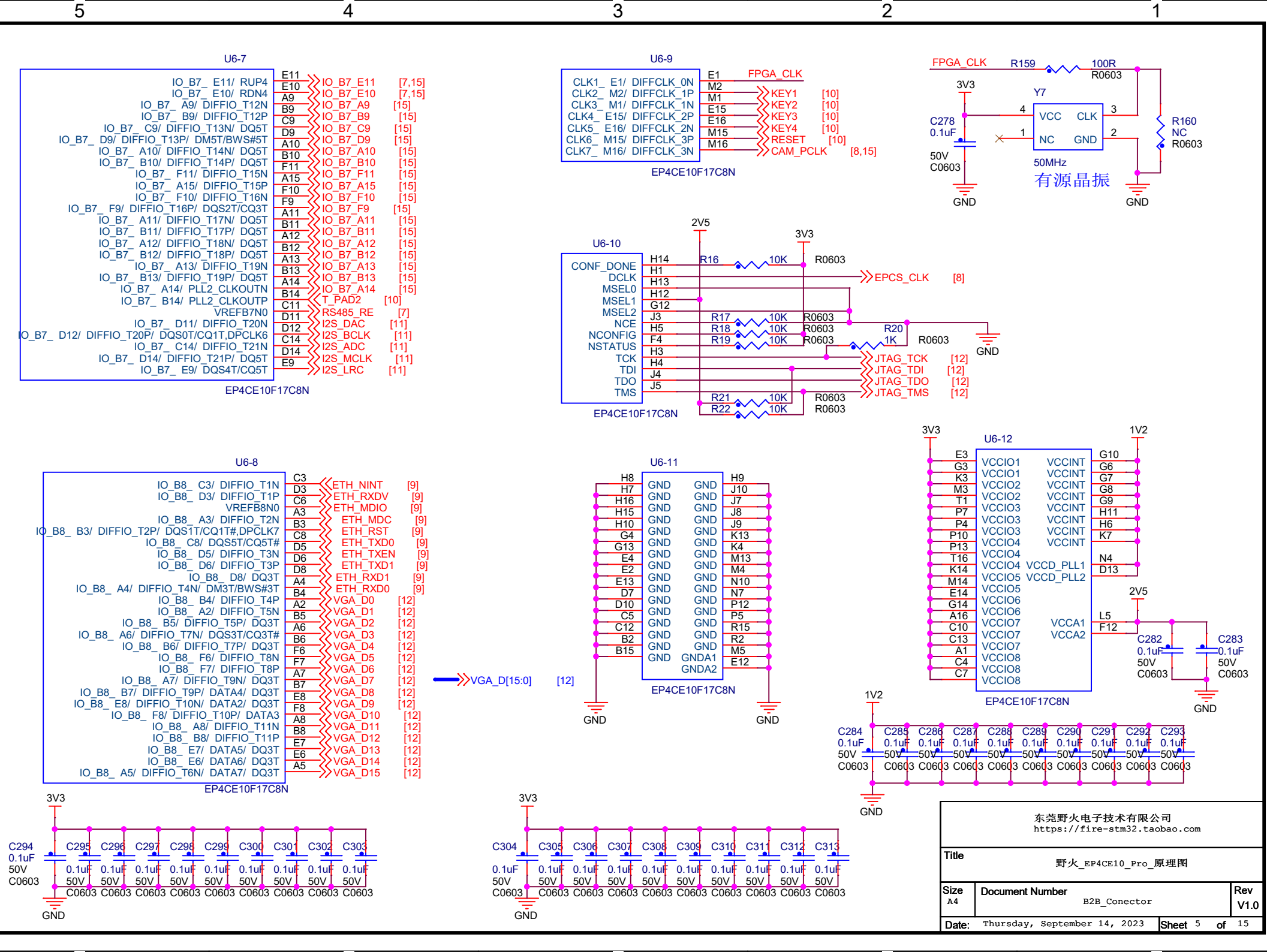
5
4
3
2
1
D
C
B
A
U6-7
IO_B7_ E11/ RUP4
IO_B7_ E10/ RDN4
IO_B7_ A9/ DIFFIO_T12N
IO_B7_ B9/ DIFFIO_T12P
IO_B7_ C9/ DIFFIO_T13N/ DQ5T
IO_B7_ D9/ DIFFIO_T13P/ DM5T/BWS#5T
IO_B7_ A10/ DIFFIO_T14N/ DQ5T
IO_B7_ B10/ DIFFIO_T14P/ DQ5T
IO_B7_ F11/ DIFFIO_T15N
IO_B7_ A15/ DIFFIO_T15P
IO_B7_ F10/ DIFFIO_T16N
IO_B7_ F9/ DIFFIO_T16P/ DQS2T/CQ3T
IO_B7_ A11/ DIFFIO_T17N/ DQ5T
IO_B7_ B11/ DIFFIO_T17P/ DQ5T
IO_B7_ A12/ DIFFIO_T18N/ DQ5T
IO_B7_ B12/ DIFFIO_T18P/ DQ5T
IO_B7_ A13/ DIFFIO_T19N
IO_B7_ B13/ DIFFIO_T19P/ DQ5T
IO_B7_ A14/ PLL2_CLKOUTN
IO_B7_ B14/ PLL2_CLKOUTP
VREFB7N0
IO_B7_ D11/ DIFFIO_T20N
IO_B7_ D12/ DIFFIO_T20P/ DQS0T/CQ1T,DPCLK6
IO_B7_ C14/ DIFFIO_T21N
IO_B7_ D14/ DIFFIO_T21P/ DQ5T
IO_B7_ E9/ DQS4T/CQ5T
E11 IO_B7_E11 [7,15]
E10 IO_B7_E10 [7,15]
A9 IO_B7_A9 [15]
B9 IO_B7_B9 [15]
C9 IO_B7_C9 [15]
D9 IO_B7_D9 [15]
A10 IO_B7_A10 [15]
B10 IO_B7_B10 [15]
F11 IO_B7_F11 [15]
A15 IO_B7_A15 [15]
F10 IO_B7_F10 [15]
F9 IO_B7_F9 [15]
A11 IO_B7_A11 [15]
B11 IO_B7_B11 [15]
A12 IO_B7_A12 [15]
B12 IO_B7_B12 [15]
A13 IO_B7_A13 [15]
B13 IO_B7_B13 [15]
A14 IO_B7_A14 [15]
B14 T_PAD2 [10]
C11 RS485_RE [7]
D11 I2S_DAC [11]
D12 I2S_BCLK [11]
C14 I2S_ADC [11]
D14 I2S_MCLK [11]
E9 I2S_LRC [11]
EP4CE10F17C8N
U6-9
CLK1_ E1/ DIFFCLK_0N
CLK2_ M2/ DIFFCLK_1P
CLK3_ M1/ DIFFCLK_1N
CLK4_ E15/ DIFFCLK_2P
CLK5_ E16/ DIFFCLK_2N
CLK6_ M15/ DIFFCLK_3P
CLK7_ M16/ DIFFCLK_3N
E1 FPGA_CLK
M2 KEY1 [10]
M1 KEY2 [10]
E15 KEY3 [10]
E16 KEY4 [10]
M15 RESET [10]
M16 CAM_PCLK [8,15]
EP4CE10F17C8N
FPGA_CLK
R159
100R
R0603
3V3
Y7
C278
0.1uF
50V
C0603
VCC
CLK
NC
GND
50MHz
有源晶振
R160
NC
R0603
GND
GND
U6-10
CONF_DONE
DCLK
MSEL0
MSEL1
MSEL2
NCE
NCONFIG
NSTATUS
TCK
TDI
TDO
TMS
H14
H1
H13
H12
G12
J3
H5
F4
H3
H4
J4
J5
2V5
3V3
R16 10K R0603
EPCS_CLK [8]
R17 10K R0603
R18 10K R0603
R19 10K R0603
R20 1K R0603
JTAG_TCK [12]
JTAG_TDI [12]
JTAG_TDO [12]
JTAG_TMS [12]
R21 10K R0603
R22 10K R0603
GND
EP4CE10F17C8N
U6-8
IO_B8_ C3/ DIFFIO_T1N
IO_B8_ D3/ DIFFIO_T1P
VREFB8N0
IO_B8_ A3/ DIFFIO_T2N
IO_B8_ B3/ DIFFIO_T2P/ DQS1T/CQ1T#,DPCLK7
IO_B8_ C8/ DQS5T/CQ5T#
IO_B8_ D5/ DIFFIO_T3N
IO_B8_ D6/ DIFFIO_T3P
IO_B8_ D8/ DQ3T
IO_B8_ A4/ DIFFIO_T4N/ DM3T/BWS#3T
IO_B8_ B4/ DIFFIO_T4P
IO_B8_ A2/ DIFFIO_T5N
IO_B8_ B5/ DIFFIO_T5P/ DQ3T
IO_B8_ A6/ DIFFIO_T7N/ DQS3T/CQ3T#
IO_B8_ B6/ DIFFIO_T7P/ DQ3T
IO_B8_ F6/ DIFFIO_T8N
IO_B8_ F7/ DIFFIO_T8P
IO_B8_ A7/ DIFFIO_T9N/ DQ3T
IO_B8_ B7/ DIFFIO_T9P/ DATA4/ DQ3T
IO_B8_ E8/ DIFFIO_T10N/ DATA2/ DQ3T
IO_B8_ F8/ DIFFIO_T10P/ DATA3
IO_B8_ A8/ DIFFIO_T11N
IO_B8_ B8/ DIFFIO_T11P
IO_B8_ E7/ DATA5/ DQ3T
IO_B8_ E6/ DATA6/ DQ3T
IO_B8_ A5/ DIFFIO_T6N/ DATA7/ DQ3T
C3 ETH_NINT [9]
D3 ETH_RXDV [9]
C6 ETH_MDIO [9]
A3 ETH_MDC [9]
B3 ETH_RST [9]
C8 ETH_TXD0 [9]
D5 ETH_TXEN [9]
D6 ETH_TXD1 [9]
D8 ETH_RXD1 [9]
A4 ETH_RXD0 [9]
B4 VGA_D0 [12]
A2 VGA_D1 [12]
B5 VGA_D2 [12]
A6 VGA_D3 [12]
B6 VGA_D4 [12]
F6 VGA_D5 [12]
F7 VGA_D6 [12]
A7 VGA_D7 [12]
B7 VGA_D8 [12]
E8 VGA_D9 [12]
F8 VGA_D10 [12]
A8 VGA_D11 [12]
B8 VGA_D12 [12]
E7 VGA_D13 [12]
E6 VGA_D14 [12]
A5 VGA_D15 [12]
VGA_D[15:0] [12]
EP4CE10F17C8N
U6-11
H8 H7 H16 H15 H10 G4 G13 E4 E2 E13 D7 D10 C5 C12 B2 B15
GND
H9 J10 J7 J8 J9 K13 K4 M13 M4 N10 N7 P12 P5 R15 R2 M5 E12
GNDA1 GNDA2
EP4CE10F17C8N
GND
GND
U6-12
E3 G3 K3 M3 T1 P7 P4 P10 P13 T16 K14 M14 E14 G14 A16 C10 C13 A1 C4 C7
VCCIO1 VCCIO1 VCCIO2 VCCIO2 VCCIO3 VCCIO3 VCCIO4 VCCIO4 VCCIO5 VCCIO5 VCCIO6 VCCIO6 VCCIO7 VCCIO7 VCCIO7 VCCIO8 VCCIO8 VCCIO8
VCCINT VCCINT VCCINT VCCINT VCCINT VCCINT VCCINT VCCINT VCCD_PLL1 VCCD_PLL2 VCCA1 VCCA2
G10 G6 G7 G8 G9 H11 H6 K7 N4 D13 L5 F12
3V3
1V2
2V5
C282 0.1uF 50V C0603
C283 0.1uF 50V C0603
GND
EP4CE10F17C8N
1V2
C284 C285 C286 C287 C288 C289 C290 C291 C292 C293
0.1uF 50V C0603
GND
3V3
C294 C295 C296 C297 C298 C299 C300 C301 C302 C303
0.1uF 50V C0603
GND
3V3
C304 C305 C306 C307 C308 C309 C310 C311 C312 C313
0.1uF 50V C0603
GND
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https://fire-stm32.taobao.com
Title
野火_EP4CE10_Pro_原理图
Size A4
Document Number B2B_Conector
Rev V1.0
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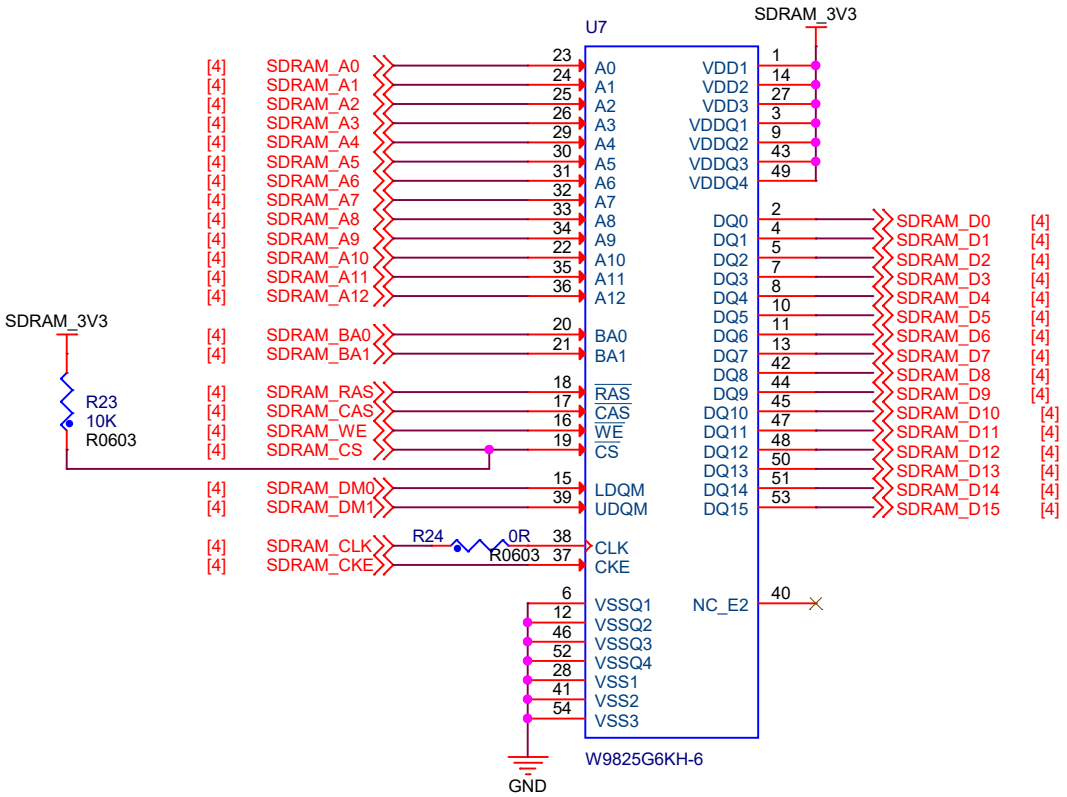

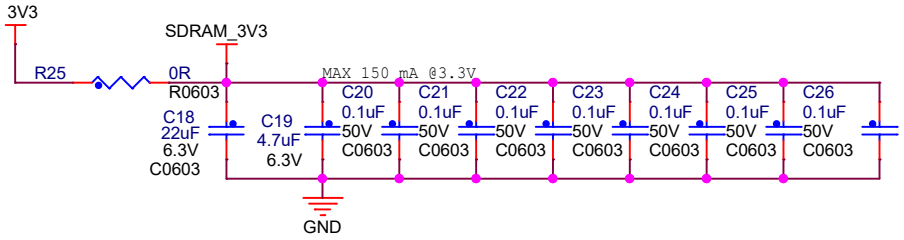

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Title	野火_EP4CE10_Pro_原理图	
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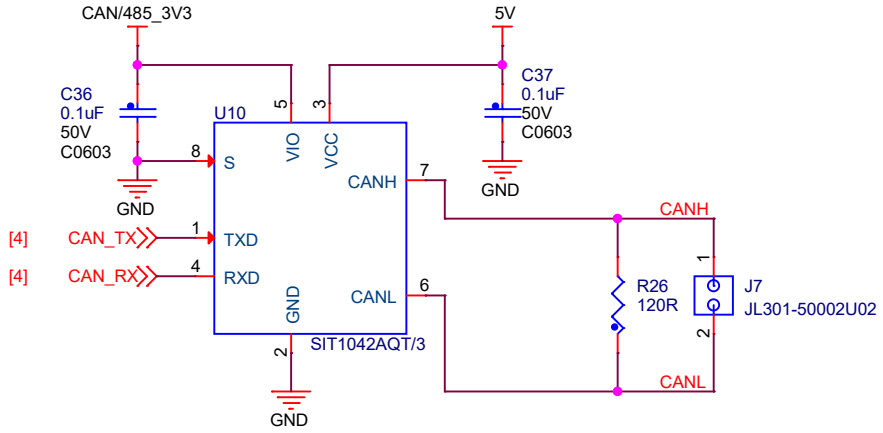
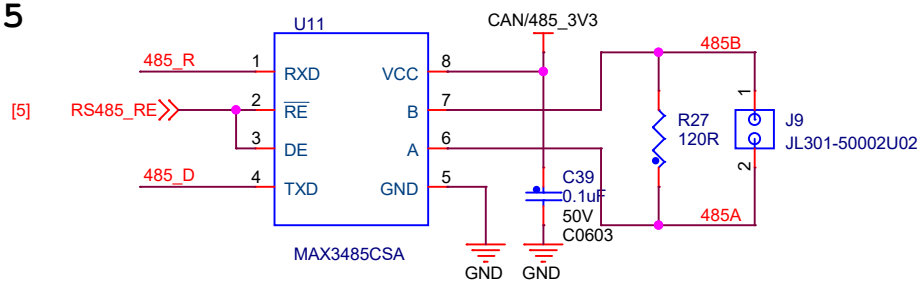
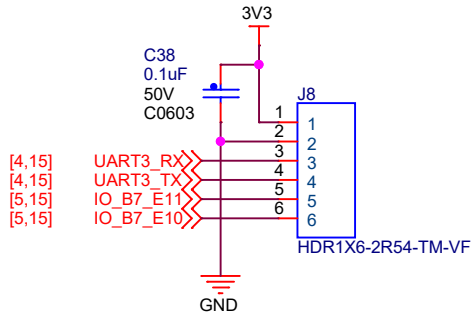
CAN



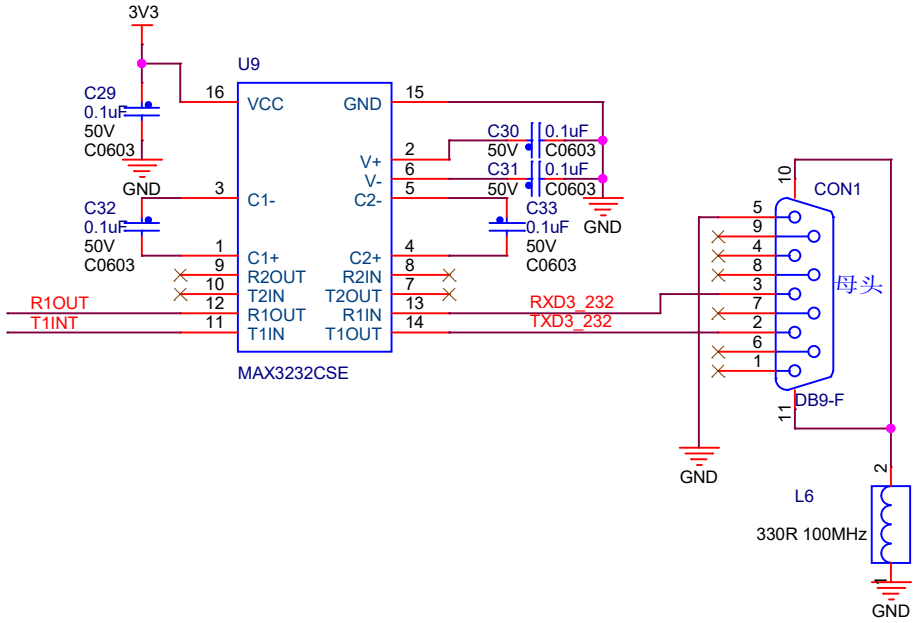
RS485



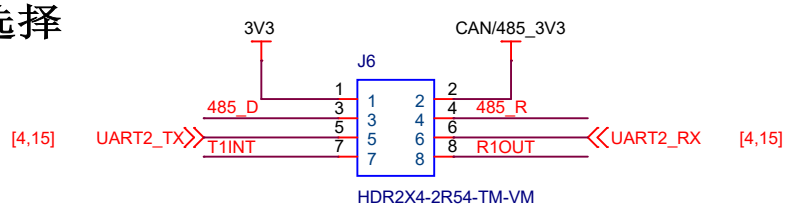
EBF-Module



RS232串口



跳帽选择



CAN和485的电源
由跳帽J6的1和2脚控制，默认不接

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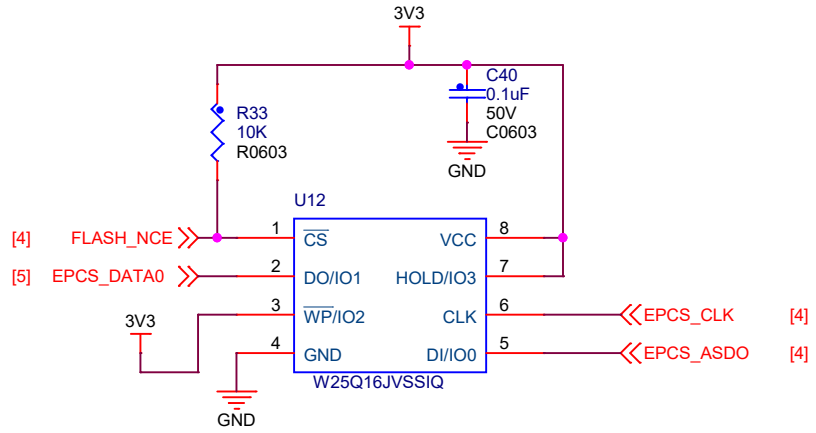
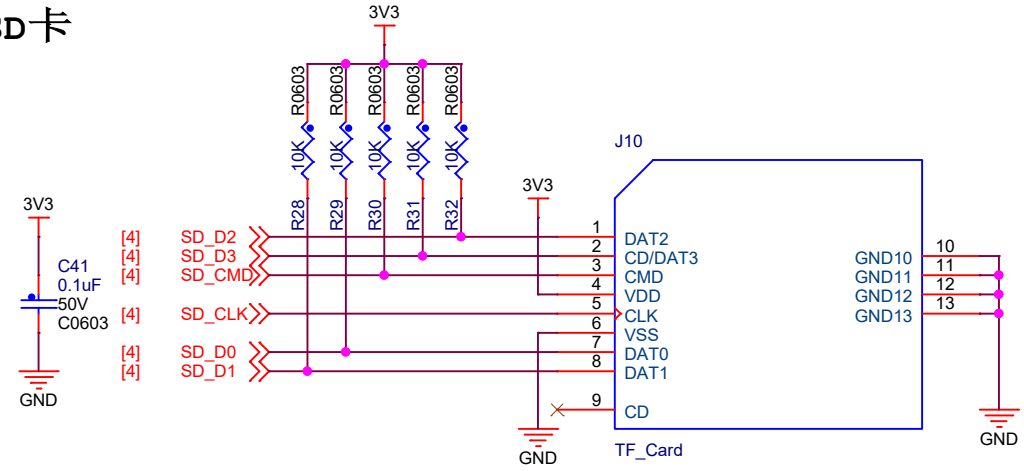
SPI_FLASH

容量：16M字节



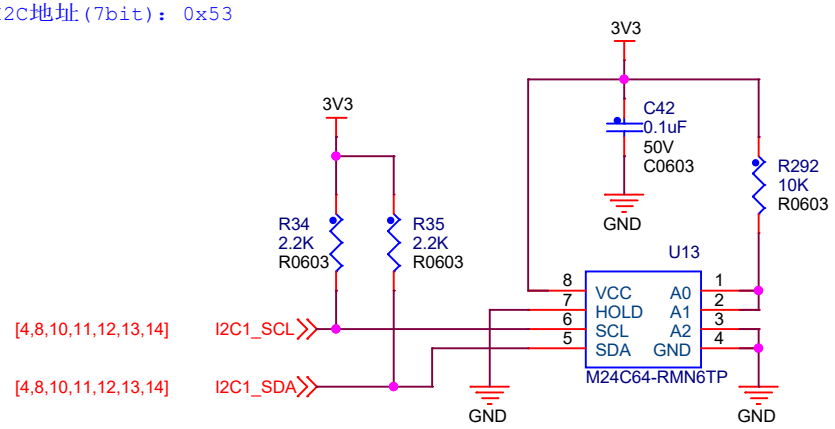
SD卡



EEPROM

容量：8K字节

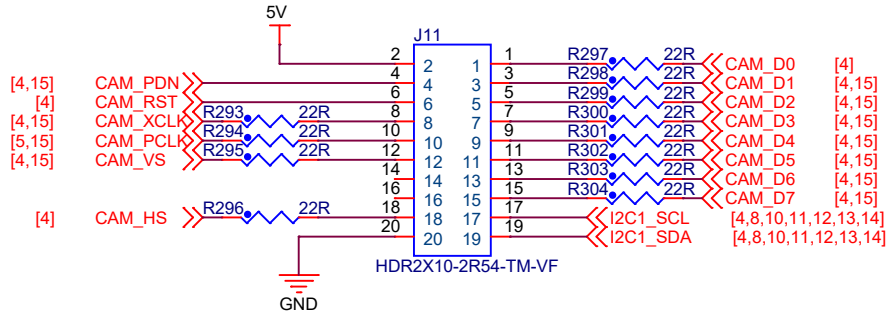
I2C地址(7bit)：0x53



摄像头接口

OV5640_I2C地址(7bit)：0x3C

OV7725_I2C地址(7bit)：0x21



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Title	野火_EP4CE10_Pro_原理图	
Size A4	Document Number 摄像头/SPI闪存/EEPROM	Rev V1.0
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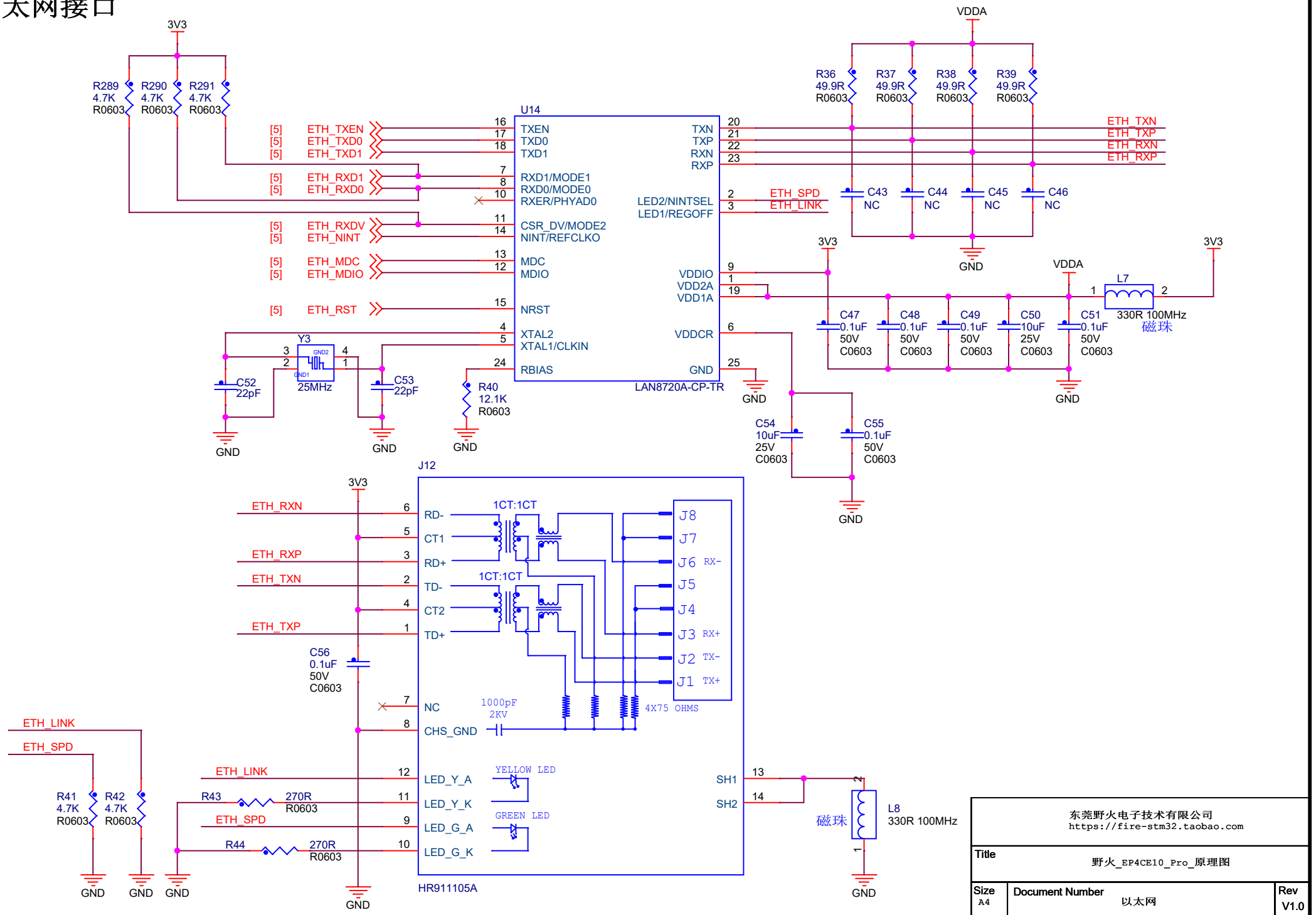
以太网接口



东莞野火电子技术有限公司 https://fire-stm32.taobao.com	
Title	野火_EP4CE10_Pro_原理图
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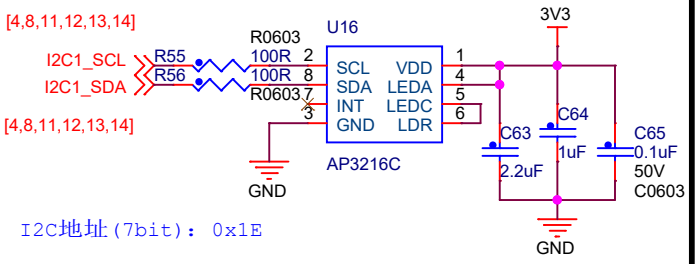
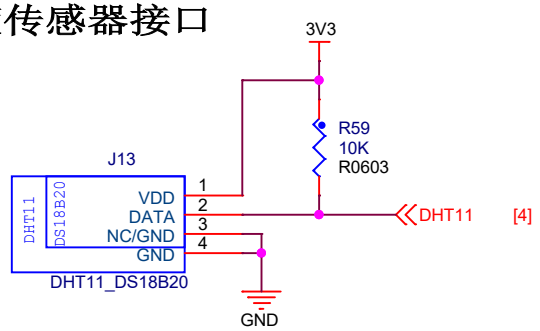
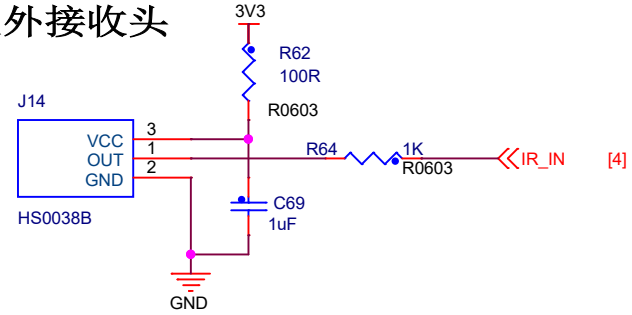
ALS+PS+IRLED（三合一）



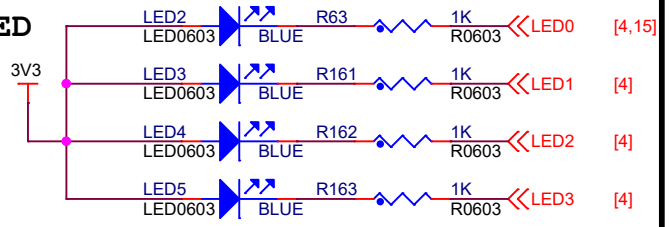
温湿度传感器接口



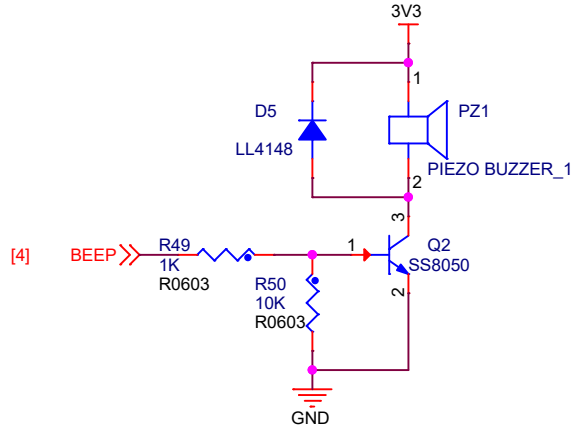
红外接收头



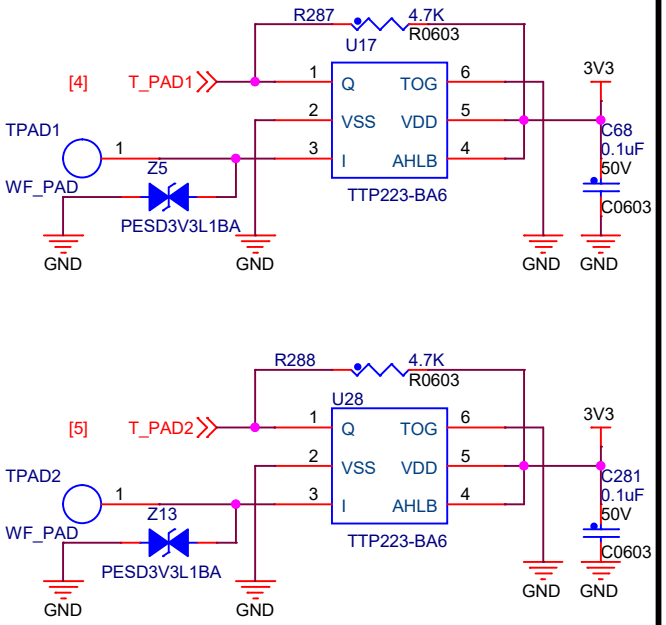
LED



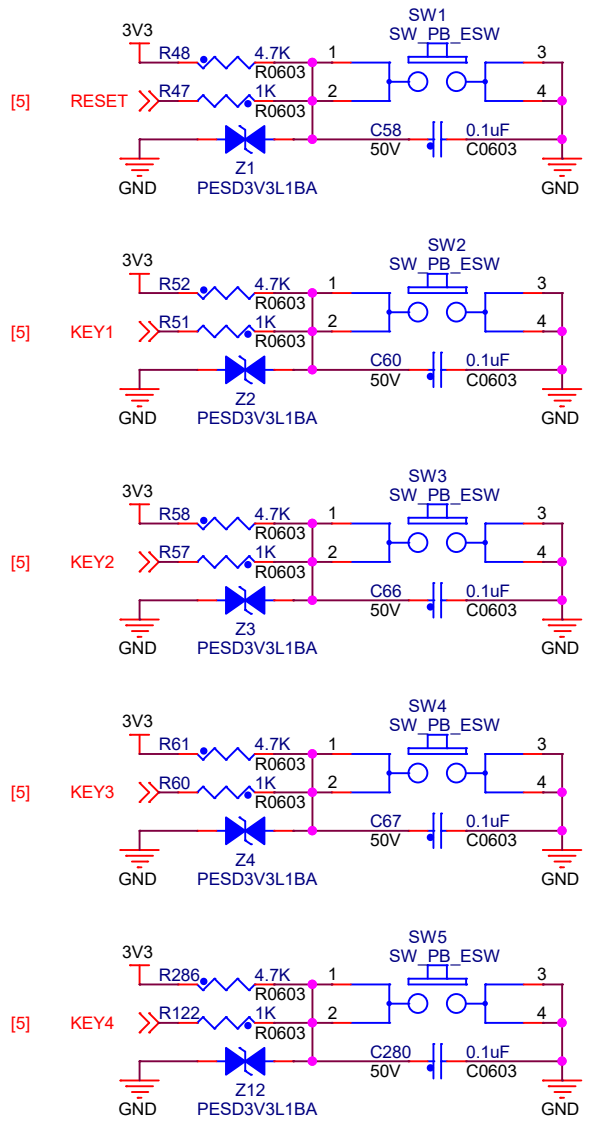
蜂鸣器



触摸按键



按键



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Title	野火_EP4CE10_Pro_原理图	
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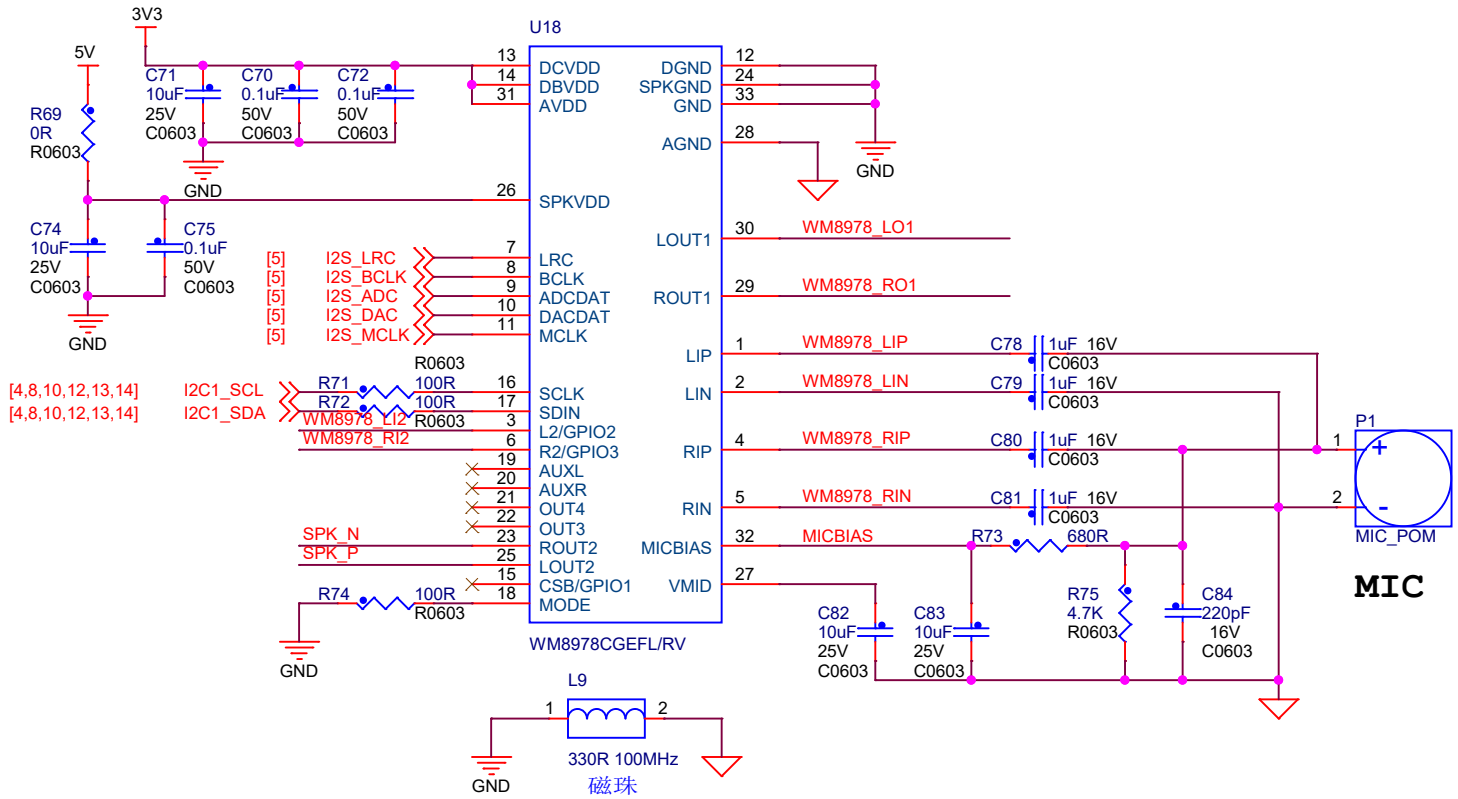
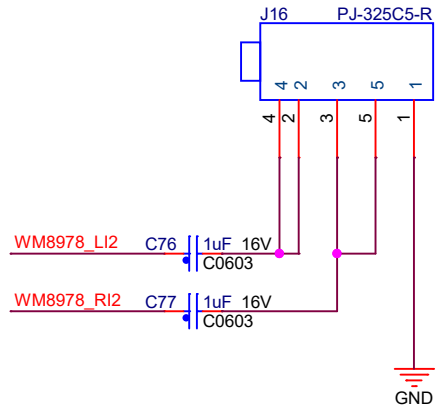
MIC插头

I2C地址(7bit)： 0x1A

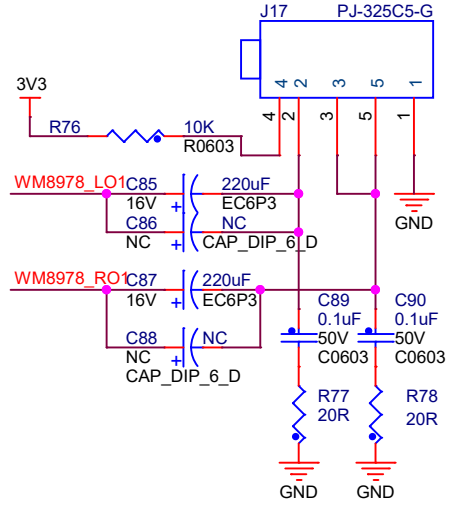


MIC

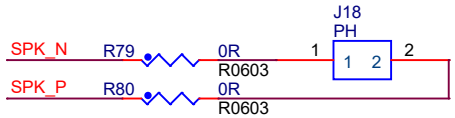
音频输入



耳机插座



喇叭插座



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Title	野火_EP4CE10_Pro_原理图	
Size A4	Document Number 音频	Rev V1.0
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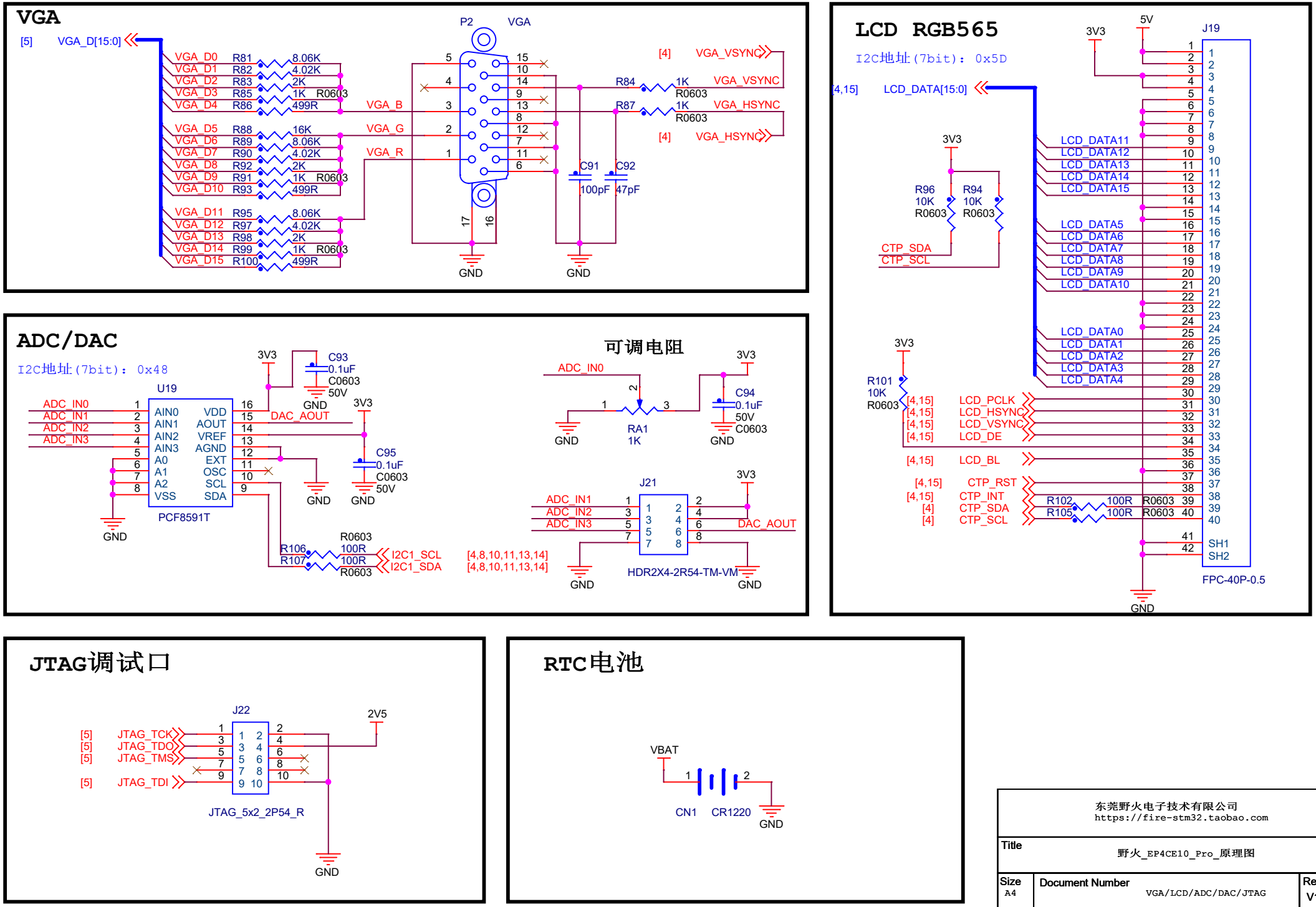
VGA
[5] VGA_D[15:0]
VGA_D0 R81 8.06K
VGA_D1 R82 4.02K
VGA_D2 R83 2K
VGA_D3 R85 1K R0603
VGA_D4 R86 499R
VGA_B
VGA_D5 R88 16K
VGA_D6 R89 8.06K
VGA_D7 R90 4.02K
VGA_D8 R92 2K
VGA_D9 R91 1K R0603
VGA_D10 R93 499R
VGA_G
VGA_D11 R95 8.06K
VGA_D12 R97 4.02K
VGA_D13 R98 2K
VGA_D14 R99 1K R0603
VGA_D15 R100 499R
VGA_R
P2 VGA
5 4 3 2 1
15 10 14 9 13 8 12 7 11 6
17 16
GND GND
[4] VGA_VSYNC
R84 1K R0603
VGA_VSYNC
R87 1K R0603
VGA_HSYNC
[4] VGA_HSYNC
C91 100pF
C92 47pF
ADC/DAC
I2C地址(7bit): 0x48
U19
ADC_IN0 ADC_IN1 ADC_IN2 ADC_IN3
AIN0 AIN1 AIN2 AIN3 A0 A1 A2 VSS
VDD AOUT VREF AGND EXT OSC SCL SDA
PCF8591T
3V3 C93 0.1uF C0603 50V GND
DAC_AOUT
C95 0.1uF C0603 50V
R106 R107 R0603 100R R0603 100R
I2C1_SCL I2C1_SDA
可调电阻
ADC_IN0
RA1 1K
3V3 C94 0.1uF 50V C0603
J21
ADC_IN1 ADC_IN2 ADC_IN3
DAC_AOUT
HDR2X4-2R54-TM-VM
[4,8,10,11,13,14]
[4,8,10,11,13,14]
LCD RGB565
I2C地址(7bit): 0x5D
[4,15] LCD_DATA[15:0]
3V3 5V
J19
R96 10K R0603
R94 10K R0603
CTP_SDA
CTP_SCL
LCD_DATA11 LCD_DATA12 LCD_DATA13 LCD_DATA14 LCD_DATA15
LCD_DATA5 LCD_DATA6 LCD_DATA7 LCD_DATA8 LCD_DATA9 LCD_DATA10
LCD_DATA0 LCD_DATA1 LCD_DATA2 LCD_DATA3 LCD_DATA4
R101 10K R0603
[4,15] LCD_PCLK
[4,15] LCD_HSYNC
[4,15] LCD_VSYNC
[4,15] LCD_DE
[4,15] LCD_BL
[4,15] CTP_RST
[4,15] CTP_INT
[4] CTP_SDA
[4] CTP_SCL
R102 R105 100R R0603
SH1 SH2
FPC-40P-0.5
JTAG调试口
J22
[5] JTAG_TCK
[5] JTAG_TDO
[5] JTAG_TMS
[5] JTAG_TDI
2V5
JTAG_5x2_2P54_R
RTC电池
VBAT
CN1 CR1220
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https://fire-stm32.taobao.com
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Size A4
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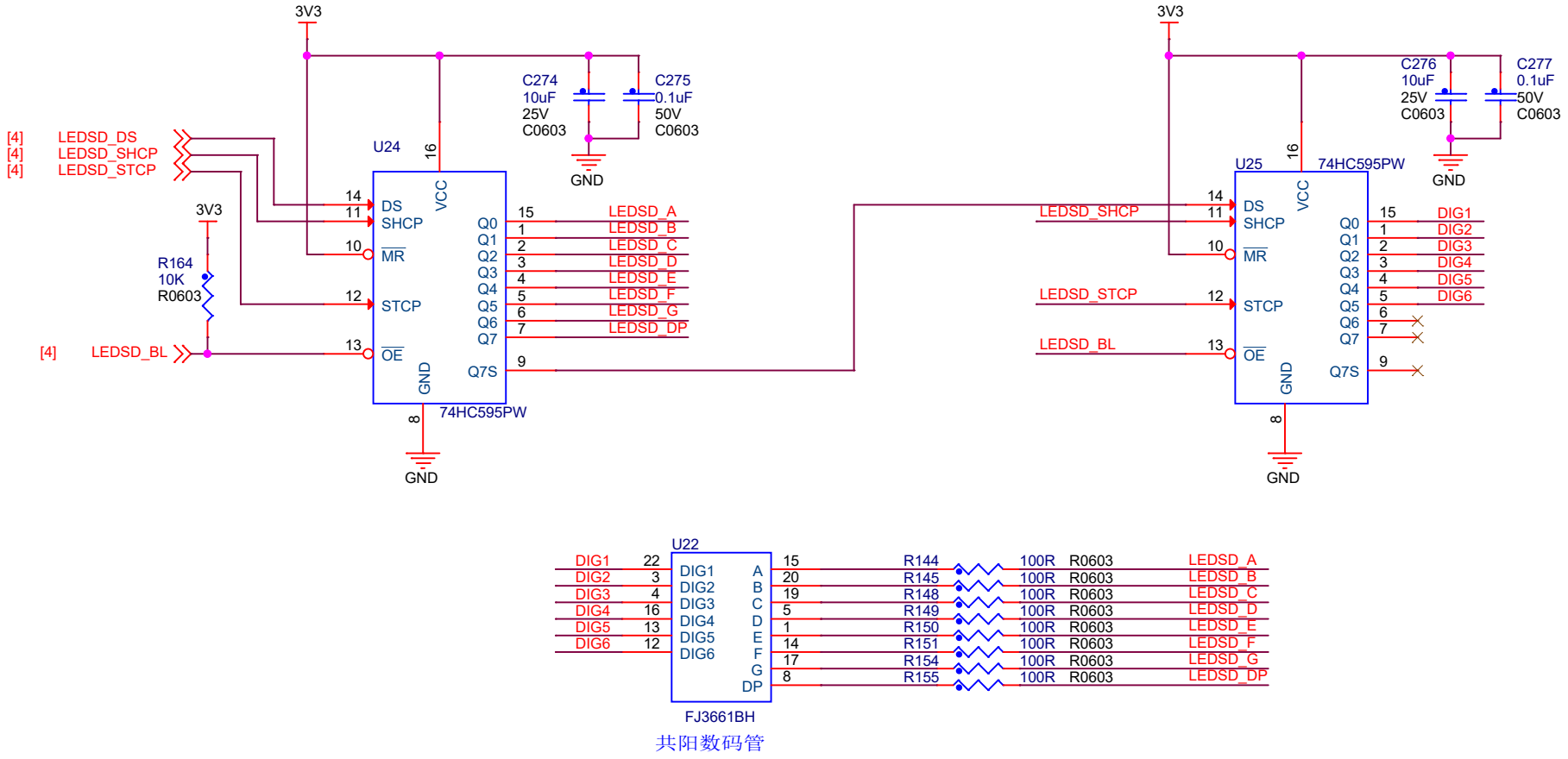
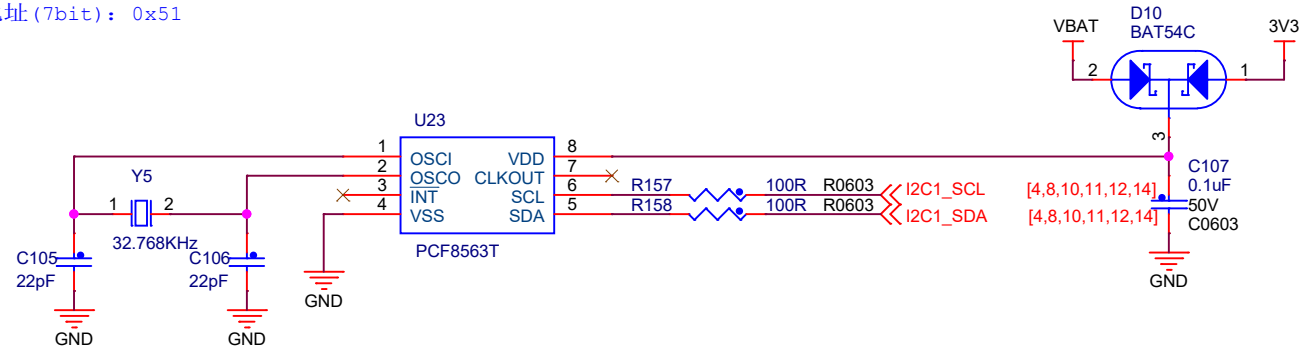
LED数码管



RTC

I2C地址(7bit)：0x51



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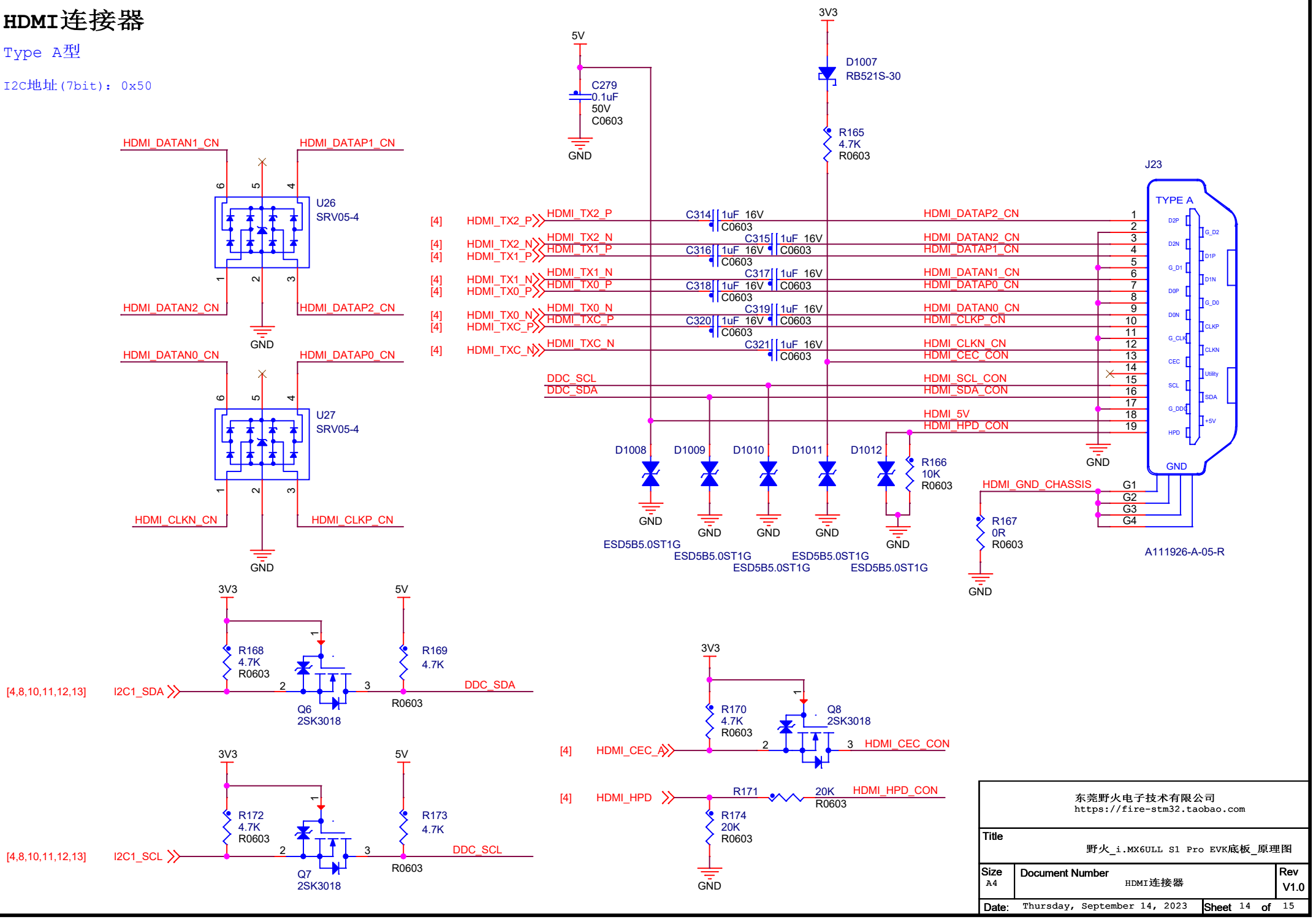
HDMI连接器

Type A型

I2C地址(7bit)：0x50



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Title	野火_i.MX6ULL S1 Pro EVK底板_原理图	
Size A4	Document Number HDMI连接器	Rev V1.0
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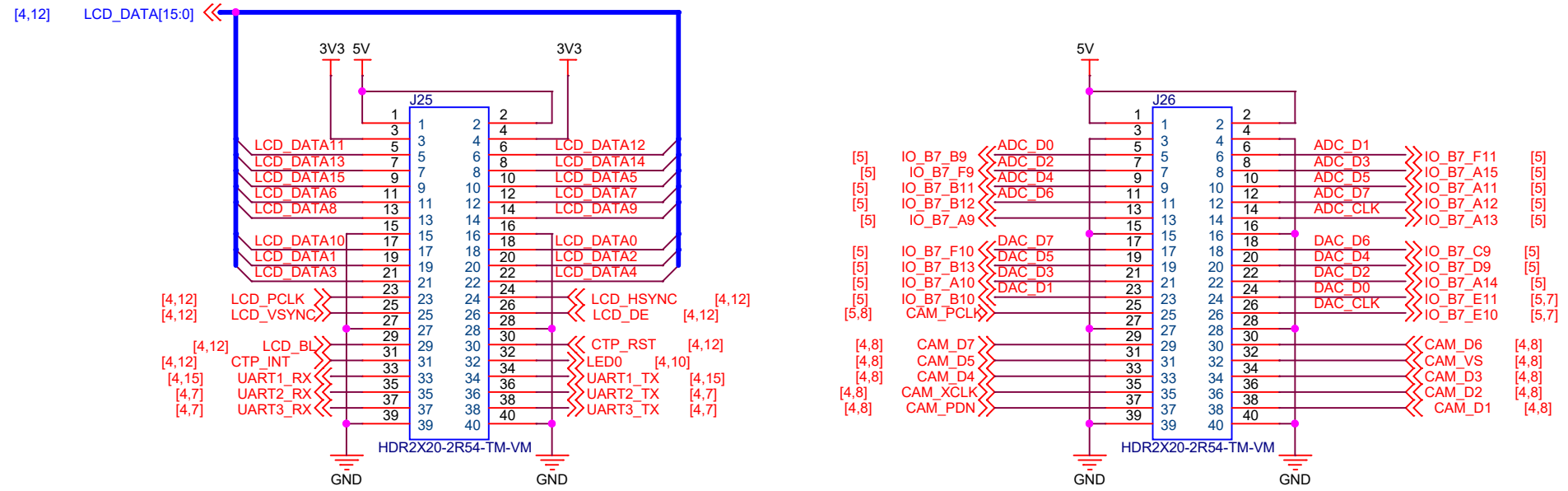
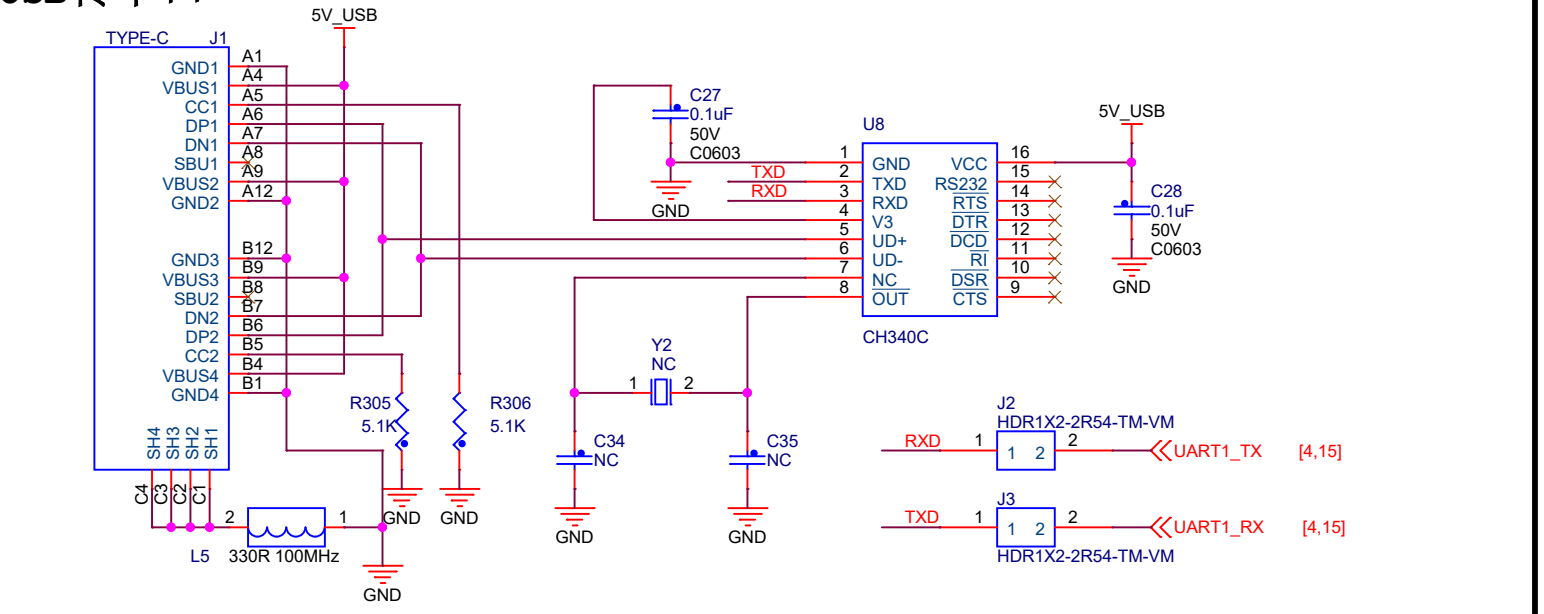
引出IO口



USB转串口



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Title	野火_EP4CE10_Pro_原理图	
Size A4	Document Number 引出IO	Rev V1.0
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