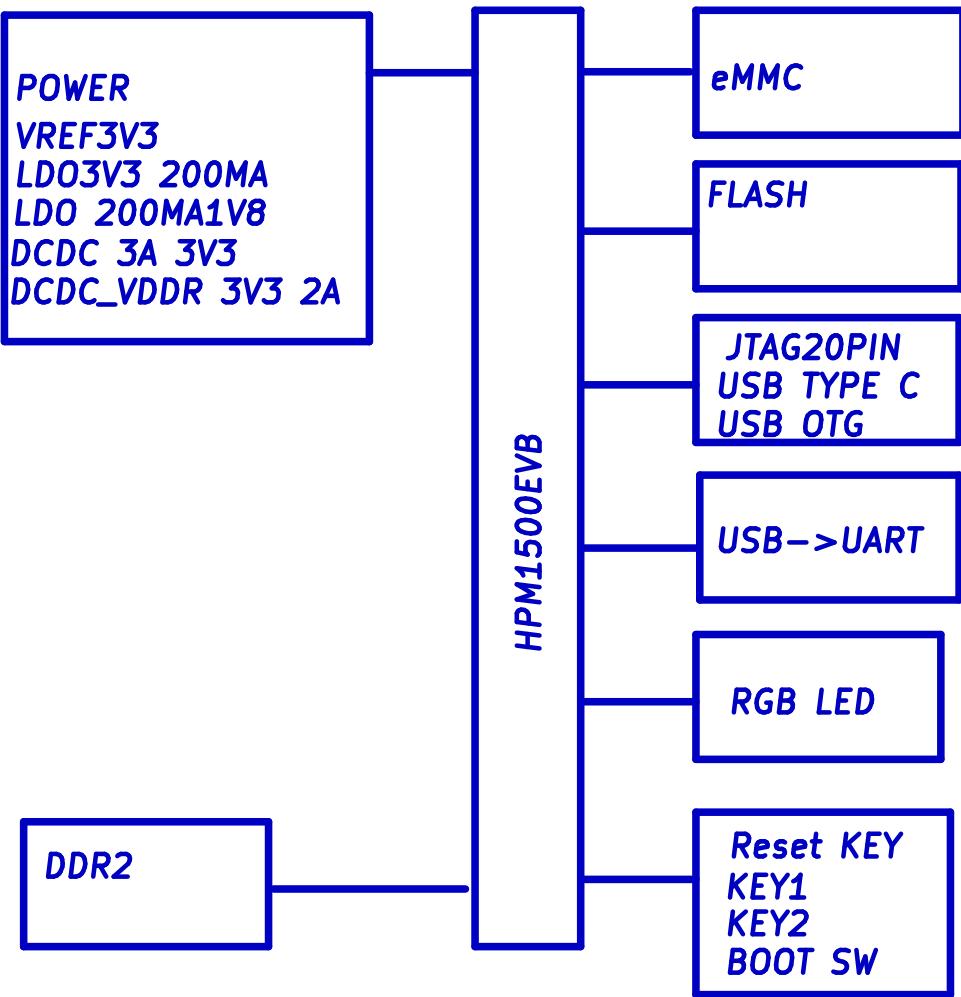


System block diagram



修订历史	
内容	时间
HPM1500_DDR2_CORE_RevA JTAG 调试接口 (20pin) MCU+DDR Power by USB port eMMC as boot XPI as boot Boot code LED as indicator Button UART 300pin connector(100pin * 3)	20230312

System block diagram

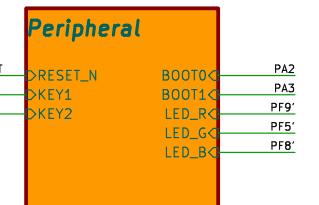
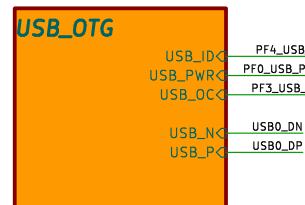
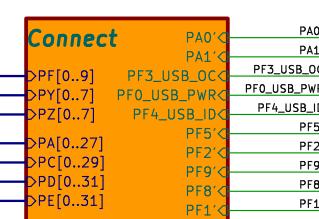
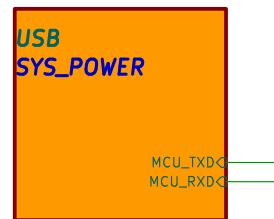
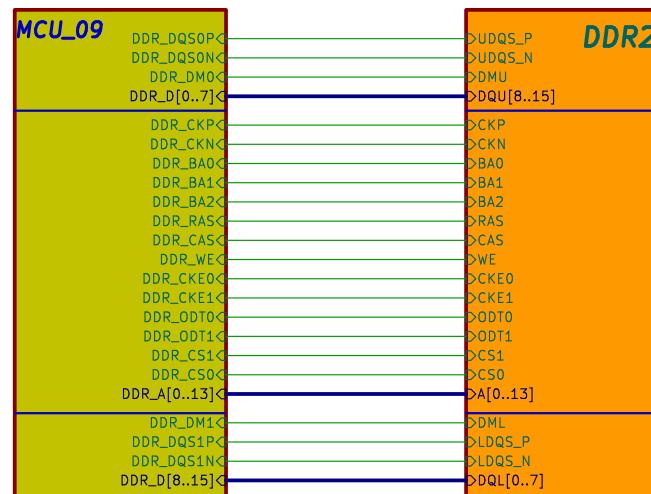
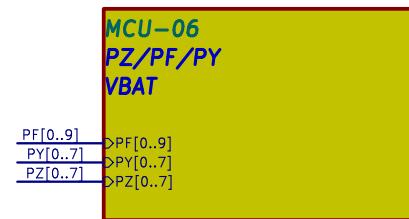
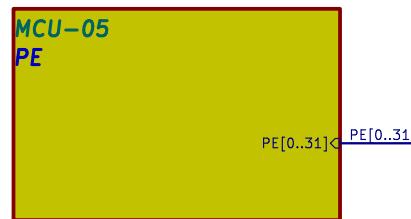
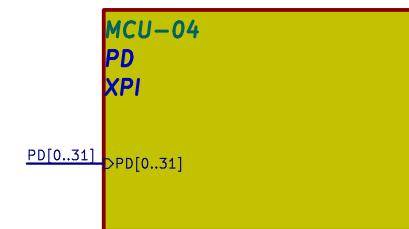
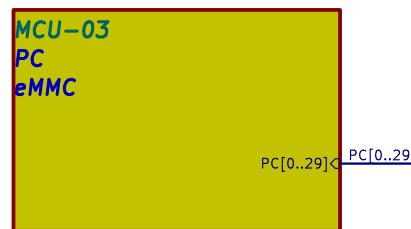
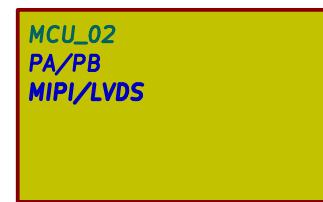


Sheet:
File: HPM1500_DDR2_CORE_RevA.kicad_sch

Title:

Size: A4 Date:
KiCad E.D.A. kicad 7.0.2

Rev:
Id: 1/16



01-Main



Sheet: Main
File: Main.kicad_sch

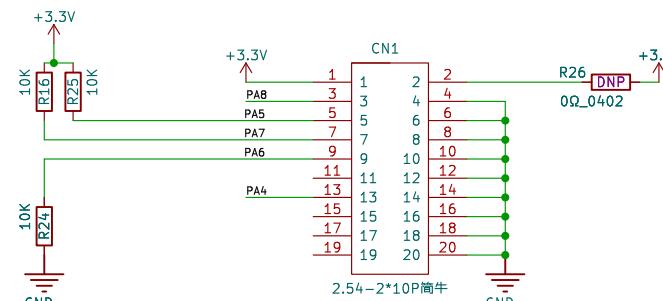
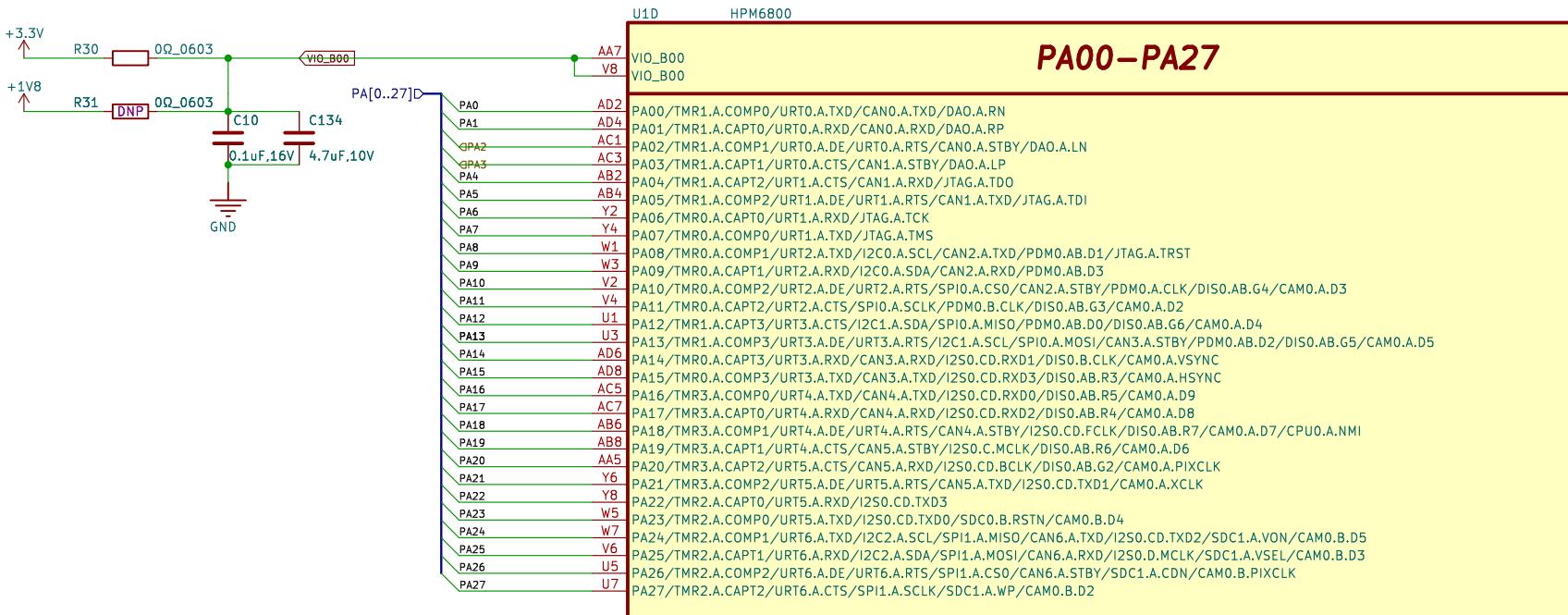
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 2/16



02 MCU_01



Sheet: MCU_01
File: MCU_01.kicad_sch

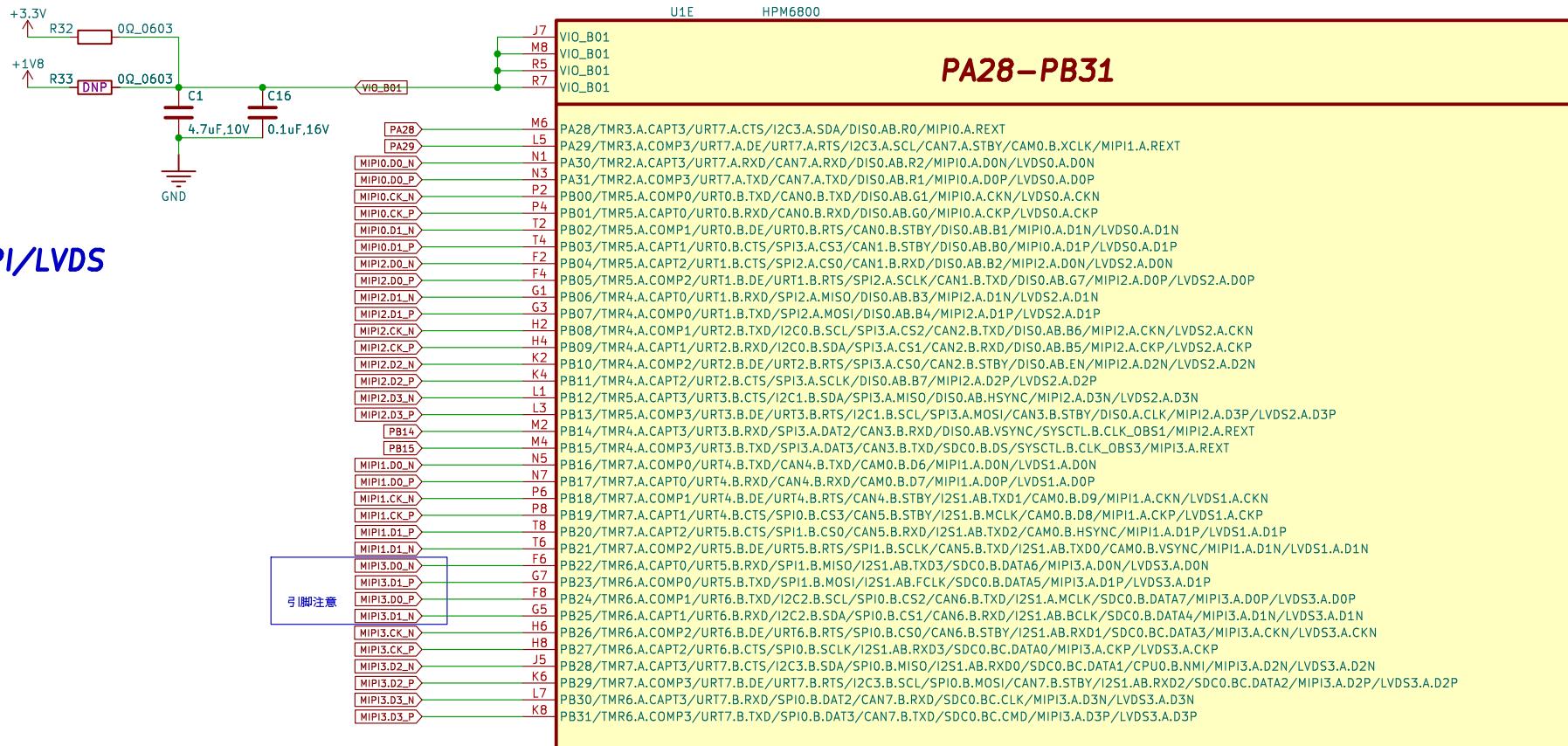
Title:

Size: A4 Date:

Rev:

KiCad E.D.A. kicad 7.0.2

Id: 3/16



03 MCU_02



Sheet: MCU_02
File: MCU_02.kicad_sch

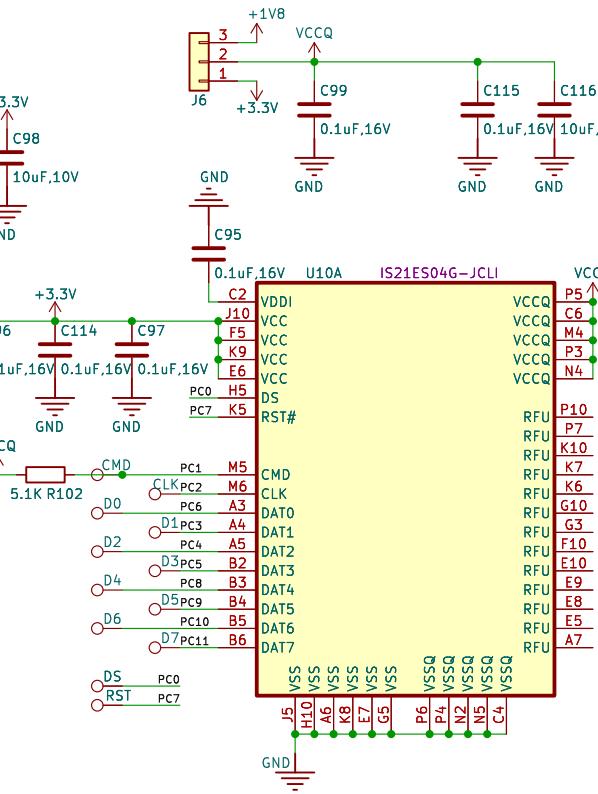
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

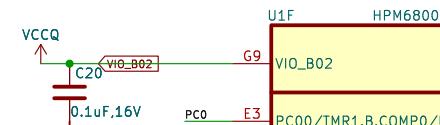
Id: 4/16



M3	NC	C14
M2	NC	D1
M1	NC	D2
L14	NC	D3
L13	NC	D4
L12	NC	D12
L3	NC	D13
L2	NC	D14
L1	NC	E1
K14	NC	E2
K13	NC	E3
K12	NC	E12
K3	NC	E13
K2	NC	E14
K1	NC	F1
J14	NC	F2
J13	NC	F3
J12	NC	F12
J3	NC	F13
J2	NC	F14
J1	NC	G1
H14	NC	G2
H13	NC	G12
H12	NC	G13
H3	NC	G14
P14	NC	C13
H2	NC	H1

M3	NC	C14
M2	NC	D1
M1	NC	D2
L14	NC	D3
L13	NC	D4
L12	NC	D12
L3	NC	D13
L2	NC	D14
L1	NC	E1
K14	NC	E2
K13	NC	E3
K12	NC	E12
K3	NC	E13
K2	NC	E14
K1	NC	F1
J14	NC	F2
J13	NC	F3
J12	NC	F12
J3	NC	F13
J2	NC	F14
J1	NC	G1
H14	NC	G2
H13	NC	G12
H12	NC	G13
H3	NC	G14
P14	NC	C13
H2	NC	H1

M3	NC	C14
M2	NC	D1
M1	NC	D2
L14	NC	D3
L13	NC	D4
L12	NC	D12
L3	NC	D13
L2	NC	D14
L1	NC	E1
K14	NC	E2
K13	NC	E3
K12	NC	E12
K3	NC	E13
K2	NC	E14
K1	NC	F1
J14	NC	F2
J13	NC	F3
J12	NC	F12
J3	NC	F13
J2	NC	F14
J1	NC	G1
H14	NC	G2
H13	NC	G12
H12	NC	G13
H3	NC	G14
P14	NC	C13
H2	NC	H1



PC00-PC11

PC0/TMR1.B.COMPO/URTO.C.TXD/CANO.C.TXD/I2S2.B.MCLK/SDC0.A.DS/XPI_SLV.A.DQS
 PC1/TMR1.B.CAPTO/URTO.C.RXD/CANO.C.RXD/I2S2.AB.RXD2/SDC0.A.CMD/CPU0.C.NMI/XPI_SLV.A.CLK
 PC2/TMR1.B.COMP1/URTO.C.DE/URTO.C.RTS/CANO.C.STBY/I2S2.AB.RXD3/SDC0.A.CLK/XPI_SLV.A.CSN
 PC3/TMR1.B.CAP1/URTO.C.CTS/CAN1.C.STBY/I2S2.AB.RXD0/SDC0.A.DATA1/XPI_SLV.A.ADQ1
 PC4/TMR1.B.CAP2/URT1.C.CTS/SPI2.B.CS0/CAN1.C.RXD/I2S2.AB.RXD1/SDC0.A.DATA2/XPI_SLV.A.ADQ3
 PC5/TMR1.B.COMP2/URT1.C.DE/URT1.C.RTS/SPI2.B.SCLK/CAN1.C.TXD/I2S2.AB.BCLK/SDC0.A.DATA3/XPI_SLV.A.ADQ0
 PC6/TMR0.B.CAPTO/URT1.C.TXD/SPI2.B.MISO/I2S2.AB.FCLK/SDC0.A.DATA0/XPI_SLV.A.RSTN
 PC7/TMR0.B.COMP1/URT2.C.TXD/I2C0.C.SCL/CAN2.C.TXD/I2S2.AB.TXD2/DAO.B.LN/SDC0.A.DATA4/XPI_SLV.A.ERR
 PC9/TMR0.B.CAP1/URT2.C.RXD/I2C0.C.SDA/CAN2.C.RXD/I2S2.AB.TXD3/DAO.B.LP/SDC0.A.DATA5/XPI_SLV.A.RDY
 PC10/TMR0.B.COMP2/URT2.C.DE/URT2.C.RTS/CAN2.C.STBY/I2S2.AB.TXD0/DAO.B.RN/SDC0.A.DATA6
 PC11/TMR0.B.CAP2/URT2.C.CTS/I2S2.AB.TXD1/DAO.B.RP/SDC0.A.DATA7

PC12-PC17

PC12/TMR1.B.CAP3/URT3.C.CTS/I2C1.C.SDA/SPI3.B.MISO/PDM0.CD.D0/SDC1.AC.DATA3
 PC13/TMR1.B.COMP3/URT3.C.DE/URT3.C.RTS/I2C1.C.SCL/SPI3.B.MOSI/CAN3.C.STBY/PDM0.C.CLK/SDC1.AC.CMD
 PC14/TMR0.B.CAP3/URT3.C.RXD/SPI3.B.CS0/CAN3.C.RXD/PDM0.CD.D1/SDC1.AC.DATA2
 PC15/TMR0.B.COMP3/URT3.C.TXD/SPI3.B.SCLK/CAN3.C.TXD/PDM0.CD.D2/SDC1.AC.DATA1
 PC16/TMR3.B.COMP0/URT4.C.TXD/CAN4.C.TXD/PDM0.D.CLK/SDC1.AC.CLK
 PC17/TMR3.B.CAP0/URT4.C.RXD/CAN4.C.RXD/PDM0.CD.D3/SDC1.AC.DATA0

PC18-PC29

PC18/TMR3.B.COMP1/URT4.C.DE/URT4.C.RTS/CAN4.C.STBY/I2S1.CD.RXD2/SDC1.B.DATA3/ETH0.A.TXD3
 PC19/TMR3.B.CAP1/URT4.C.CTS/SPI1.C.CS3/CAN5.C.STBY/I2S1.CD.RXD3/SDC1.B.DATA2/ETH0.A.TXD2/ADC0.A.DBG
 PC20/TMR3.B.CAP2/URT5.C.CTS/SPI0.C.CS0/CAN5.C.RXD/I2S1.CD.RXD0/SDC1.B.CLK/ETH0.A.TXCK
 PC21/TMR3.B.COMP2/URT5.C.RTS/SPI0.C.SCLK/CAN5.C.TXD/I2S1.CD.RXD1/SDC1.B.CMD/ETH0.A.TXEN
 PC22/TMR2.B.CAPTO/URT5.C.RXD/SPI0.C.MISO/I2S1.CD.BCLK/SDC1.B.DATA1/ETH0.A.TXDO
 PC23/TMR2.B.COMP1/URT5.C.TXD/SPI0.C.MOSI/I2S1.CD.FCLK/SDC1.B.DATA0/ETH0.A.TXD1/SYSCtrl.B.CLK_OBS0
 PC24/TMR2.B.COMP1/URT6.C.TXD/I2C2.C.SCL/SPI1.C.CS2/CAN6.C.TXD/I2S1.CD.TXD0/SDC1.C.CDN/ETH0.A.RXD2
 PC25/TMR2.B.CAP1/URT6.C.RXD/I2C2.C.SDA/SPI1.C.CS1/CAN6.C.RXD/I2S1.CD.TXD1/SDC1.C.VSEL/ETH0.A.RXD3
 PC26/TMR2.B.COMP2/URT6.C.DE/URT6.C.RTS/SPI1.C.CS0/CAN6.C.STBY/I2S1.CD.TXD2/SDC1.C.WP/ETH0.A.RXCK
 PC27/TMR2.B.CAP2/URT6.C.CTS/SPI1.C.SCLK/I2S1.CD.TXD3/SDC1.C.VSEL/ETH0.A.RXDV/SYSCtrl.B.CLK_OBS2
 PC28/TMR3.B.CAP3/URT7.C.DE/URT7.C.RTS/I2C3.C.SDA/SPI1.C.MISO/I2S1.C.MCLK/ETH0.A.RXD1
 PC29/TMR3.B.COMP3/URT7.C.DE/URT7.C.RTS/I2C3.C.SCL/SPI1.C.MOSI/CAN7.C.STBY/I2S1.D.MCLK/ETH0.A.RXD0

PC[0..29] PC[0..29]

04 MCU_03



Sheet: MCU-03
File: MCU-03.kicad_sch

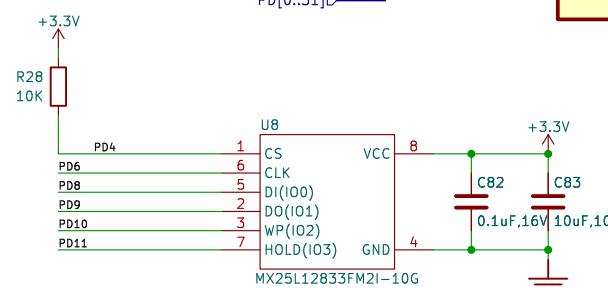
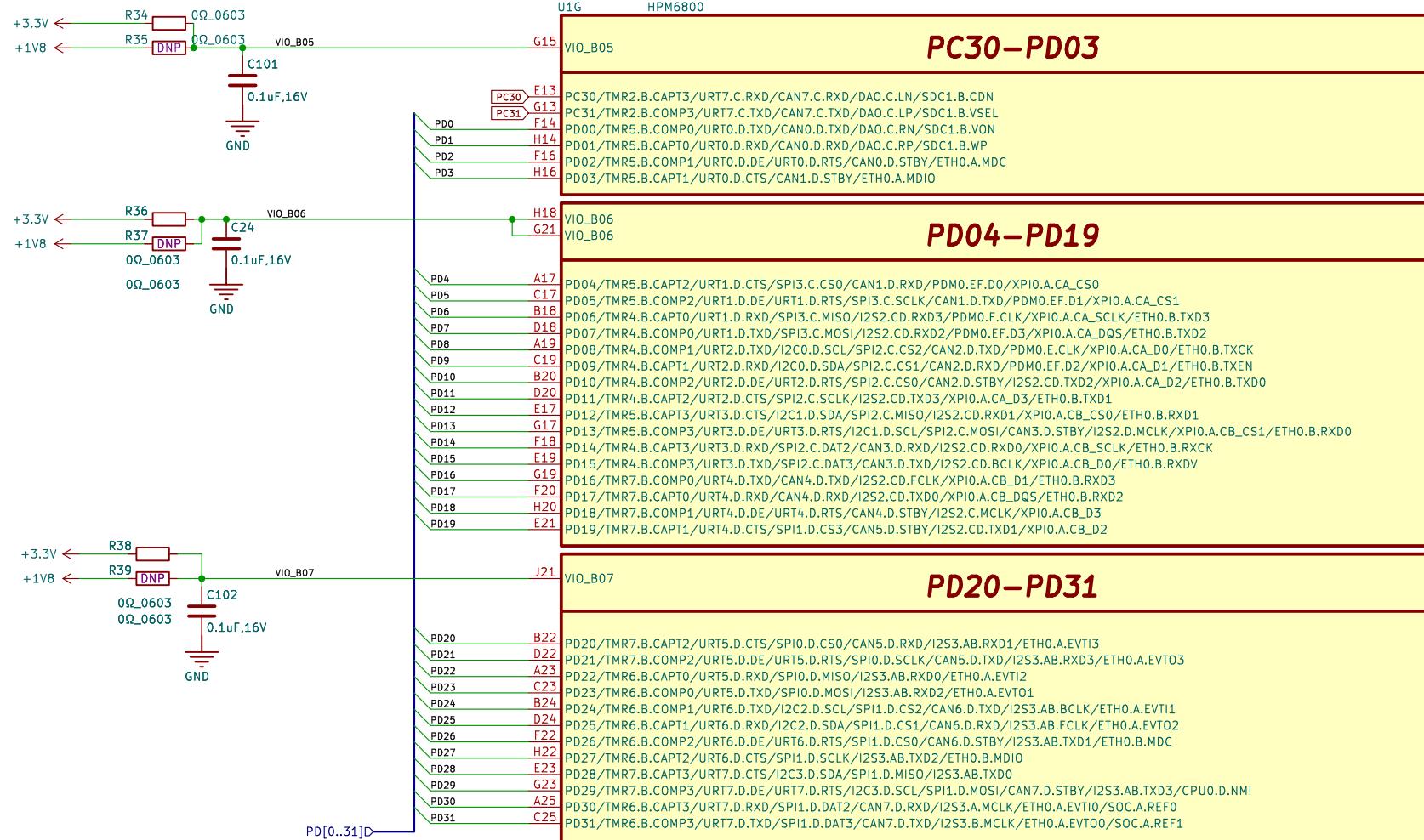
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 5/16



05 MCU_04



Sheet: MCU-04
File: MCU-04.kicad_sch

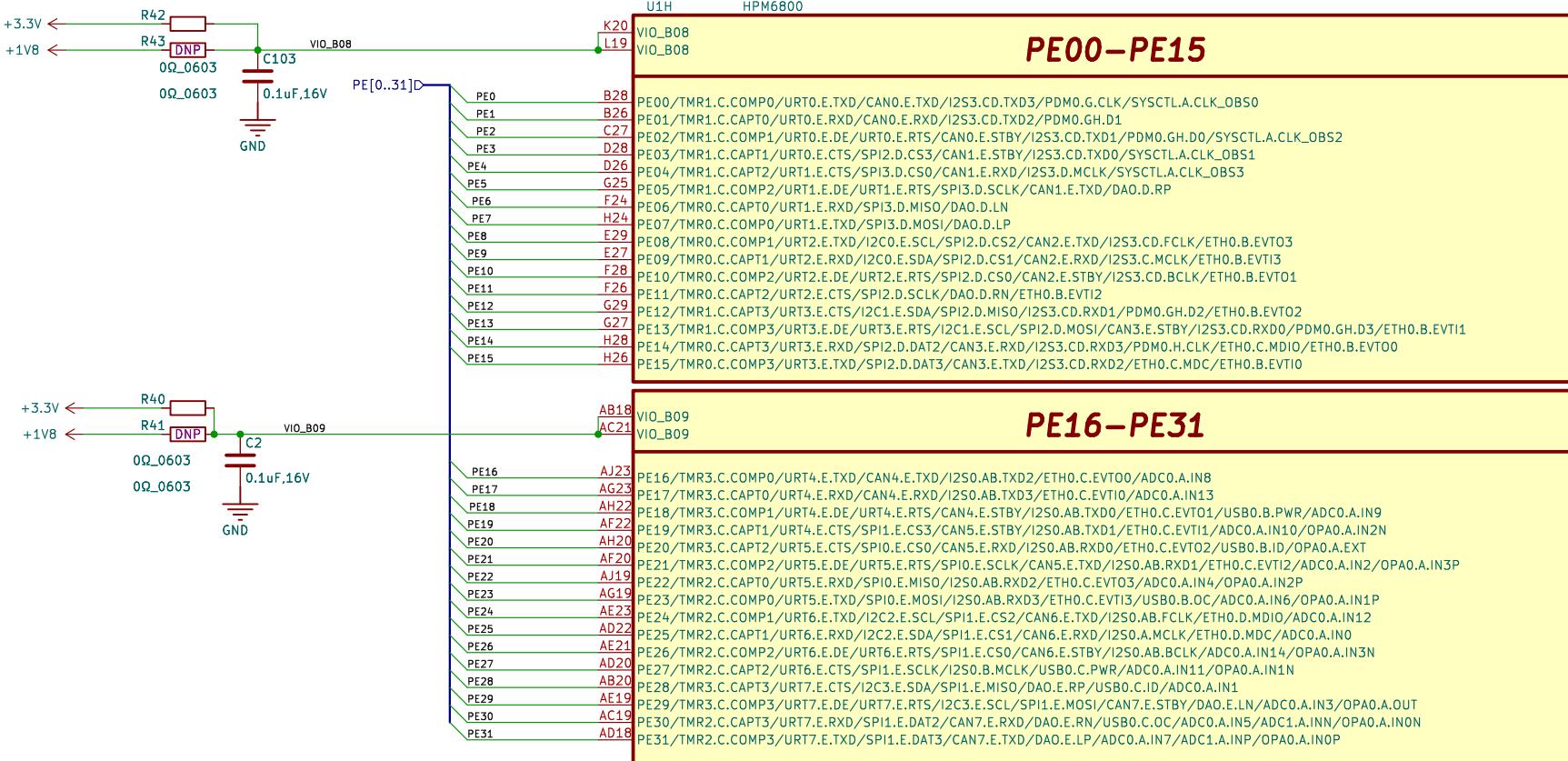
Title:

Size: A4 Date:

Rev:

KiCad E.D.A. kicad 7.0.2

Id: 6/16



06 MCU_05



Sheet: MCU-05
File: MCU-05.kicad_sch

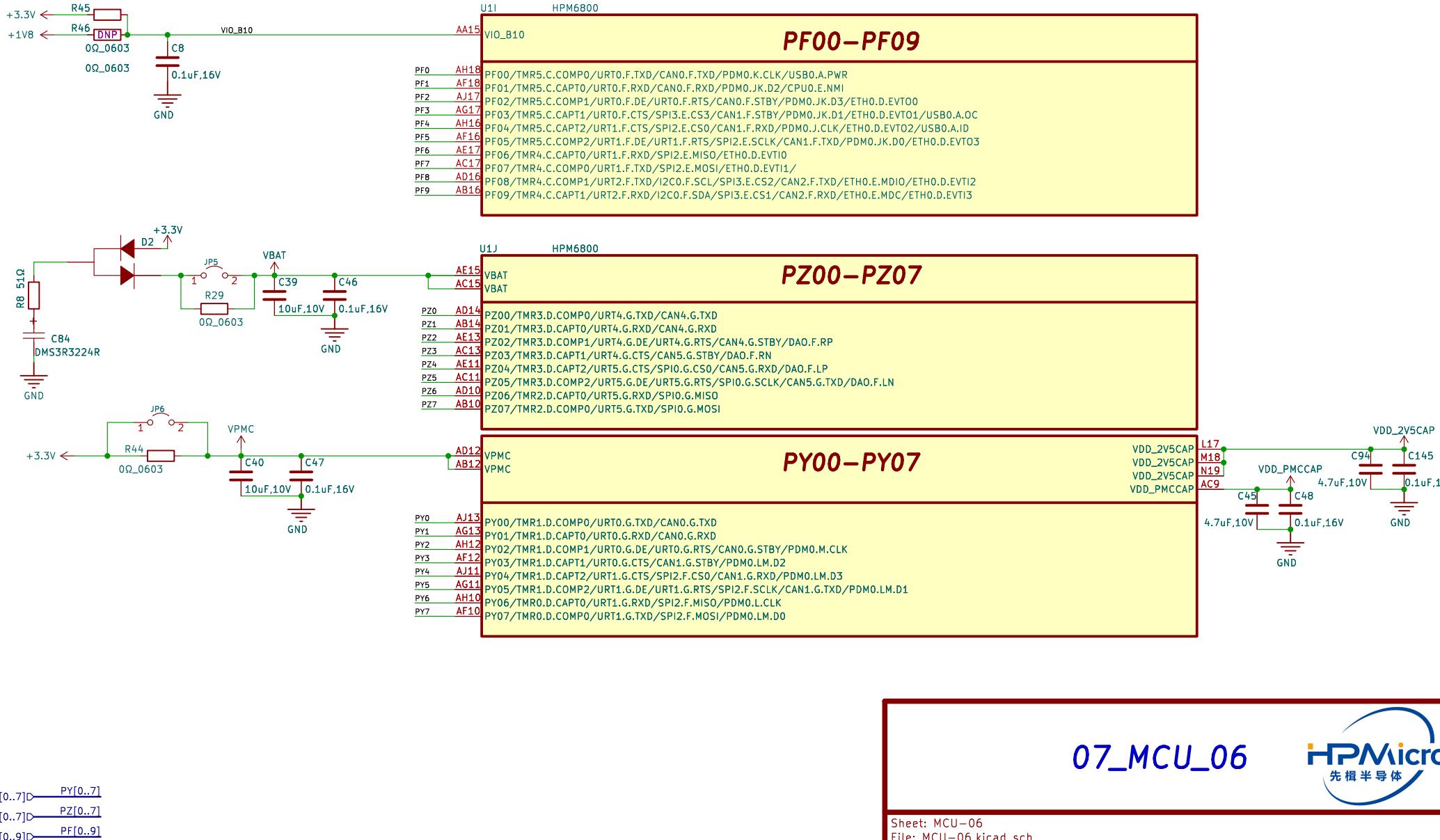
Title:

Size: A4 Date:

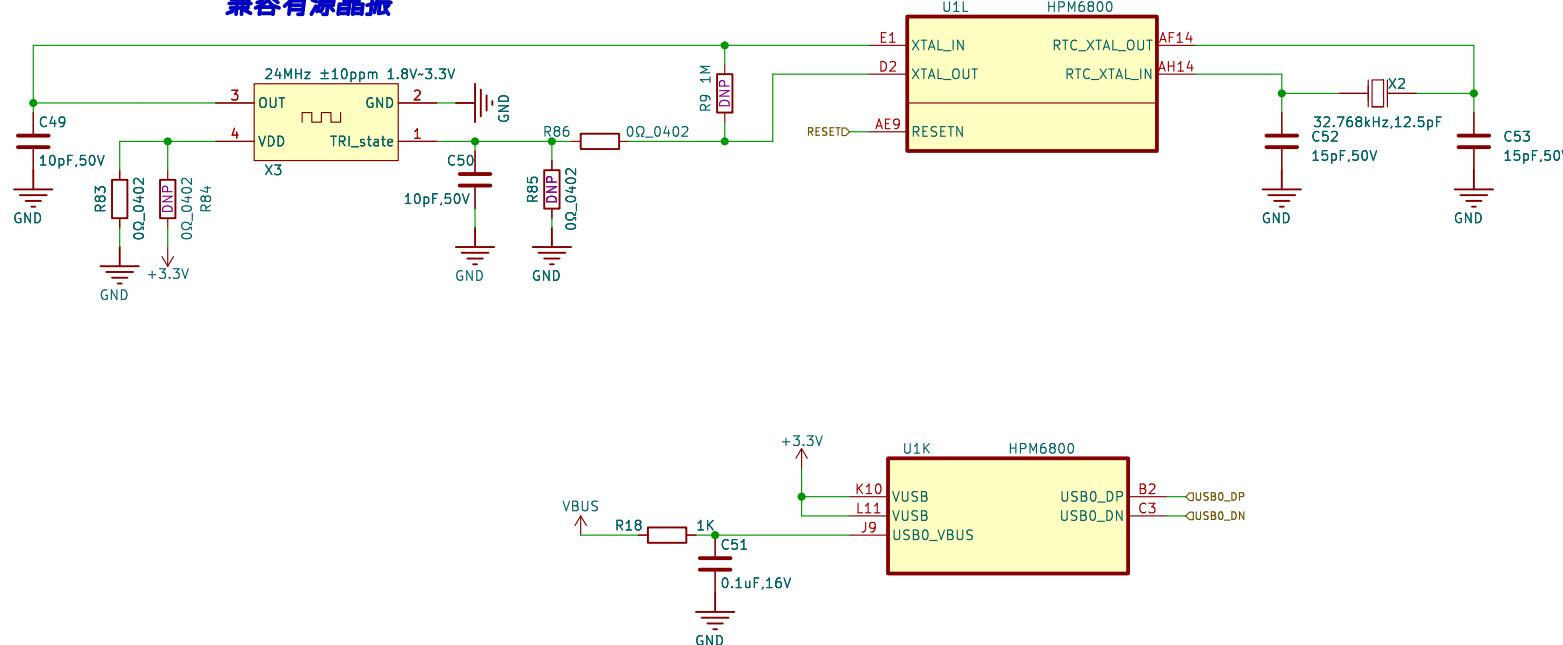
KiCad E.D.A. kicad 7.0.2

Rev:

Id: 7/16



**默认焊接无源晶振
兼容有源晶振**



08 MCU_07



Sheet: MCU-07
File: MCU-07.kicad_sch

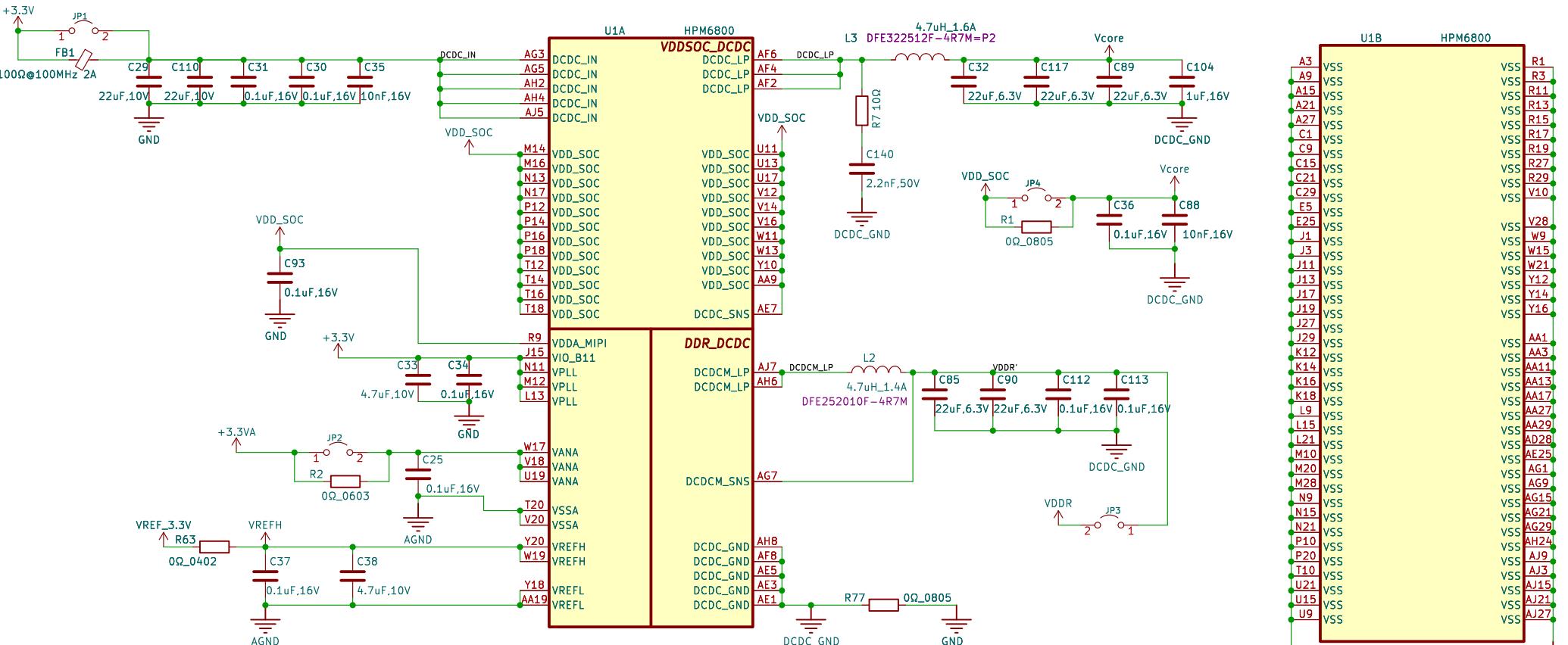
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 9/16



09 MCU 08

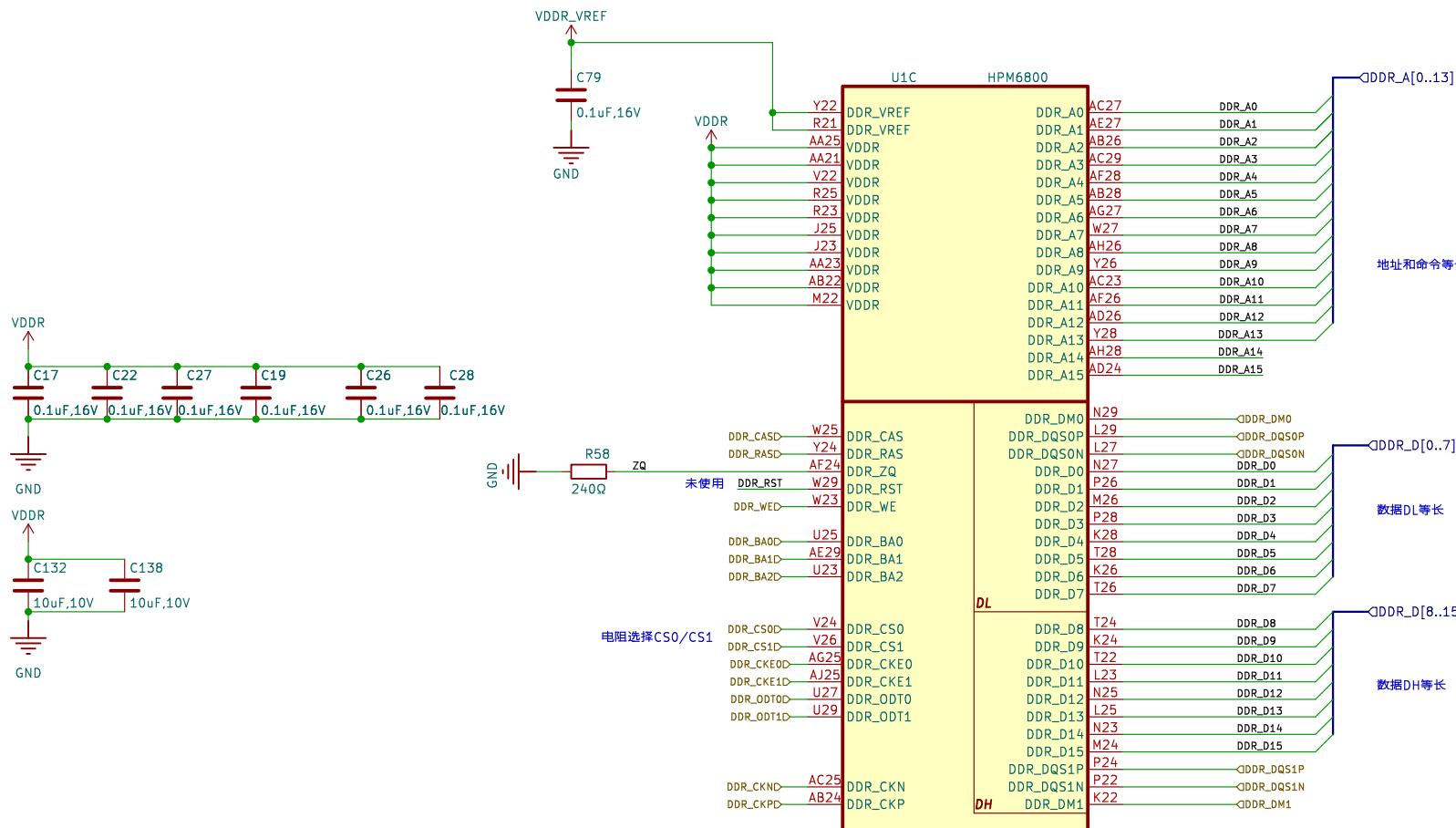


Sheet: MCU-08
File: MCU-08.kicad_sc

Title

Size: A4 Date:

KiCad E.D.A. kicad 7.0



10 MCU_09

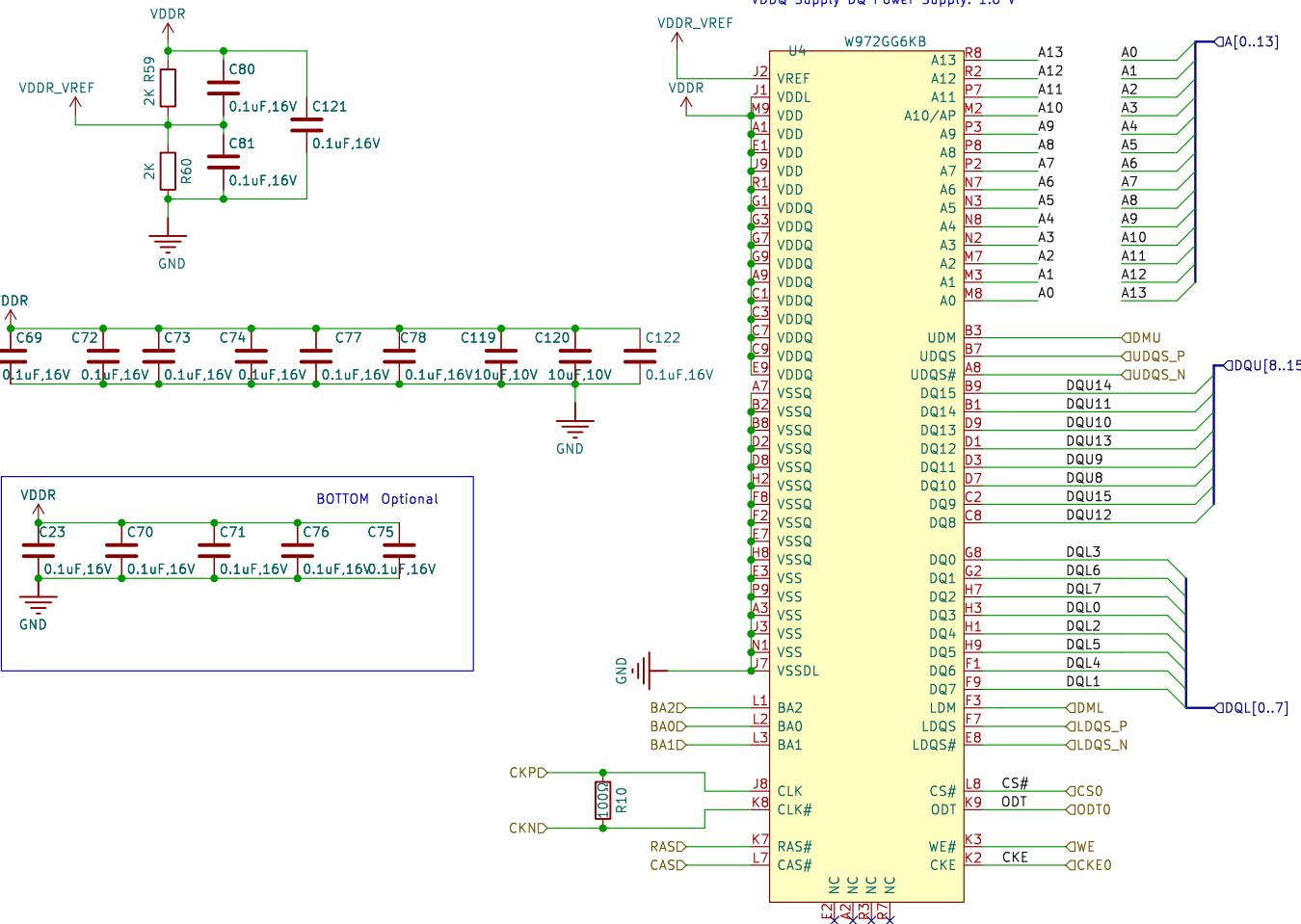


Sheet: MCU_09
File: MCU_09.kicad_sch

Title

Size: A4 Date:

KiCad E.D.A. kicad 7.0



13_DDR2



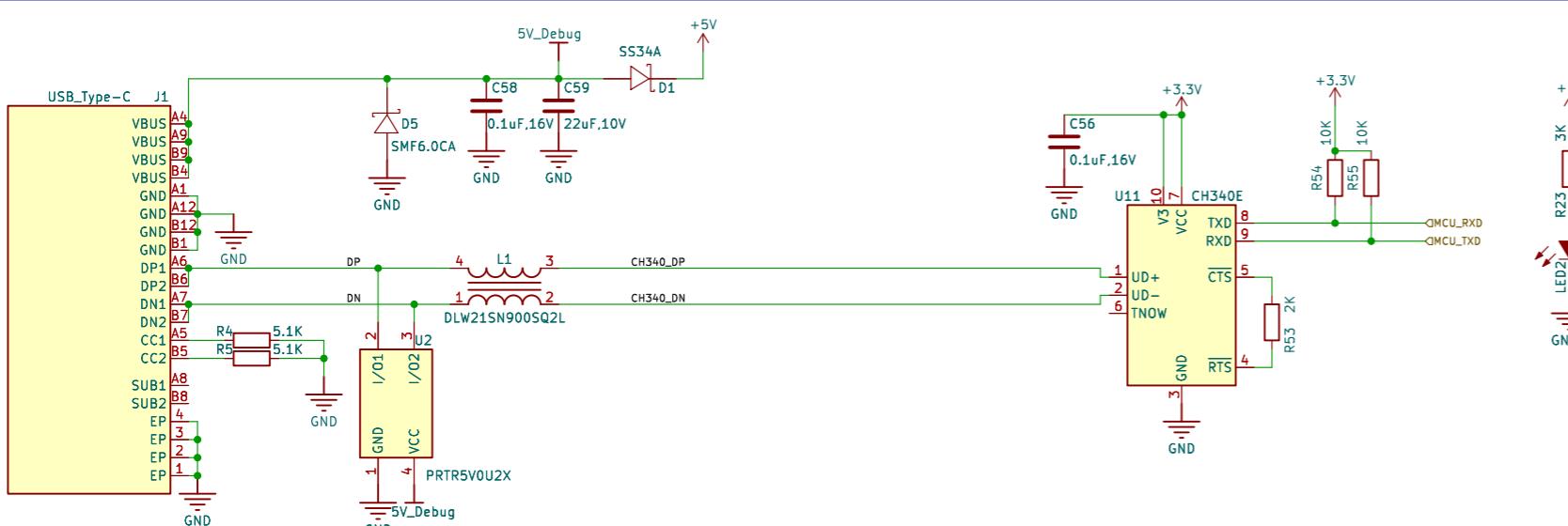
Sheet: DDR2
File: DDR2.kicad_sch

Title:

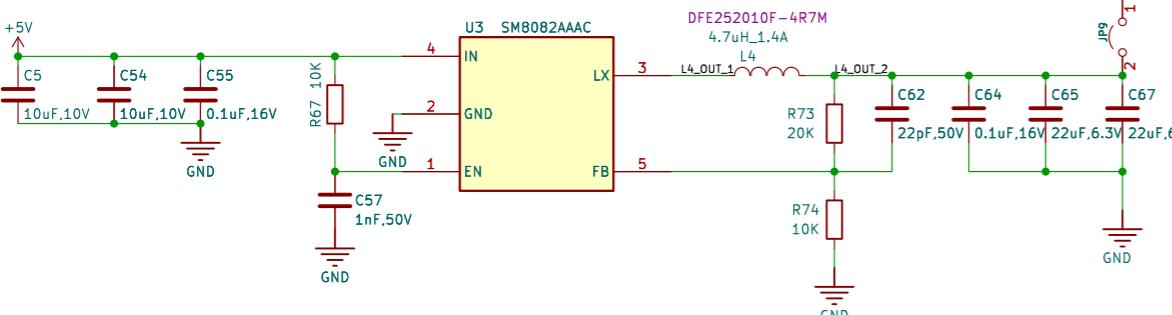
Size: A4 Date:
KiCad E.D.A. kicad 7.0.2

Rev:
Id: 12/16

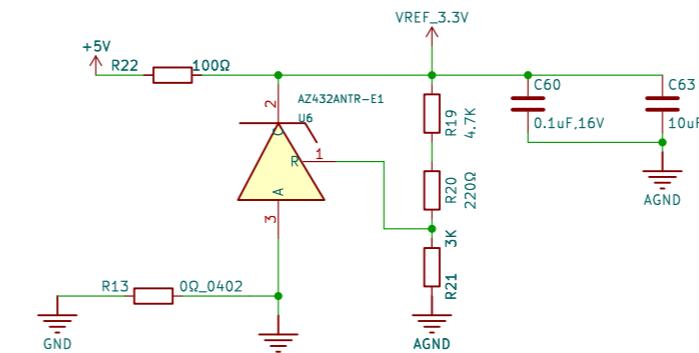
USB_UART



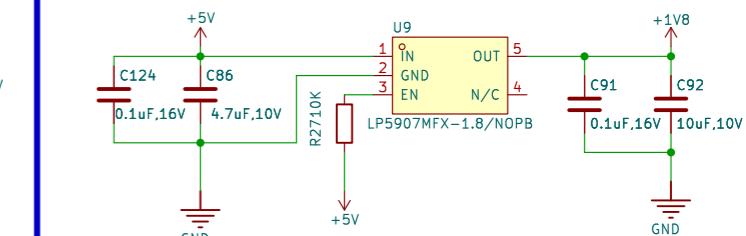
备用 DDR2_1.8V



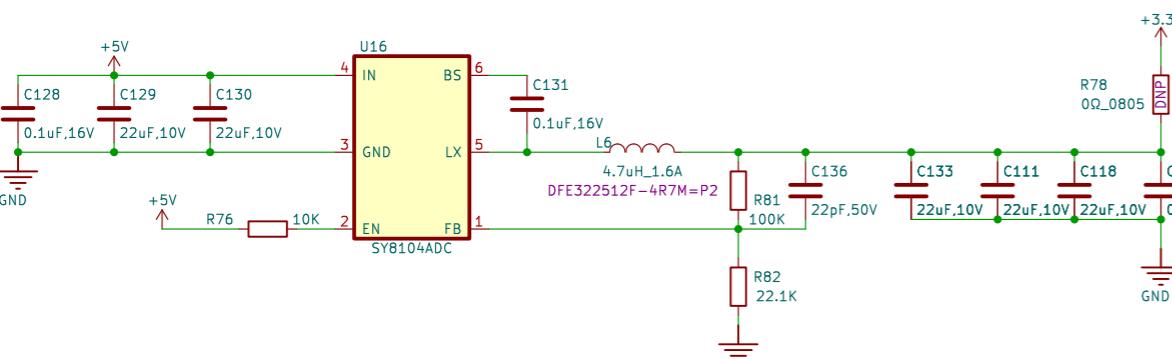
VREFH



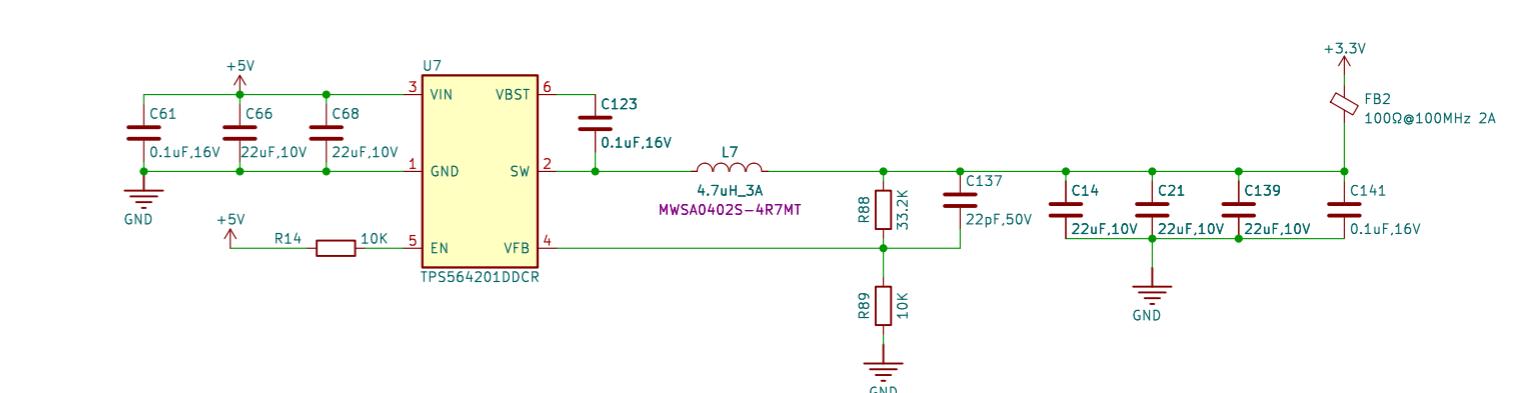
LDO-1V8



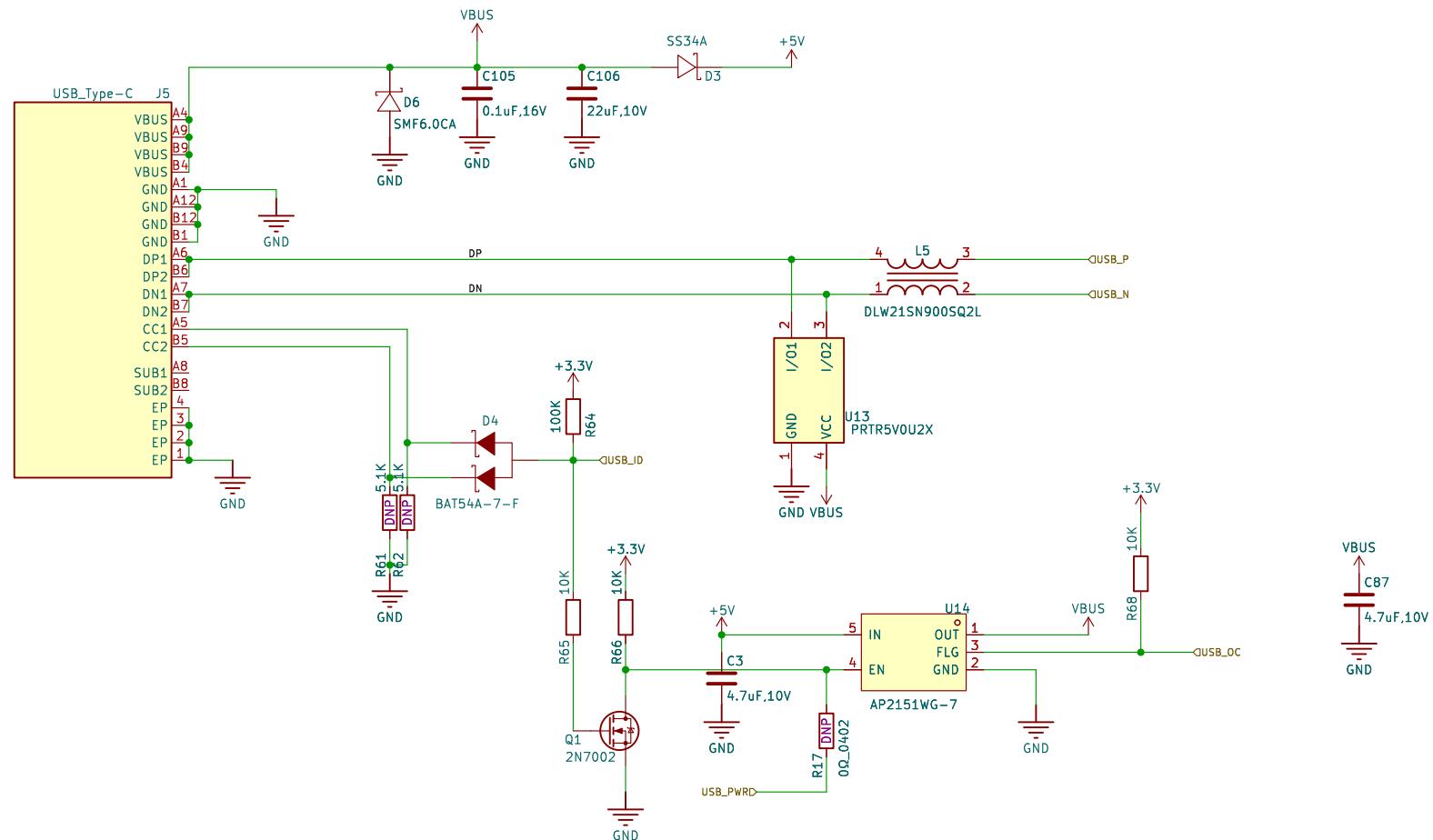
备用



SYSTEM_3V3



12_USB



13_USB_OTG



Sheet: USB_OTG
File: USB_OTG.kicad_sch

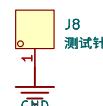
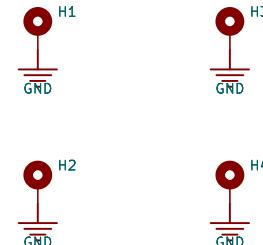
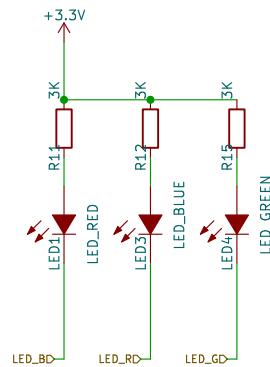
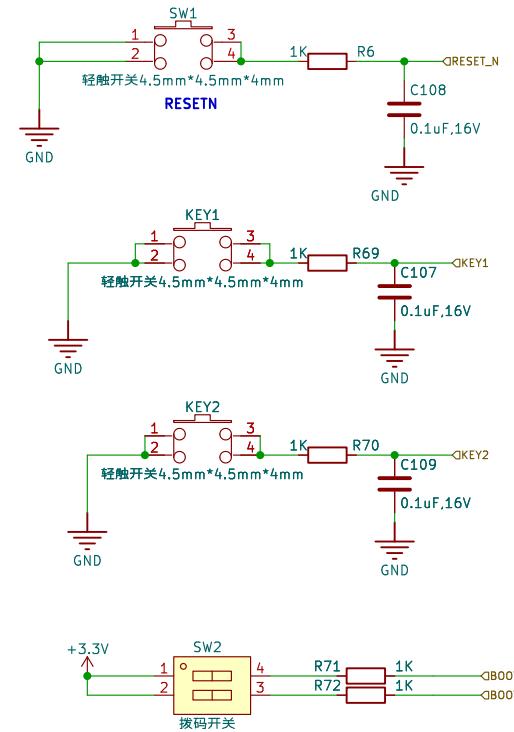
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 14/16



14_Peripheral



Sheet: Peripheral
File: peripheral.kicad_sch

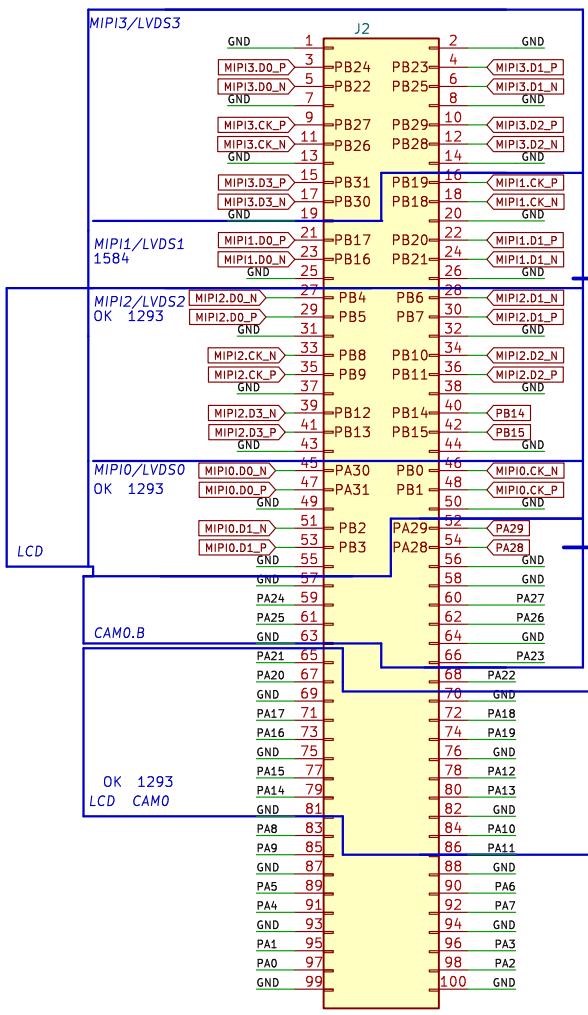
Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 15/16



板对板连接器100P_0.8mm_公头

PA[0..27] D PA[0..27]
PC[0..29] D PC[0..29]
PD[0..31] D PD[0..31]
PE[0..31] D PE[0..31]

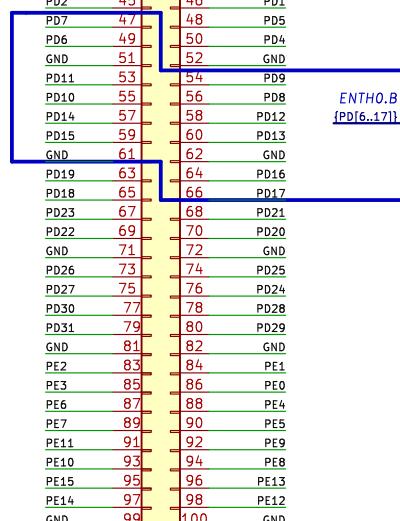
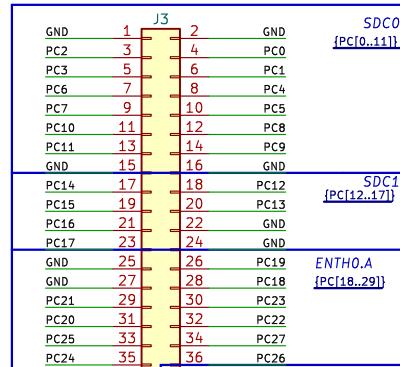
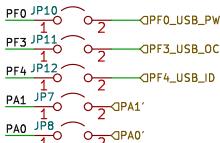
PY[0..7] D PY[0..7]
PZ[0..7] D PZ[0..7]
PF[0..9] D PF[0..9]

{PB30/31_N PB30/31_P PB28/29_N PB28/29_P PB26/27_N PB26/27_P PB23/25_N PB23/25_P PB22/24_N PB22/24_P}

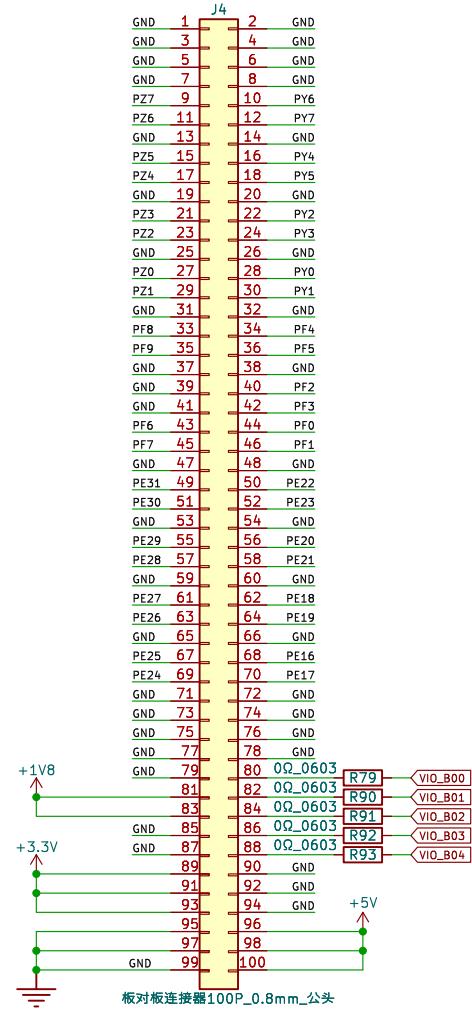
{PB18/19_N PB18/19_P PB16/17_N PB16/17_P PB20/21_N PB20/21_P}

{PB14/15_N PB14/15_P PB10/11_N PB10/11_P PB6/7_N PB6/7_P PB12/13_N PB12/13_P PB8/9_N PB8/9_P PB4/5_N PB4/5_P}

{PB0/1_N PB0/1_P PB2/3_N PB2/3_P PB1/3_N PB1/3_P PB30/31_N PB30/31_P}



板对板连接器100P_0.8mm_公头



15_Connect



Sheet: Connect
File: Connect.kicad_sch

Title:

Size: A4 Date:

KiCad E.D.A. kicad 7.0.2

Rev:

Id: 16/16