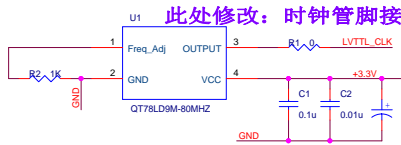
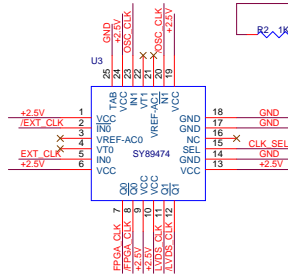
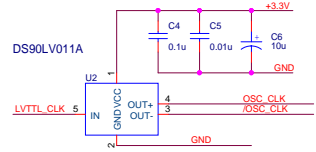
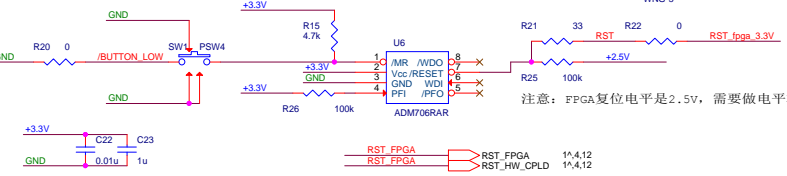
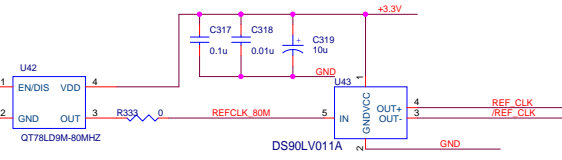
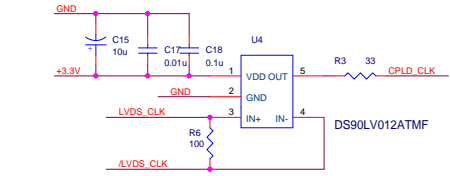
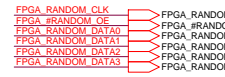
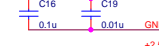
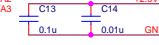
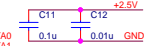
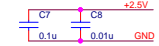
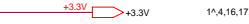
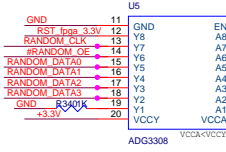
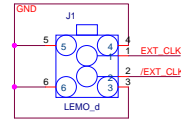
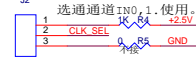




# 时钟

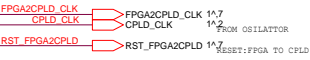


此处R416不接，选通IN1通道。



注意：FPGA复位电平是2.5V，需要做电平转换





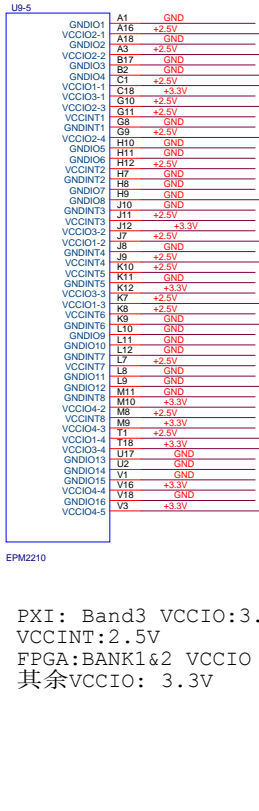
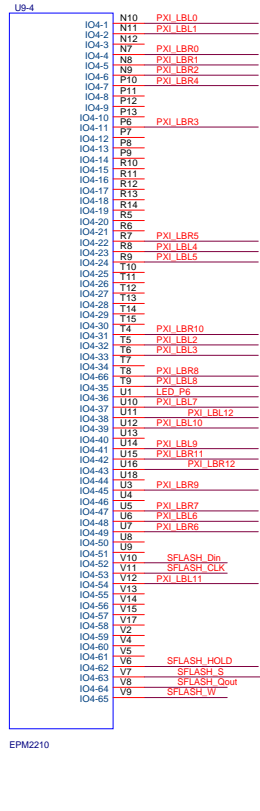
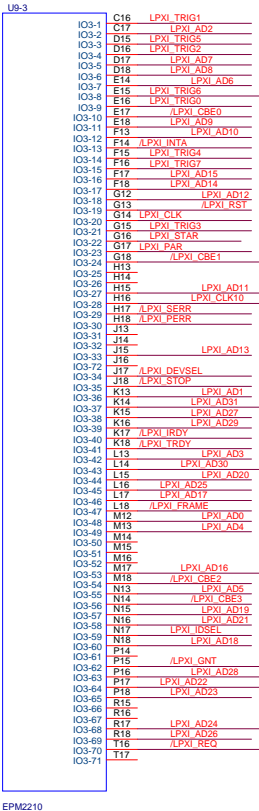
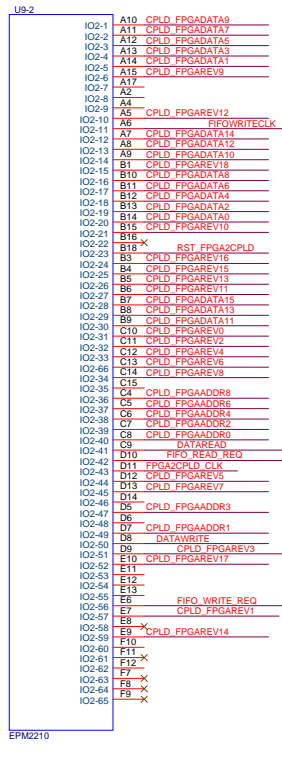
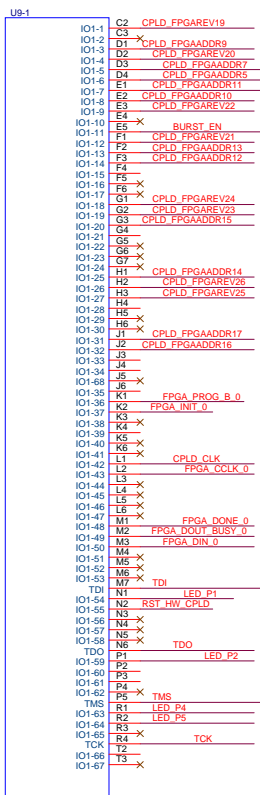
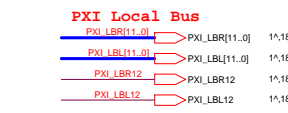
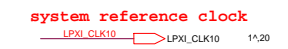
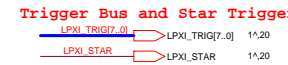
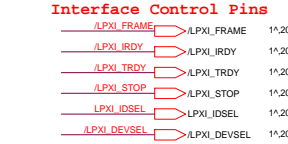
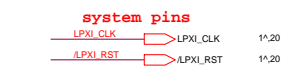
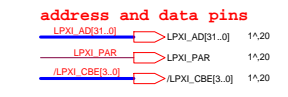
CPLD

CPLD-FPGA CONFIG

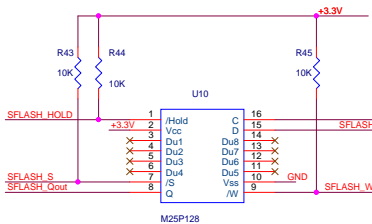
FPGA SLAVE SERIAL Mode



PXI

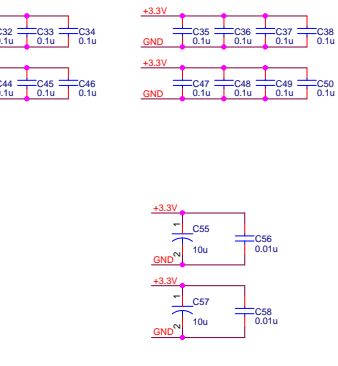
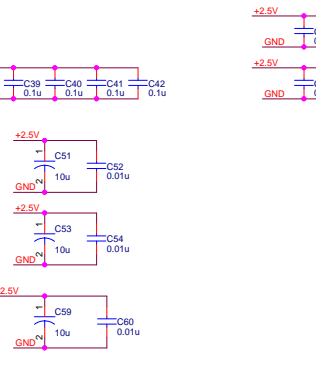
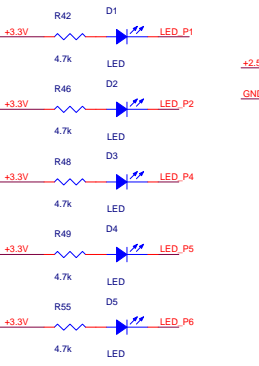
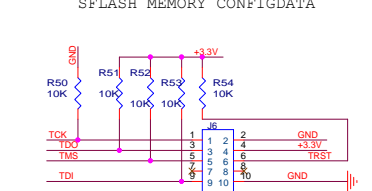


PXI: Band3 VCCIO:3.3V  
VCCINT:2.5V  
FPGA:BANK1&2 VCCIO 2.5V  
其余VCCIO: 3.3V

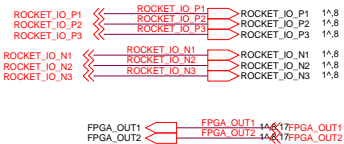


CPLD的JTAG配置电路

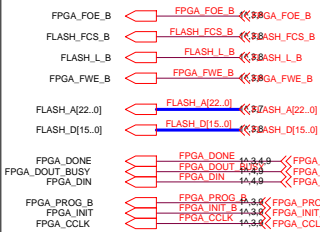
pin#	jtag	
1	TCK	2 GND
3	TDO	4 Vcc
5	TMS	6 Vccio
7	(NC)	8
9	TDI	10 GND



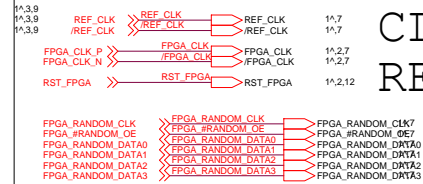
+3.3V +3.3V 1^2,16,17,21  
+2.5V +2.5V 1^2,7,8,9,11,12,13,15,17,21  
GND GND 1^2,3,9,10,11,13,14,15,16,17,18,19,20,21



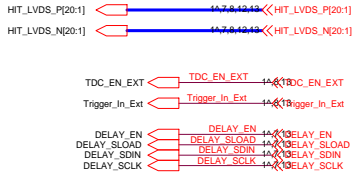
## OUTPUT



## CONFIG



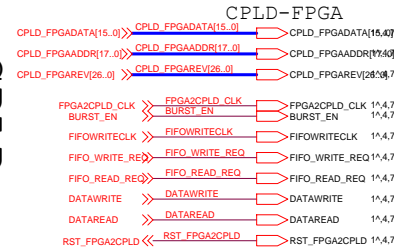
## CLOCK RESET



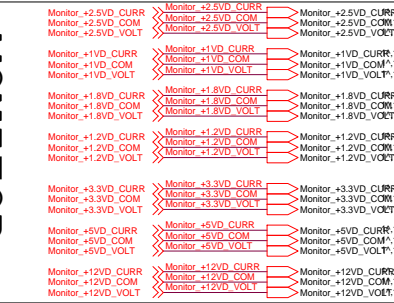
## INPUT

## FPGA

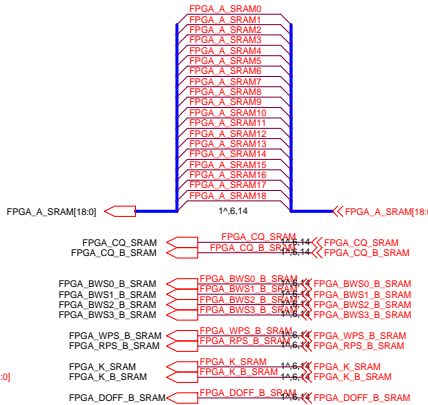
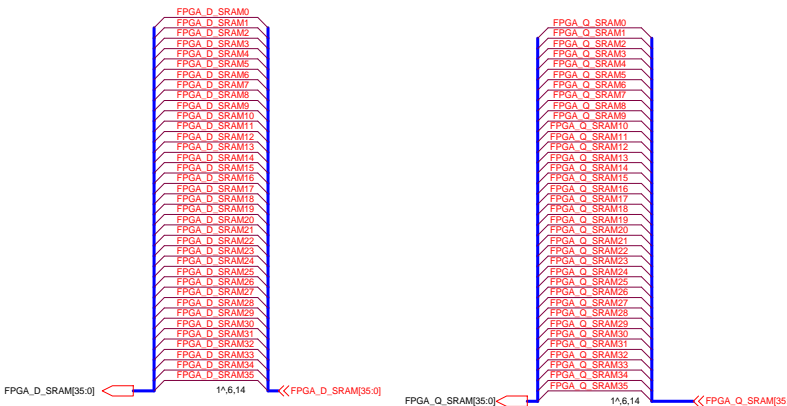
## CPLD



## MONITOR



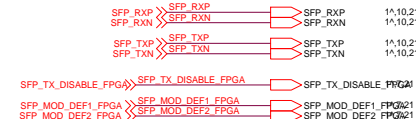
## SRAM



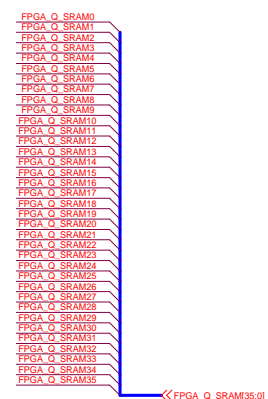
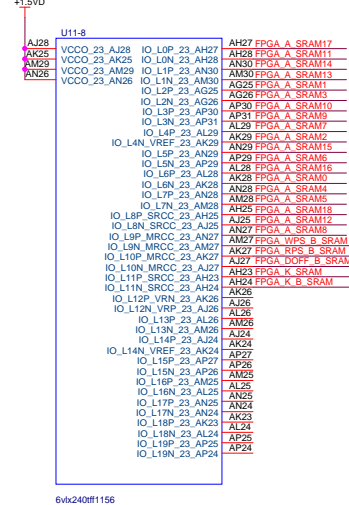
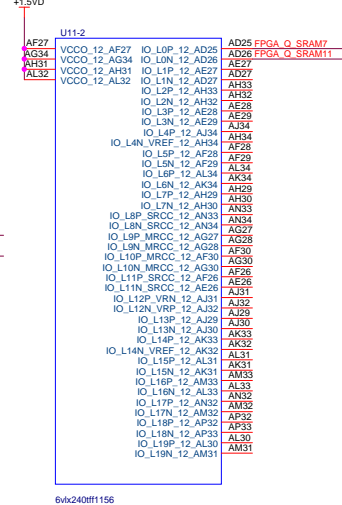
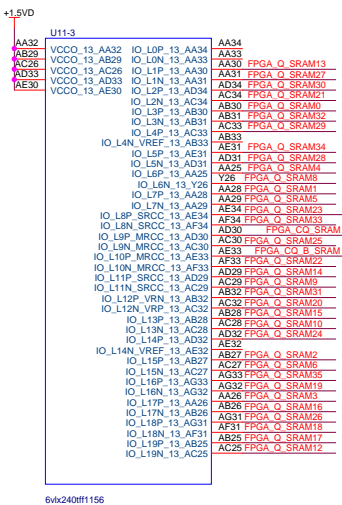
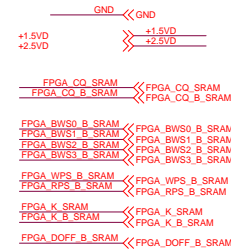
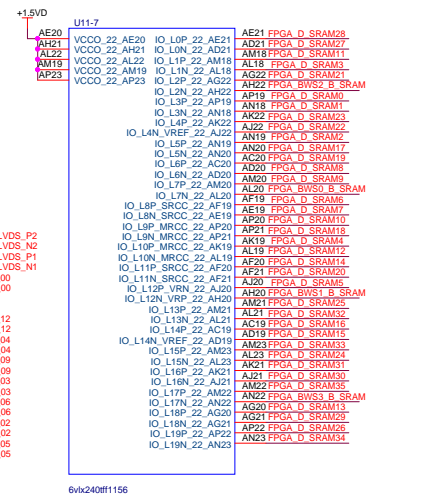
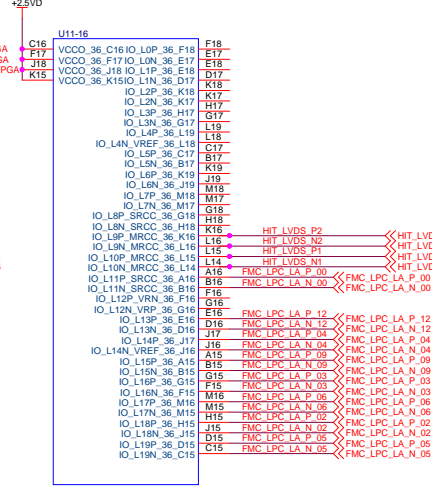
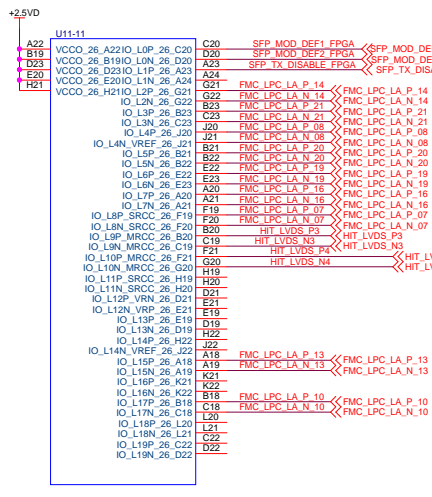
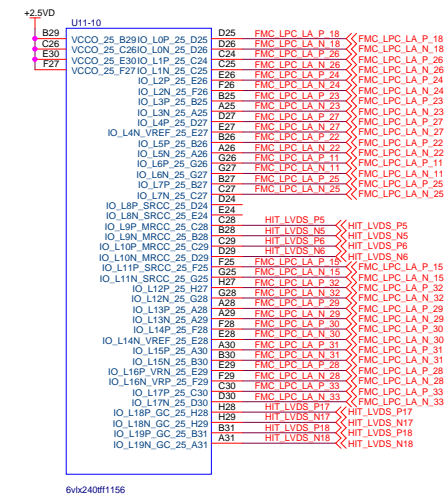
## POWER

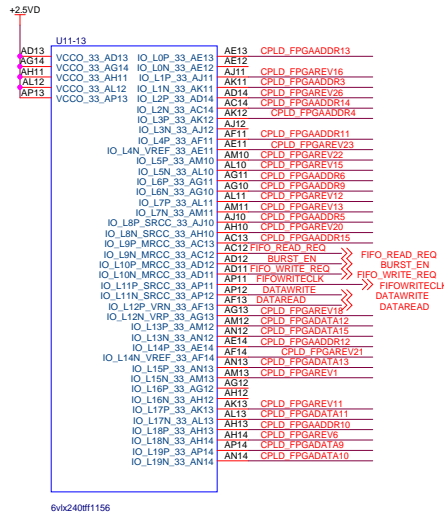
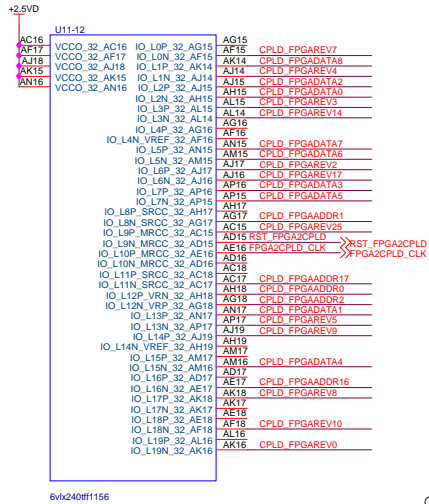
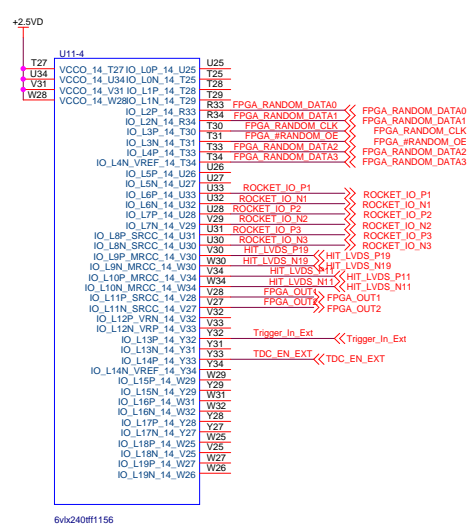
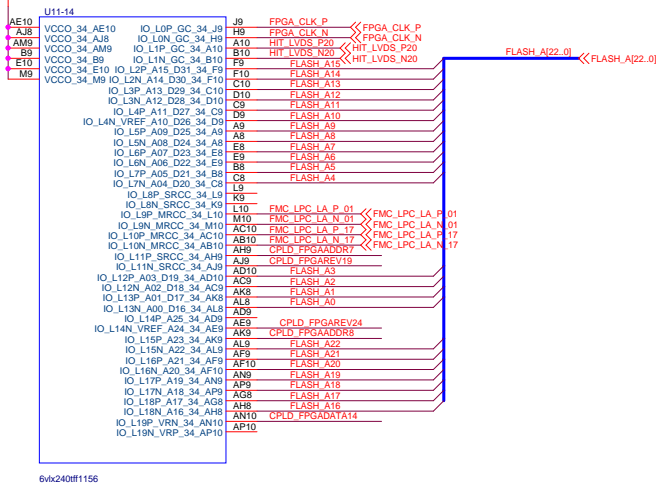


## SFP



# FPGA SRAM





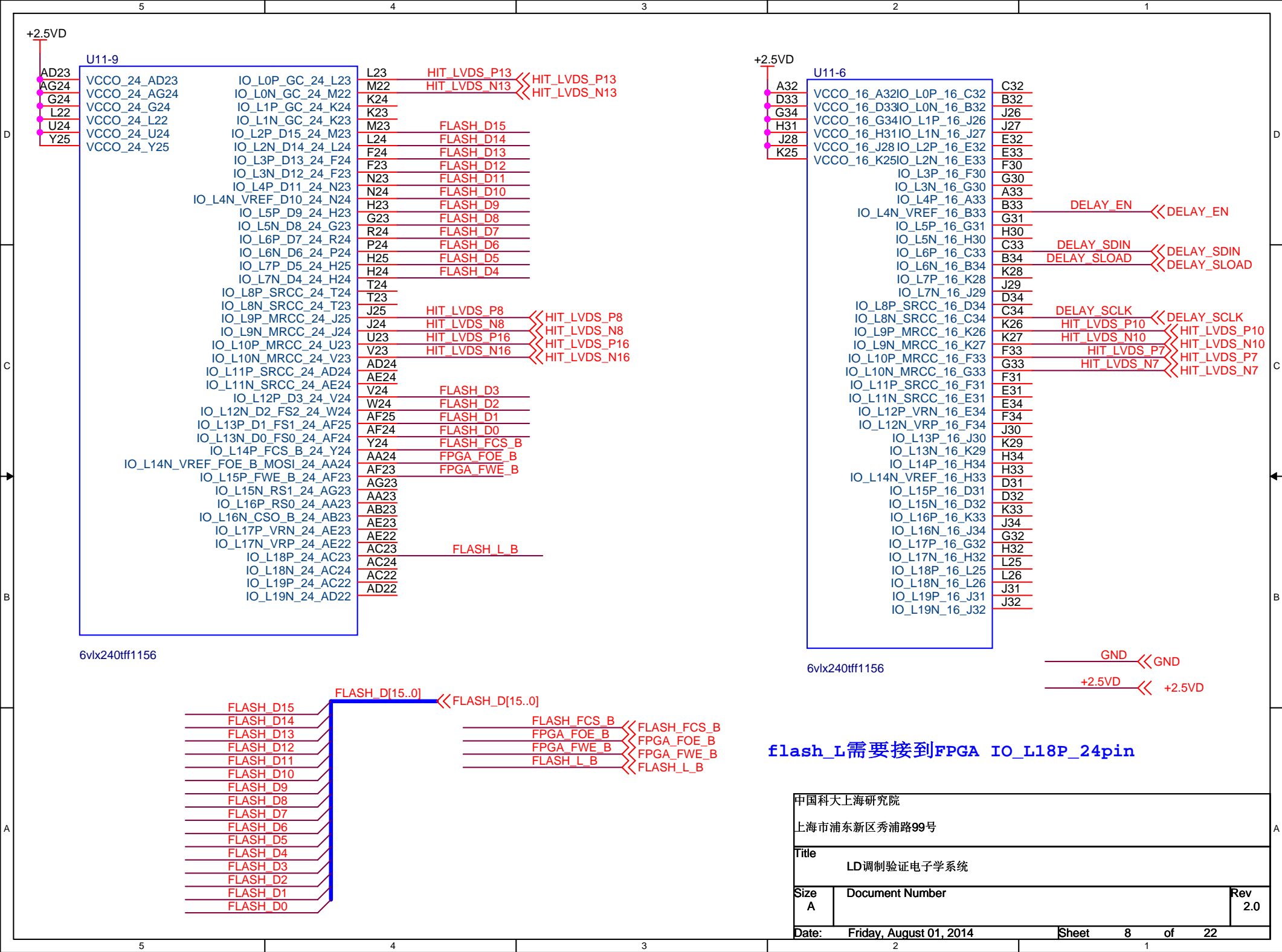
CPLD-FPGA

CPLD\_FPGA[15:0] >> CPLD\_FPGA[15:0]  
CPLD\_FPGA[17:0] >> CPLD\_FPGA[17:0]  
CPLD\_FPGA[26:0] >> CPLD\_FPGA[26:0]

FPGA IO

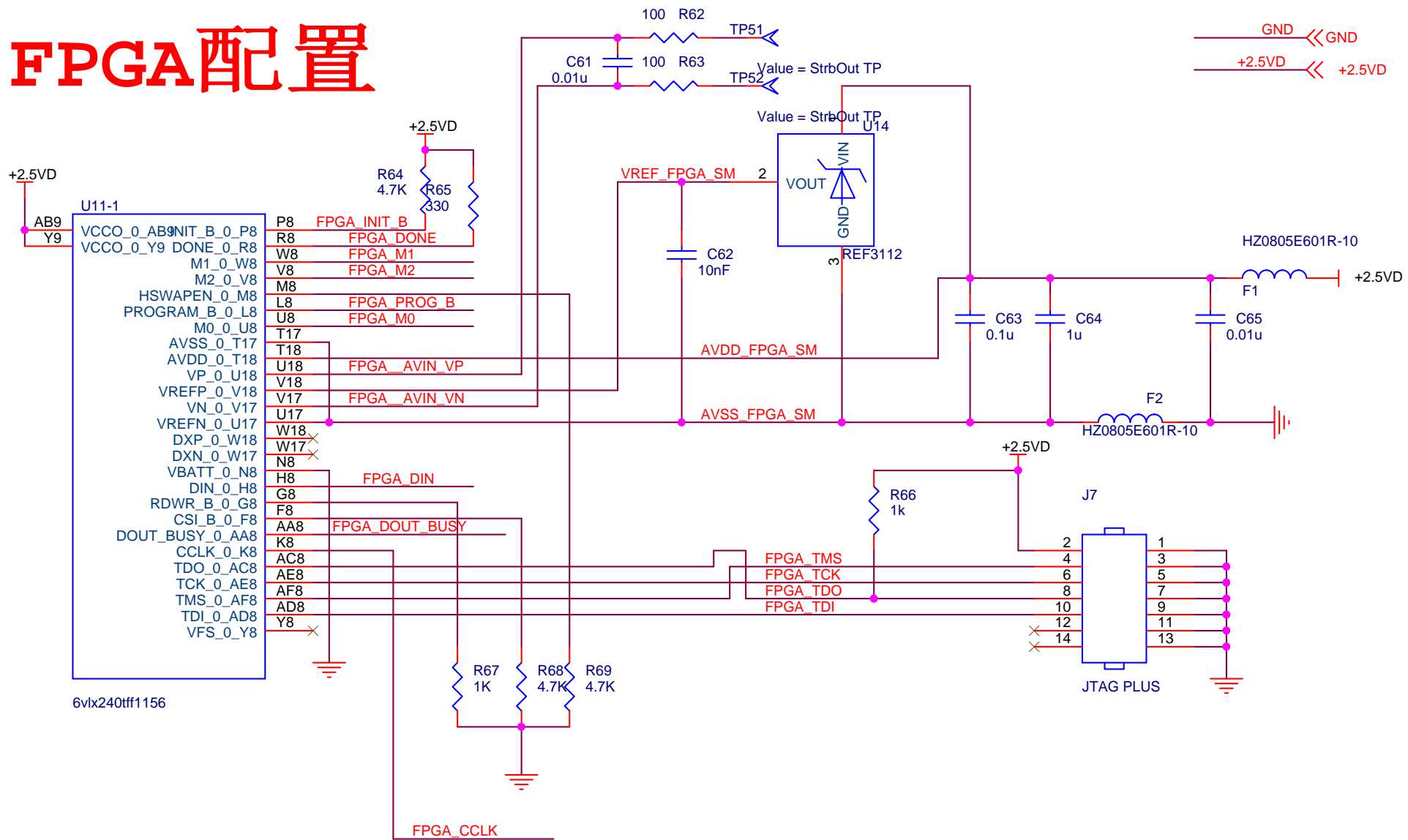
GND << GND  
+2.5VD << +2.5VD





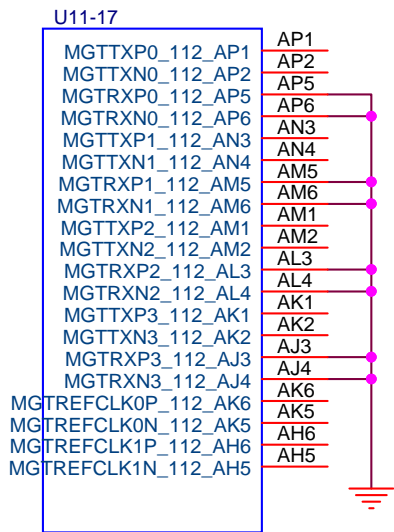


# FPGA配置



FPGA_DONE	FPGA_DONE
FPGA_DOUT_BUSY	FPGA_DOUT_BUSY
FPGA_DIN	FPGA_DIN
FPGA_PROG_B	FPGA_PROG_B
FPGA_INIT_B	FPGA_INIT_B
FPGA_CCLK	FPGA_CCLK
FPGA_M2	FPGA_M2
FPGA_M1	FPGA_M1
FPGA_M0	FPGA_M0

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上海市浦东新区秀浦路99号		
Title		
LD调制验证电子学系统		
Size	Document Number	Rev
A		2.0
Date:	Friday, August 01, 2014	Sheet 9 of 22



# FPGA IO POWER

F22	U11-26	A1
F32	GND_F22	A2
G1	GND_F32	A5
G5	GND_G1	A6
G9	GND_G5	A6
G9	GND_G7	A7
G19	GND_G9	A7
G19	GND_G19	A27
H4	GND_H4	A34
H16	GND_H7	A41
H16	GND_H16	A45
H26	GND_H26	A47
J2	GND_J2	A49
J5	GND_J5	A49
J7	GND_J7	A49
J8	GND_J8	A49
J13	GND_J13	A49
J33	GND_J33	A49
K3	GND_K3	A49
K4	GND_K4	A49
K7	GND_K7	A49
K20	GND_K20	A49
K30	GND_K30	A49
L1	GND_L1	A49
L5	GND_L5	A49
L7	GND_L7	A49
L27	GND_L27	A49
M4	GND_M4	A49
M7	GND_M7	A49
M14	GND_M14	A49
M20	GND_M20	A49
M24	GND_M24	A49
N1	GND_N1	A49
N2	GND_N2	A49
N5	GND_N5	A49
N7	GND_N7	A49
N9	GND_N9	A49
N11	GND_N11	A49
N13	GND_N13	A49
N15	GND_N15	A49
N17	GND_N17	A49
N19	GND_N19	A49
N21	GND_N21	A49
N31	GND_N31	A49
P3	GND_P3	A49
P7	GND_P7	A49
P10	GND_P10	A49
P12	GND_P12	A49
P14	GND_P14	A49
P16	GND_P16	A49
P18	GND_P18	A49
P20	GND_P20	A49
P22	GND_P22	A49
P28	GND_P28	A49
R1	GND_R1	A49
R5	GND_R5	A49
R7	GND_R7	A49
R9	GND_R9	A49
R11	GND_R11	A49
R13	GND_R13	A49
R15	GND_R15	A49
R17	GND_R17	A49
R19	GND_R19	A49
R21	GND_R21	A49
R23	GND_R23	A49
R25	GND_R25	A49
T4	GND_T4	A49
T7	GND_T7	A49
T10	GND_T10	A49
T12	GND_T12	A49
T16	GND_T16	A49
T20	GND_T20	A49
T22	GND_T22	A49
T32	GND_T32	A49
U1	GND_U1	A49
U2	GND_U2	A49
U5	GND_U5	A49
U7	GND_U7	A49
U9	GND_U9	A49
U11	GND_U11	A49
U13	GND_U13	A49
U15	GND_U15	A49
U19	GND_U19	A49
U21	GND_U21	A49
U29	GND_U29	A49
V3	GND_V3	A49
V7	GND_V7	A49
V10	GND_V10	A49
V12	GND_V12	A49
V14	GND_V14	A49
V16	GND_V16	A49
V20	GND_V20	A49
V22	GND_V22	A49
V26	GND_V26	A49
W1	GND_W1	A49
W5	GND_W5	A49
W7	GND_W7	A49
W11	GND_W11	A49
W15	GND_W15	A49
W19	GND_W19	A49
W21	GND_W21	A49
W23	GND_W23	A49
W33	GND_W33	A49
Y4	GND_Y4	A49
Y6	GND_Y6	A49
Y7	GND_Y7	A49
Y10	GND_Y10	A49
Y14	GND_Y14	A49
Y16	GND_Y16	A49
Y18	GND_Y18	A49
Y20	GND_Y20	A49
Y22	GND_Y22	A49
Y30	GND_Y30	A49
Y8	GND_Y8	A49
F12	GND_F12	A49

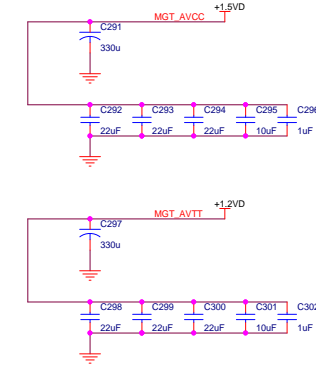
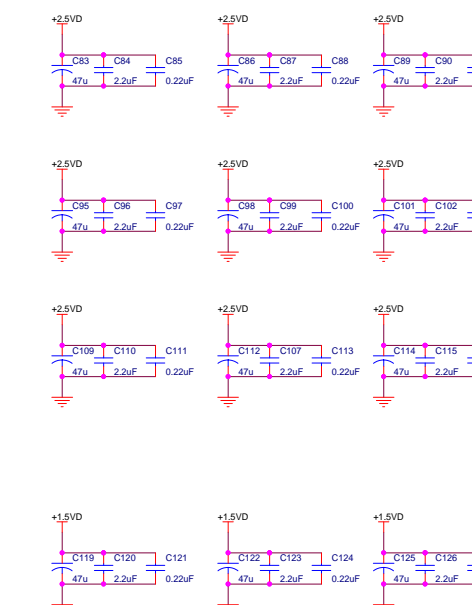
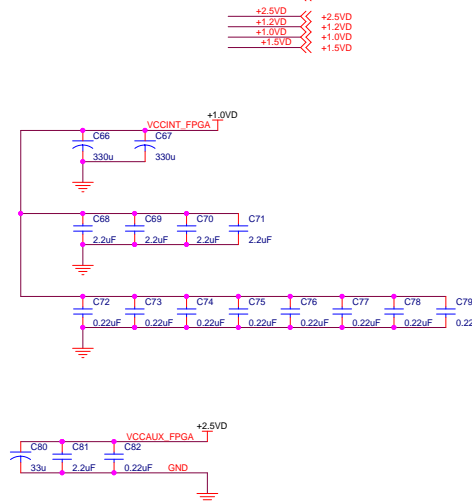
U11-27	AA10
VCCAUX_AA10	AA22
VCCAUX_AA22	N10
VCCAUX_N10	N22
VCCAUX_N22	P9
VCCAUX_P9	P23
VCCAUX_P23	R22
VCCAUX_R22	T9
VCCAUX_T9	U22
VCCAUX_U22	V9
VCCAUX_V9	W10
VCCAUX_W10	W22
VCCAUX_W22	Y23
VCCAUX_Y23	

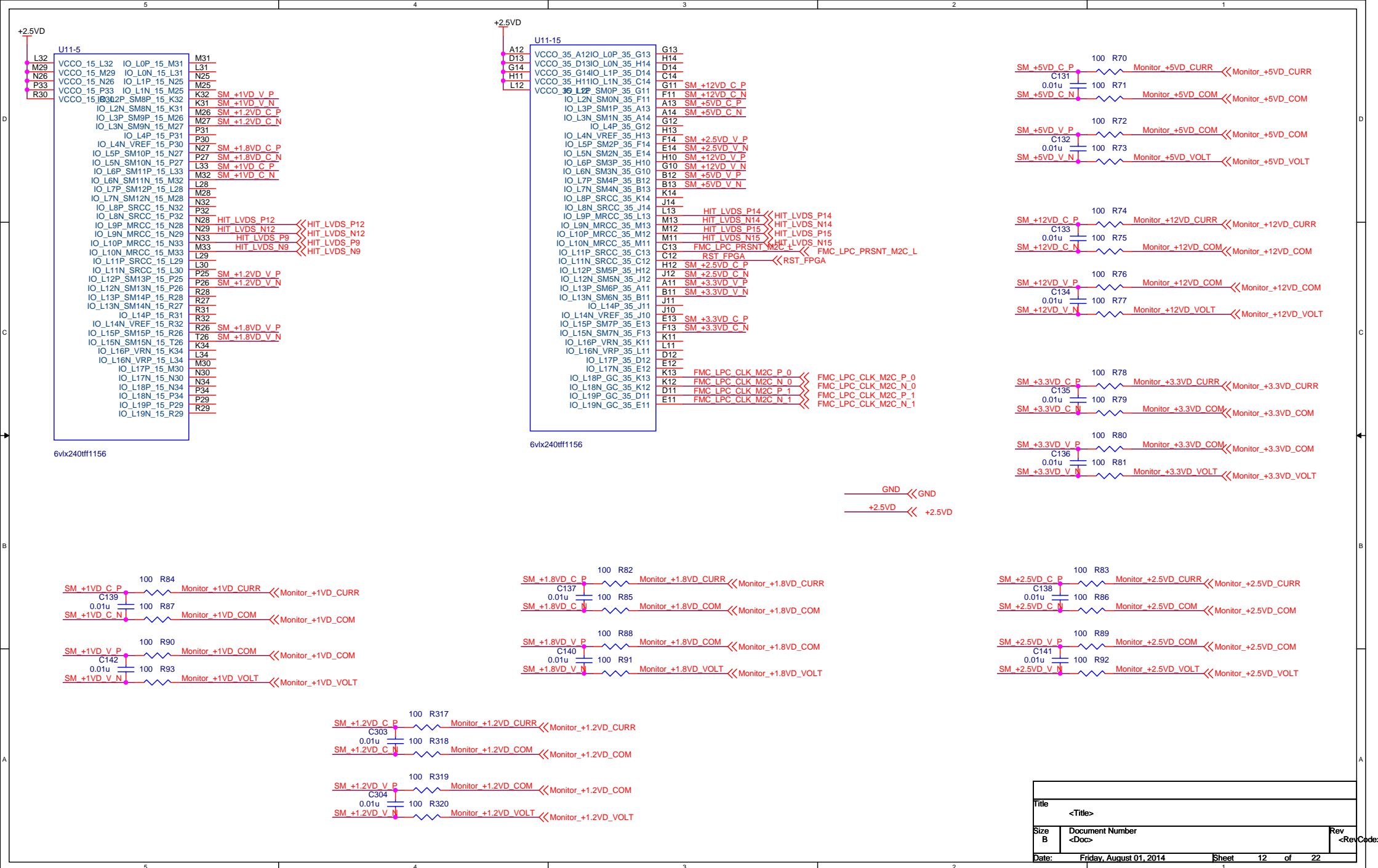
U11-28	AA12
VCCINT_AA12	AA14
VCCINT_AA14	AA16
VCCINT_AA16	AA18
VCCINT_AA18	AA20
VCCINT_AA20	AB11
VCCINT_AB11	AB13
VCCINT_AB13	AB15
VCCINT_AB15	AB17
VCCINT_AB17	AB19
VCCINT_AB19	AB21
VCCINT_AB21	M19
VCCINT_M19	M21
VCCINT_M21	N12
VCCINT_N12	N14
VCCINT_N14	N16
VCCINT_N16	N18
VCCINT_N18	N20
VCCINT_N20	P11
VCCINT_P11	P13
VCCINT_P13	P15
VCCINT_P15	P17
VCCINT_P17	P19
VCCINT_P19	P21
VCCINT_P21	R10
VCCINT_R10	R12
VCCINT_R12	R14
VCCINT_R14	R16
VCCINT_R16	R18
VCCINT_R18	R20
VCCINT_R20	T11
VCCINT_T11	T13
VCCINT_T13	T15
VCCINT_T15	T17
VCCINT_T17	U10
VCCINT_U10	U12
VCCINT_U12	U14
VCCINT_U14	U16
VCCINT_U16	U18
VCCINT_U18	U20
VCCINT_U20	V11
VCCINT_V11	V13
VCCINT_V13	V15
VCCINT_V15	V17
VCCINT_V17	V19
VCCINT_V19	V21
VCCINT_V21	W12
VCCINT_W12	W14
VCCINT_W14	W16
VCCINT_W16	W18
VCCINT_W18	W20
VCCINT_W20	Y11
VCCINT_Y11	Y13
VCCINT_Y13	Y15
VCCINT_Y15	Y17
VCCINT_Y17	Y19
VCCINT_Y19	Y21
VCCINT_Y21	

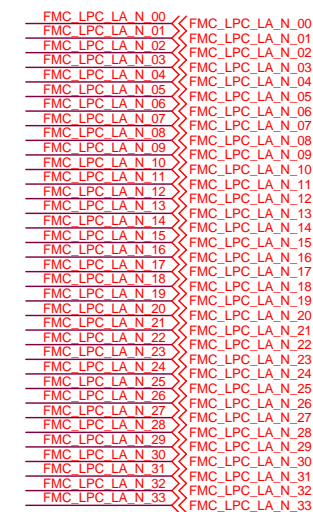
U11-22	AA6
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MGTAVCC_N_L6	AA6
MGTAVCC_N_N6	AA6
MGTAVCC_N_P6	AA6
MGTAVCC_N_R6	AA6
MGTAVCC_N_S6	AA6
MGTAVCC_N_W6	AA6
MGTAVCC_N_Y6	AA6

U11-24	AA2
MGTAVTT_N_C2	AA2
MGTAVTT_N_D2	AA2
MGTAVTT_N_E2	AA2
MGTAVTT_N_F2	AA2
MGTAVTT_N_G2	AA2
MGTAVTT_N_H2	AA2
MGTAVTT_N_I2	AA2
MGTAVTT_N_J2	AA2
MGTAVTT_N_K2	AA2
MGTAVTT_N_L2	AA2
MGTAVTT_N_M2	AA2

U11-25	AA2
MGTAVTT_N_C2	AA2
MGTAVTT_N_D2	AA2
MGTAVTT_N_E2	AA2
MGTAVTT_N_F2	AA2
MGTAVTT_N_G2	AA2
MGTAVTT_N_H2	AA2
MGTAVTT_N_I2	AA2
MGTAVTT_N_J2	AA2
MGTAVTT_N_K2	AA2
MGTAVTT_N_L2	AA2
MGTAVTT_N_M2	AA2

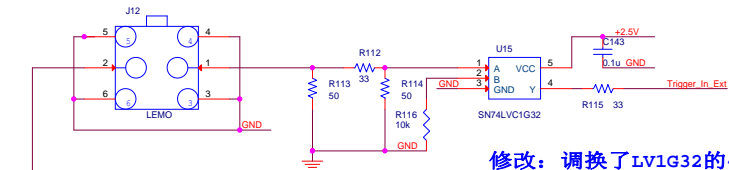
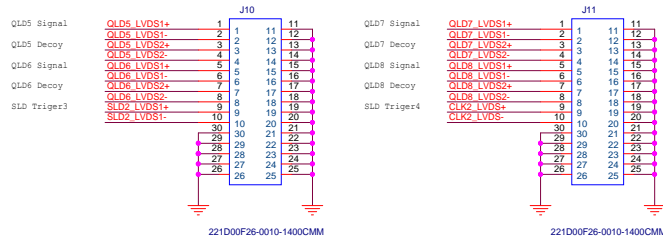
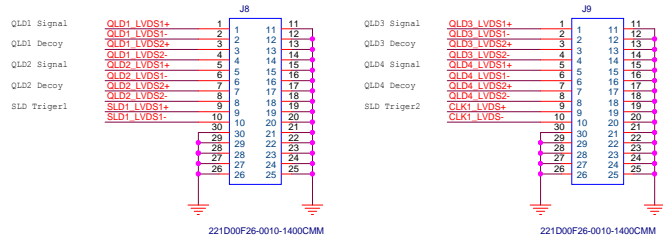




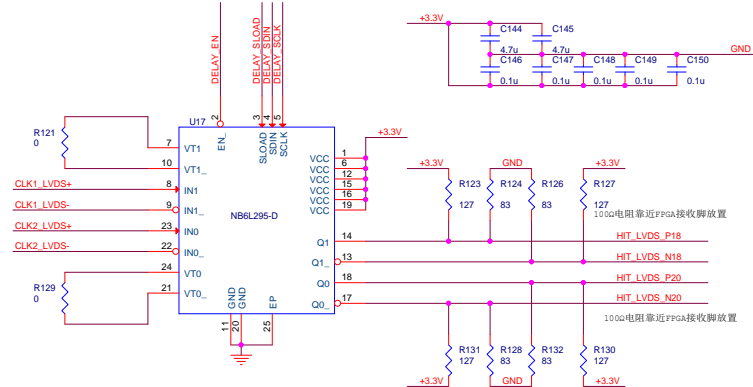
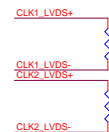
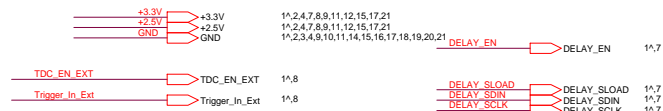


Rev	<RevCode:
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# INPUT CH1-16



修改: 调换了lv1g32的4,5管脚





这两个电阻精度要高<1%

SRAM

CY7C1565V18-400BZXC

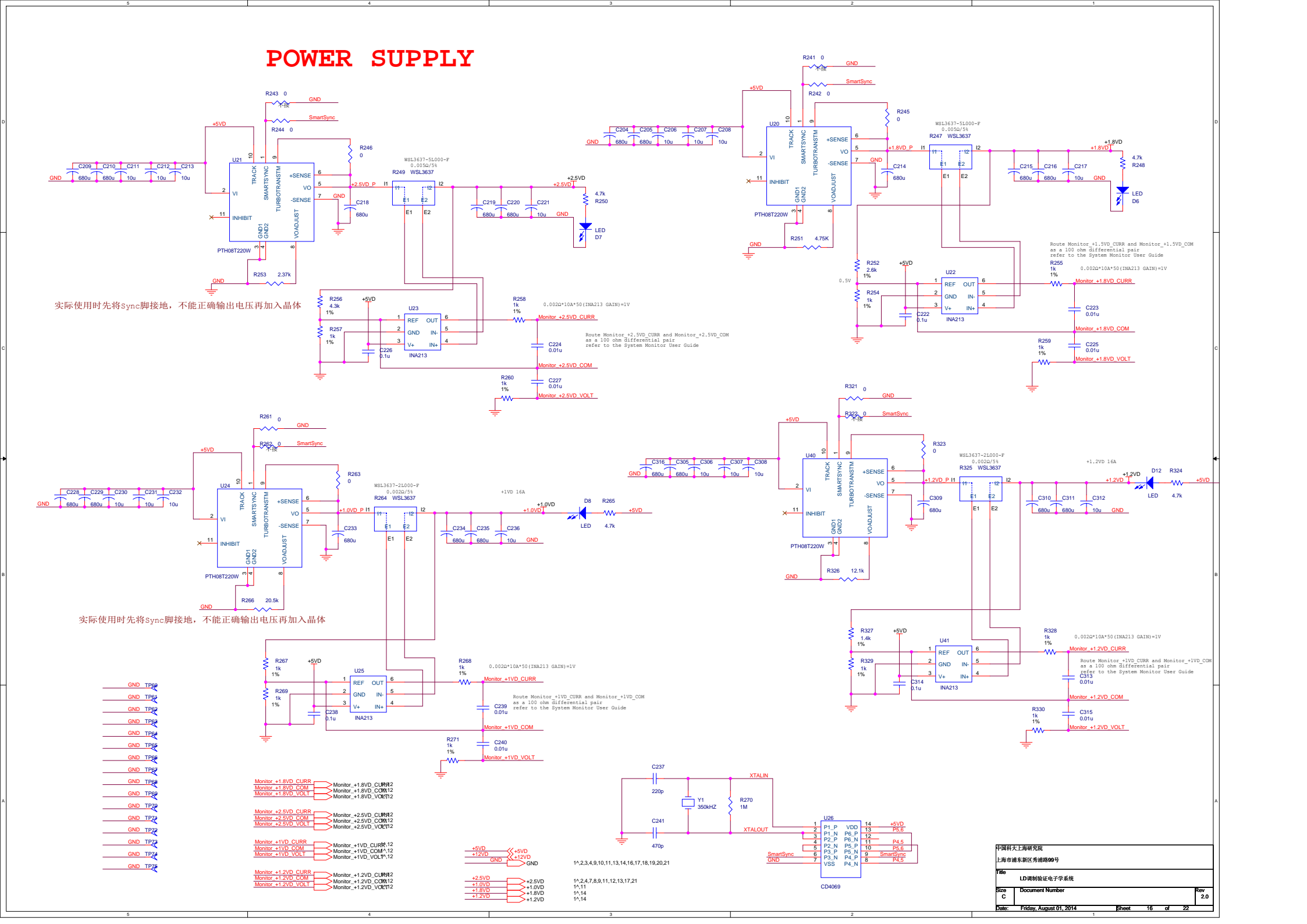
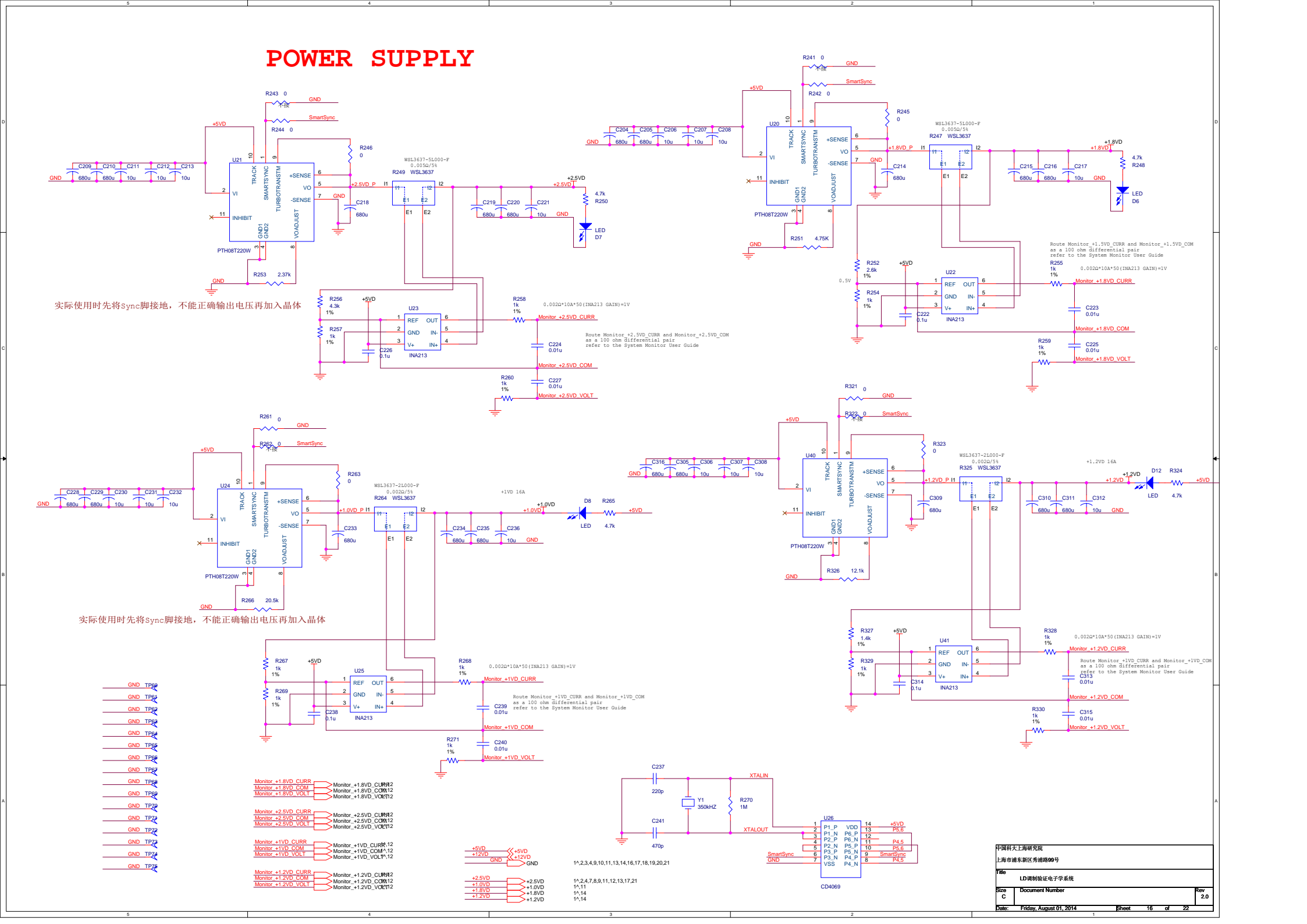
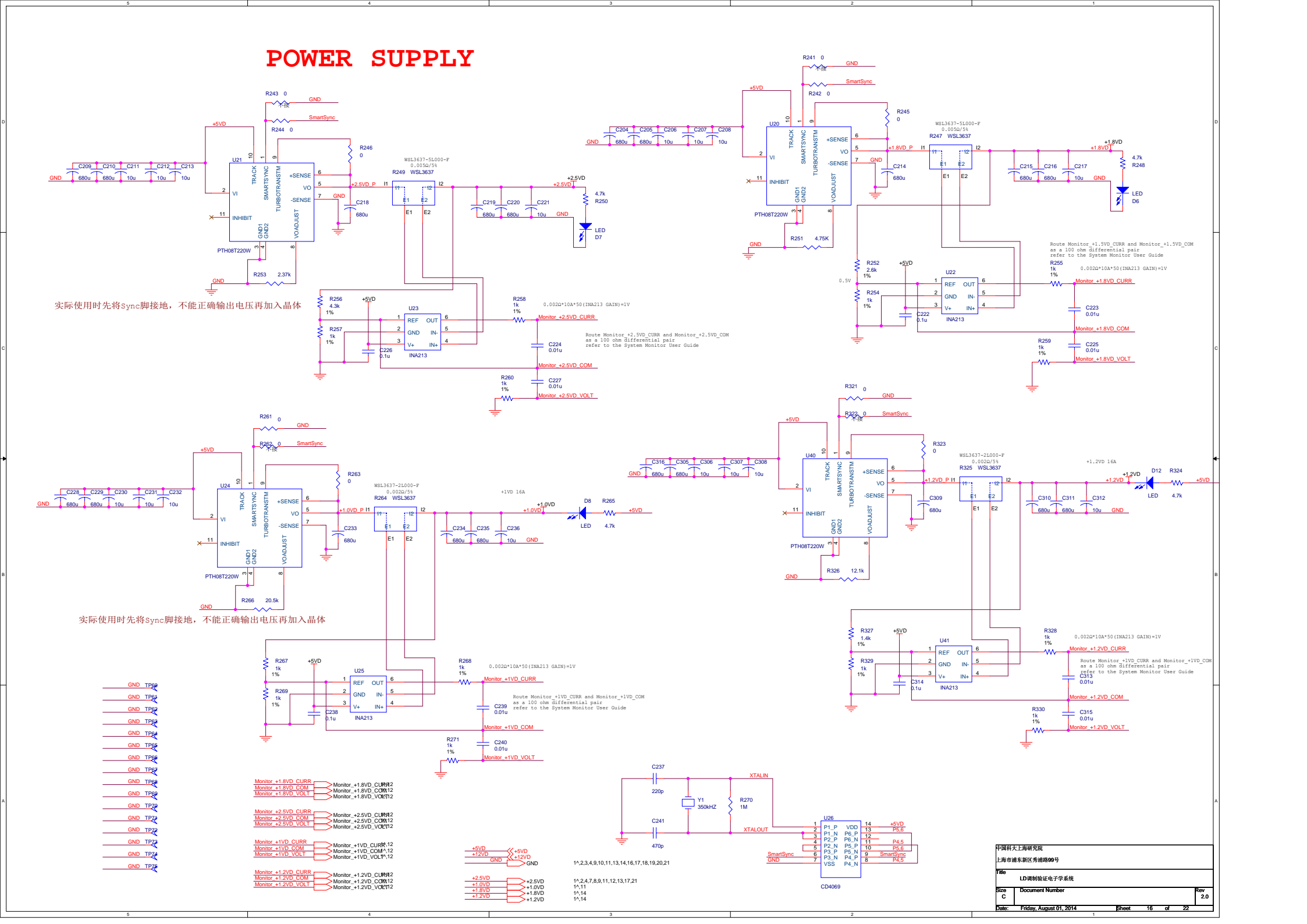
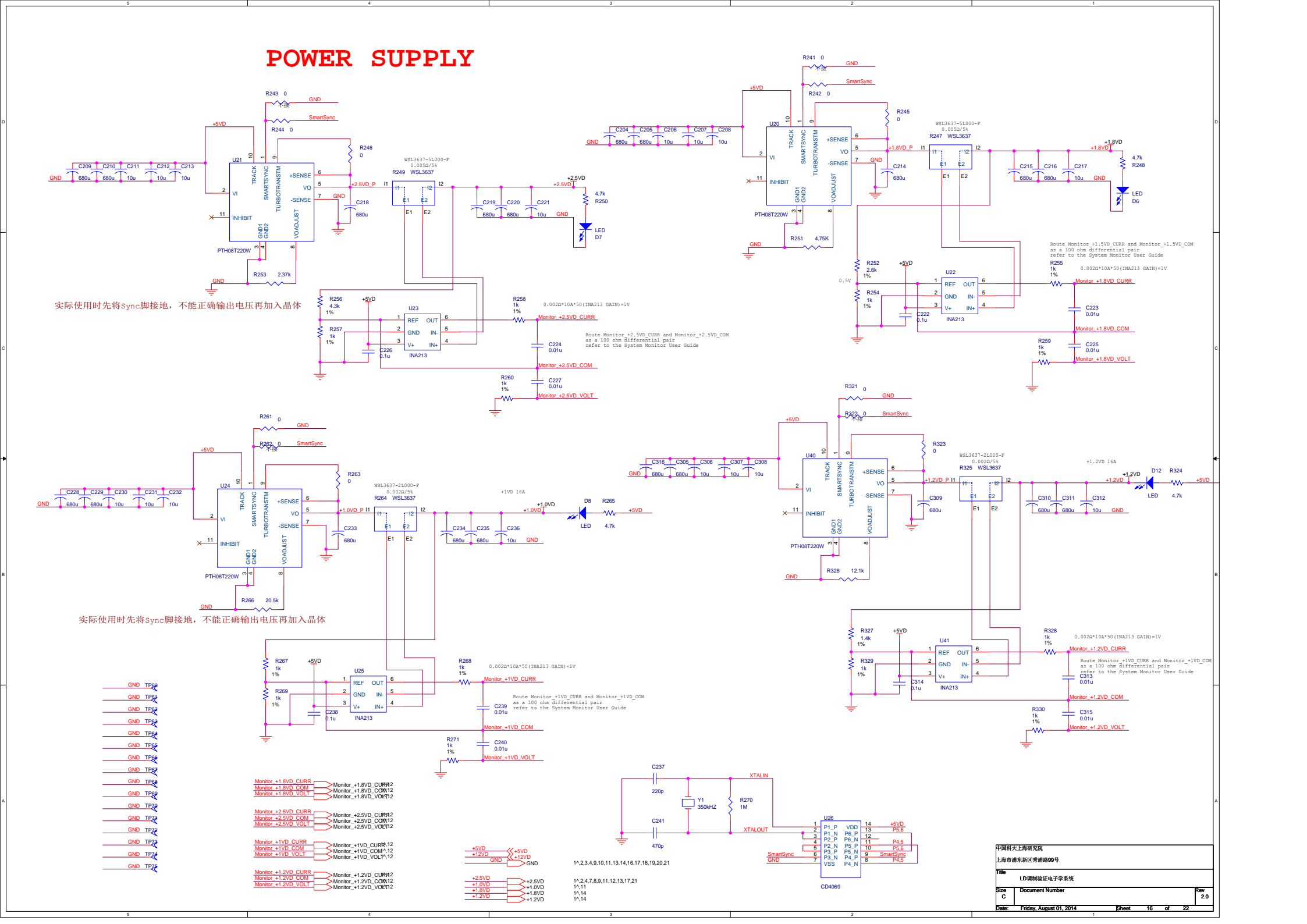
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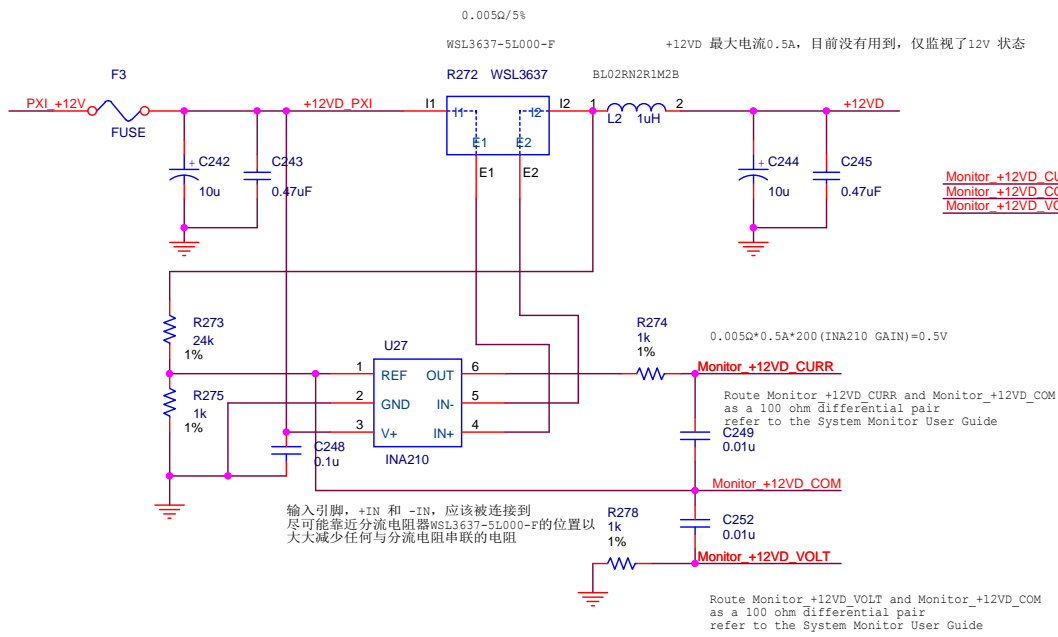
适用芯片

- Cypress QDRII+ CY7C1565V18-375BZXC
- Samsung QDRII+ K7S3236U4C-EC400

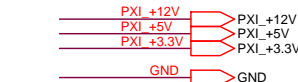
DOFF HEADER SELECTIONS  
1-2 QDR-II+ Mode - PLL ON  
2-3 QDR Mode (<167MHz) - PLL OFF

**POWER SUPPLY**

[illegible][illegible]

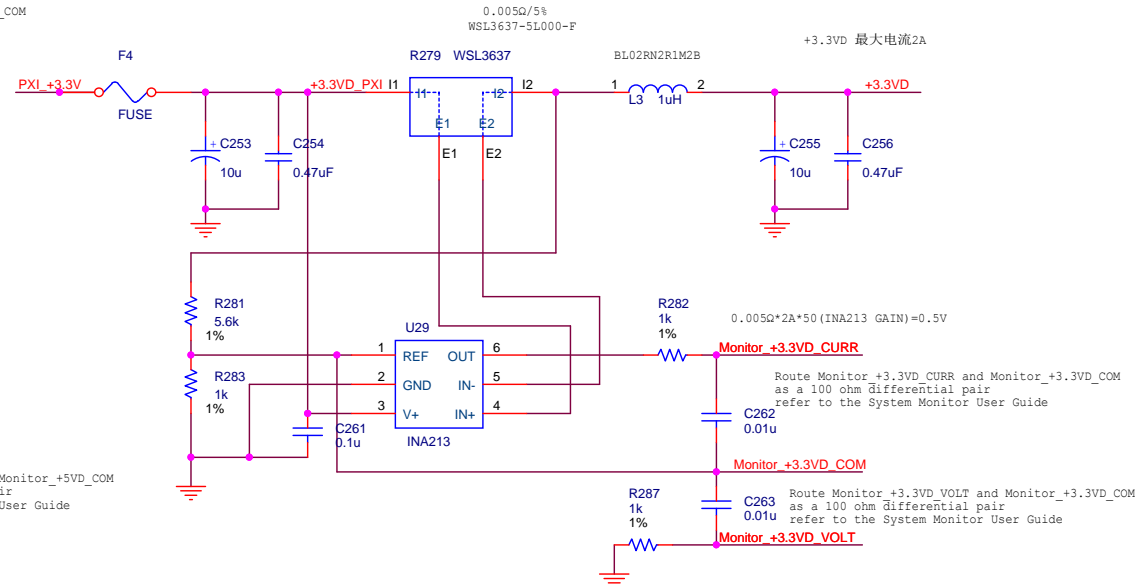
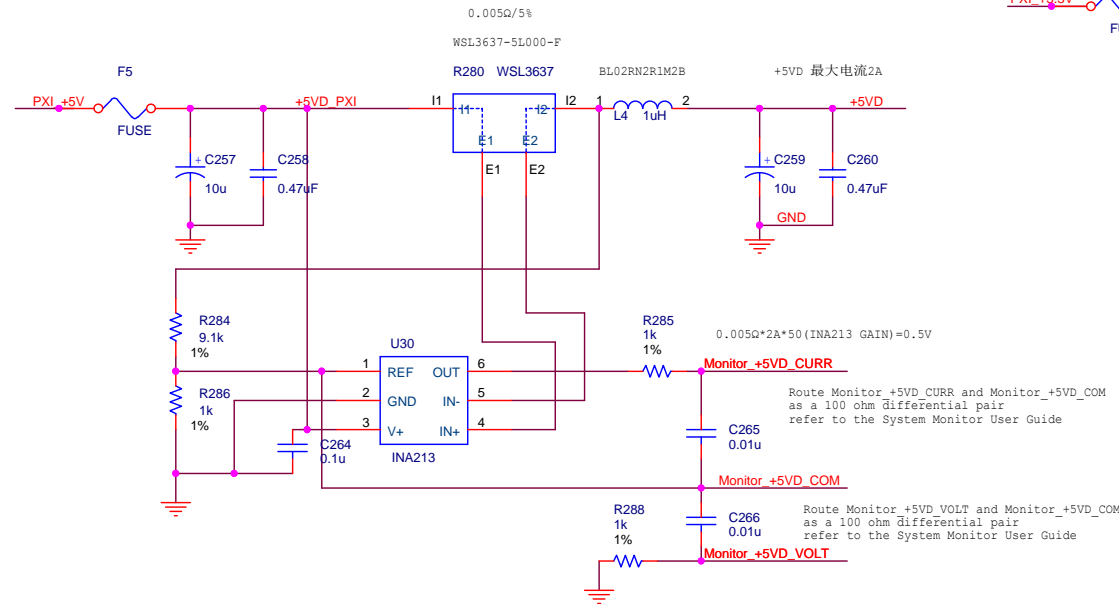
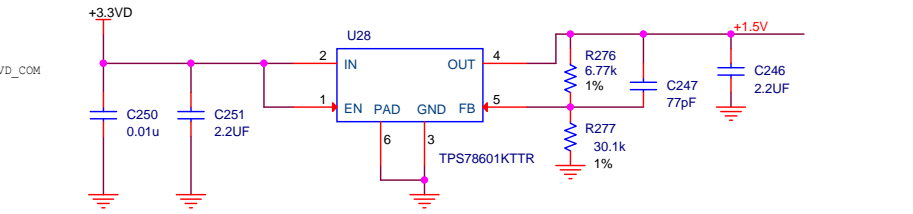


Monitor\_+12VD\_CURR  
Monitor\_+12VD\_COM  
Monitor\_+12VD\_VOLT



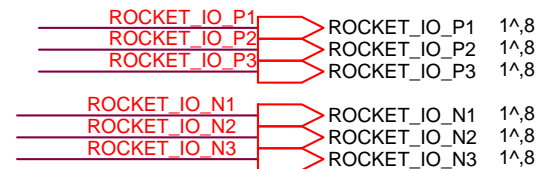
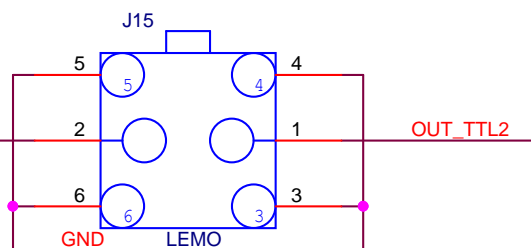
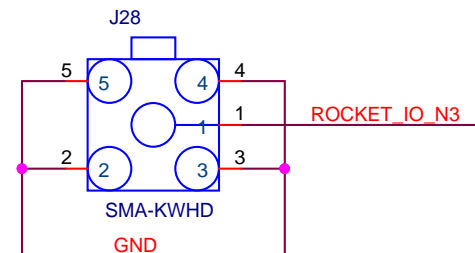
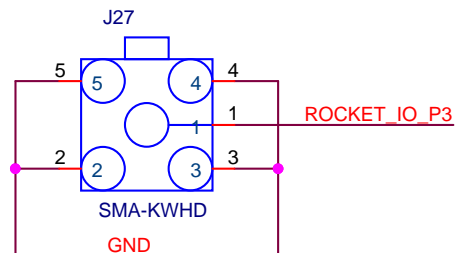
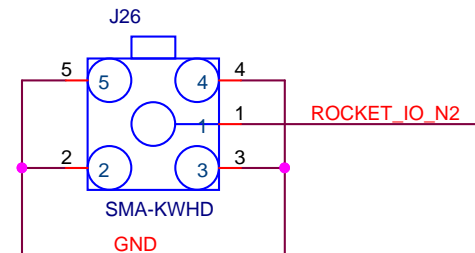
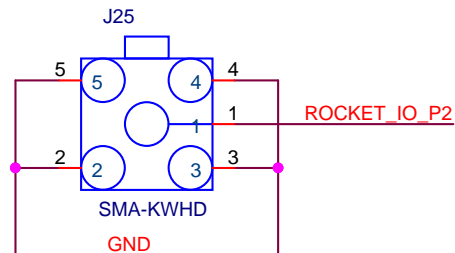
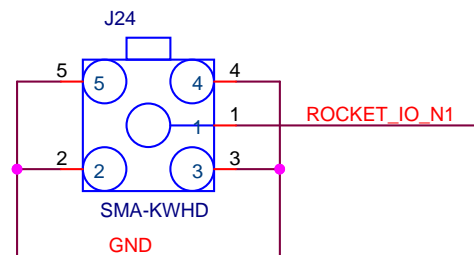
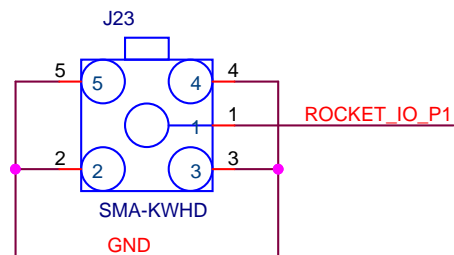
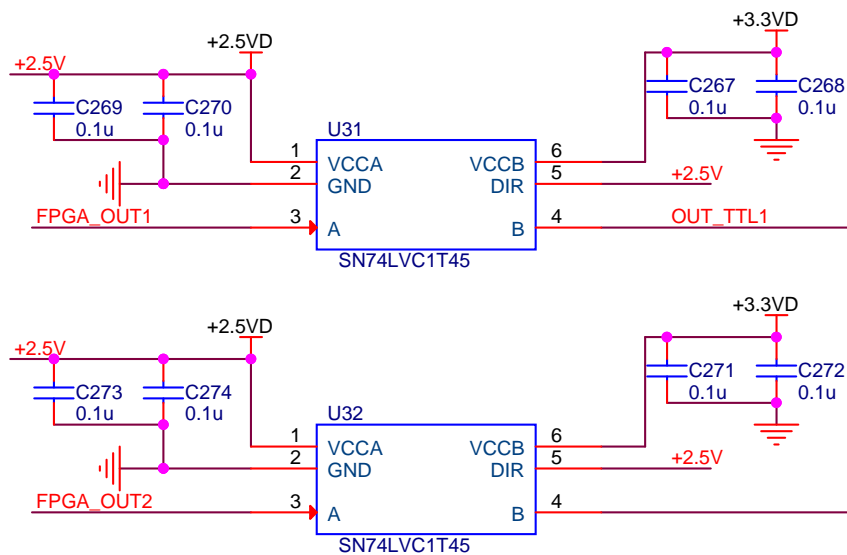
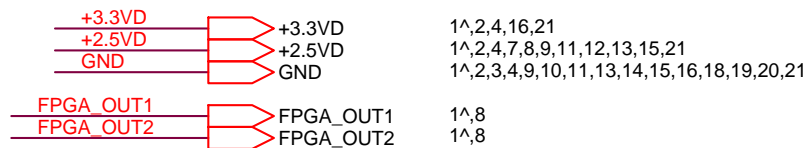
Monitor\_+5VD\_CURR  
Monitor\_+5VD\_COM  
Monitor\_+5VD\_VOLT

Monitor\_+3.3VD\_CURR  
Monitor\_+3.3VD\_COM  
Monitor\_+3.3VD\_VOLT

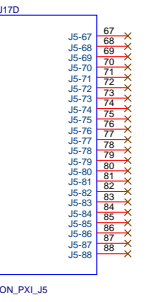
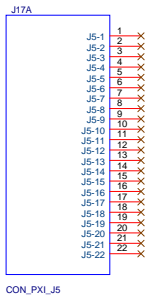
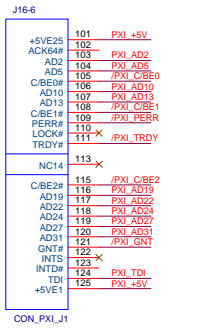
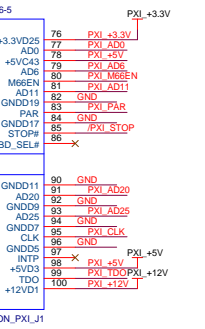
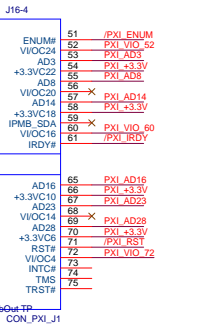
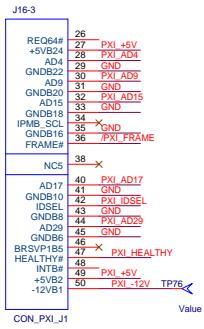
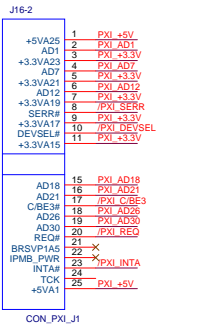
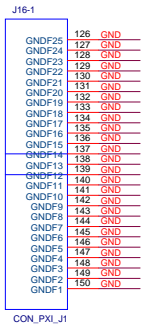


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上海市浦东新区秀浦路99号		
Title		
LD调制验证电子学系统		
Size	Document Number	Rev
B		2.0
Date:	Friday, August 01, 2014	Sheet 17 of 22

# OUTPUT



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上海市浦东新区秀浦路99号		
Title		
LD调制验证电子学系统		
Size	Document Number	Rev
A		2.0
Date:	Friday, August 01, 2014	Sheet 18 of 22



address and data pins

PXI\_AD[31:0] << PXI\_AD[31:0]  
PXI\_PAR << PXI\_PAR  
/PXI\_CBE[3:0] << /PXI\_CBE[3:0]

system pins

PXI\_CLK << PXI\_CLK  
/PXI\_RST << /PXI\_RST

Error Reporting pins

/PXI\_SERR << /PXI\_SERR  
/PXI\_PERR << /PXI\_PERR

Interface Control Pins

/PXI\_FRAME << /PXI\_FRAME  
/PXI\_IRDY << /PXI\_IRDY  
/PXI\_TRDY << /PXI\_TRDY  
/PXI\_STOP << /PXI\_STOP  
PXI\_IDSEL << PXI\_IDSEL  
/PXI\_DEVSEL << /PXI\_DEVSEL

Arbitration Pins (Bus Masters Only)

/PXI\_GNT << /PXI\_GNT  
/PXI\_REQ << /PXI\_REQ

Interrupt Pins

/PXI\_INTA << /PXI\_INTA  
PXI\_STAR << PXI\_STAR

Trigger Bus and Star Trigger

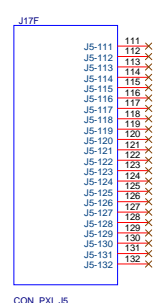
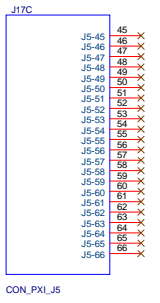
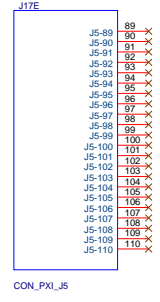
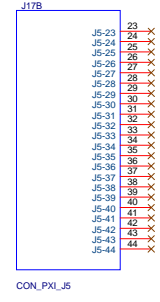
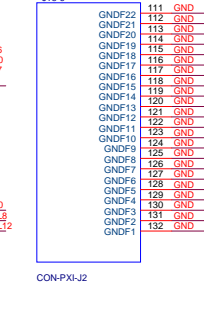
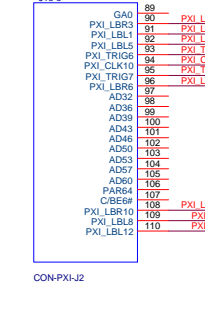
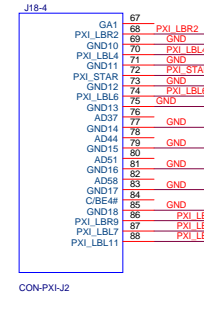
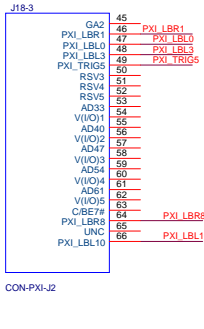
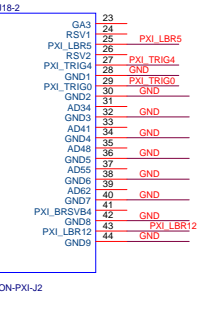
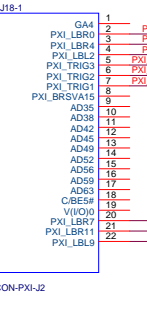
PXI\_TRIG[7:0] << PXI\_TRIG[7:0]  
PXI\_STAR << PXI\_STAR

system reference clock

PXI\_CLK10 << PXI\_CLK10

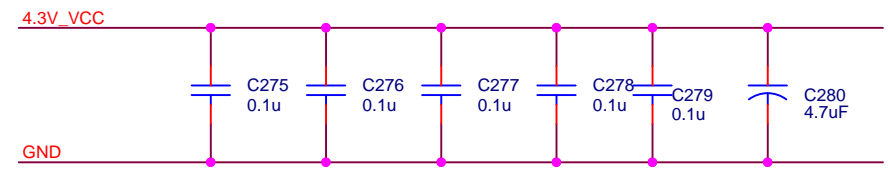
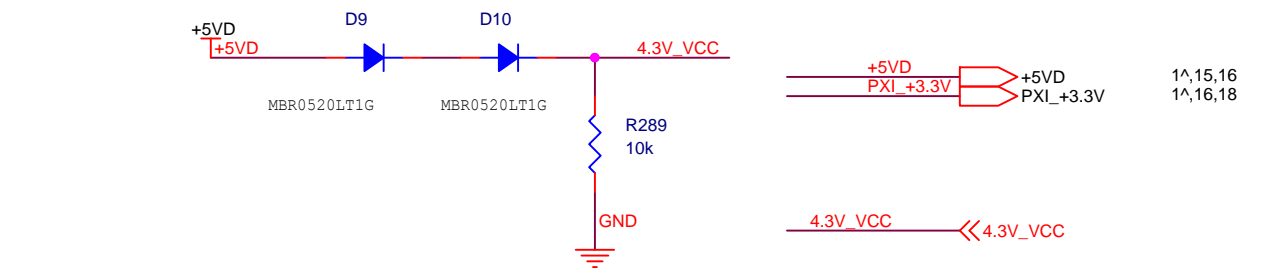
PXI Local Bus

PXI\_LBR[11:0] << PXI\_LBR[11:0]  
PXI\_LBR[11:0] << PXI\_LBR[11:0]  
PXI\_LBR12 << PXI\_LBR12  
PXI\_LBR12 << PXI\_LBR12



# PXI POWER

此处D9,D10封装画反。焊接时要注意有标志为正端。



## 机箱保护地

## 连到板框边缘





## address and data pins

PXI\_AD[31..0] << PXI\_AD[31..0]  
PXI\_PAR << PXI\_PAR  
/PXI\_C/BE[3..0] << /PXI\_C/BE[3..0]

## system pins

PXI\_CLK << PXI\_CLK  
/PXI\_RST << /PXI\_RST

## Error Reporting pins

/PXI\_SERR << /PXI\_SERR  
/PXI\_PERR << /PXI\_PERR

## Interface Control Pins

/PXI\_FRAME << /PXI\_FRAME  
/PXI\_IRDY << /PXI\_IRDY  
/PXI\_TRDY << /PXI\_TRDY  
/PXI\_STOP << /PXI\_STOP  
PXI\_IDSEL << PXI\_IDSEL  
/PXI\_DEVSEL << /PXI\_DEVSEL

## Arbitration Pins (Bus Masters Only)

/PXI\_GNT << /PXI\_GNT  
/PXI\_REQ << /PXI\_REQ

## Interrupt Pins

/PXI\_INTA << /PXI\_INTA

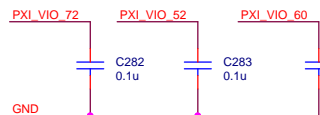
## Trigger Bus and Star Trigger

PXI\_TRIG[7..0] << PXI\_TRIG[7..0]  
PXI\_STAR << PXI\_STAR

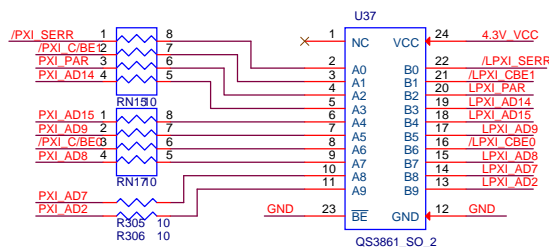
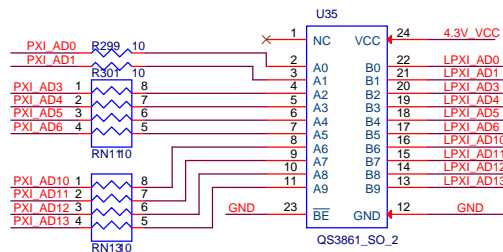
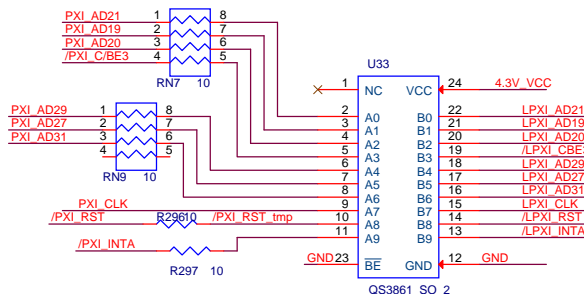
## system reference clock

PXI\_CLK10 << PXI\_CLK10

PXI\_VIO\_72 >> PXI\_VIO\_72  
PXI\_VIO\_52 >> PXI\_VIO\_52  
PXI\_VIO\_60 >> PXI\_VIO\_60



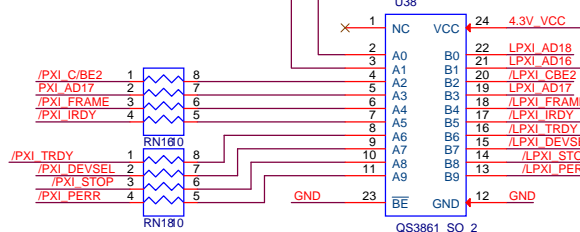
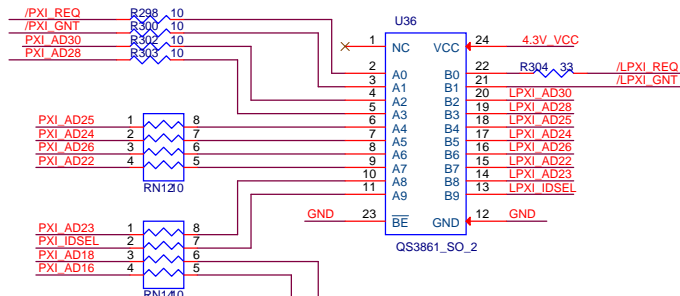
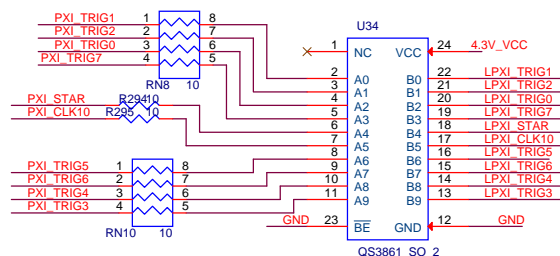
0.1uF 或者 0.01uF  
线长小与250mil, 线宽至少20mil



## PXI Local Bus

PXI\_LBR[11..0] << PXI\_LBR[11..0] << PXI\_LBR[11..0] 1^,4,18  
PXI\_LBL[11..0] << PXI\_LBL[11..0] << PXI\_LBL[11..0] 1^,4,18  
PXI\_LBR12 << PXI\_LBR12 << PXI\_LBR12 1^,4,18  
PXI\_LBL12 << PXI\_LBL12 << PXI\_LBL12 1^,4,18

PXI\_HEALTHY >> PXI\_HEALTHY  
PXI\_M66EN >> PXI\_M66EN  
PXI\_TDO >> PXI\_TDO  
/PXI\_ENUM >> /PXI\_ENUM



# 电平转换

4.3V\_VCC << 4.3V\_VCC

## address and data pins

PXI\_AD[31..0] >> LPXI\_AD[31..0] 1^,4  
LPXI\_PAR >> LPXI\_PAR 1^,4  
/LPXI\_C/BE[3..0] >> /LPXI\_C/BE[3..0] 1^,4

## system pins

LPXI\_CLK >> LPXI\_CLK 1^,4  
/LPXI\_RST >> /LPXI\_RST 1^,4

## Error Reporting pins

/LPXI\_SERR >> /LPXI\_SERR 1^,4  
/LPXI\_PERR >> /LPXI\_PERR 1^,4

## Interface Control Pins

/LPXI\_FRAME >> /LPXI\_FRAME 1^,4  
/LPXI\_IRDY >> /LPXI\_IRDY 1^,4  
/LPXI\_TRDY >> /LPXI\_TRDY 1^,4  
LPXI\_IDSEL >> LPXI\_IDSEL 1^,4  
/LPXI\_DEVSEL >> /LPXI\_DEVSEL 1^,4

## Arbitration Pins (Bus Masters Only)

/LPXI\_GNT >> /LPXI\_GNT 1^,4  
/LPXI\_REQ >> /LPXI\_REQ 1^,4

## Interrupt Pins

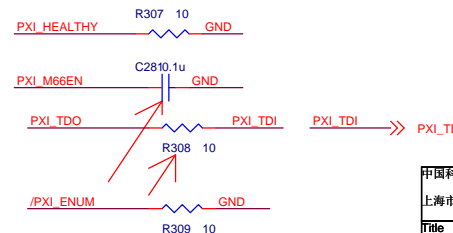
/LPXI\_INTA >> /LPXI\_INTA 1^,4

## Trigger Bus and Star Trigger

PXI\_TRIG[7..0] >> LPXI\_TRIG[7..0] 1^,4  
LPXI\_STAR >> LPXI\_STAR 1^,4

## system reference clock

LPXI\_CLK10 >> LPXI\_CLK10 1^,4



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Title LD调制验证电子学系统			
Size A3	Document Number		Rev 2.0
Date: Friday, August 01, 2014	Sheet 21	of 22	

