嵌入式体系结构基于ZYNQ
第三讲

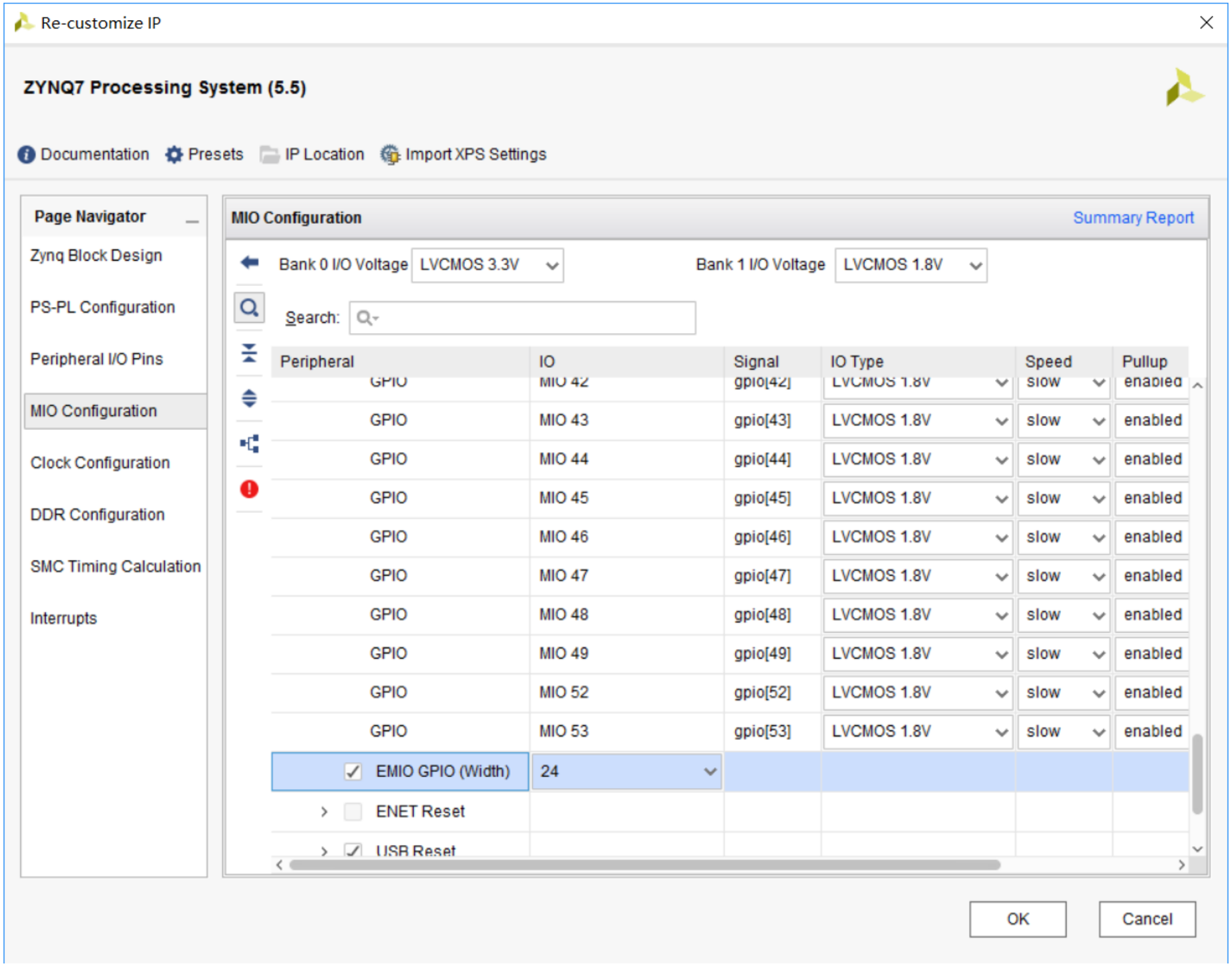
ZYNQ-SoC GPIO

- PS GPIO和PL GPIO
- GPIO输出
- GPIO输入

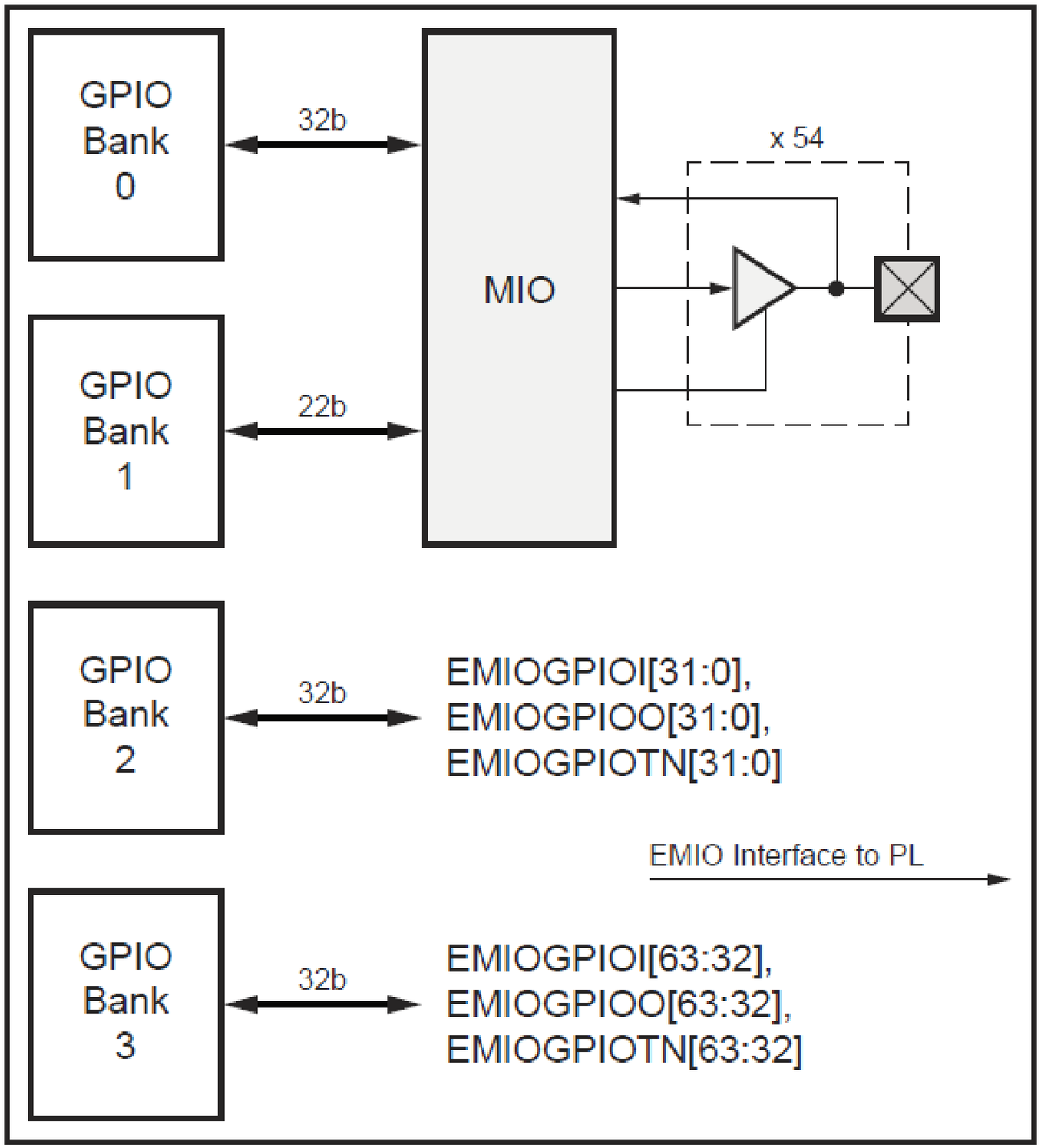
ZYNQ-SoC PS GPIO

- Zynq上PS的MIO数量54
- EMIO接口可将PS的GPIO连接到PL
- 每一位可单独指定方向和产生中断

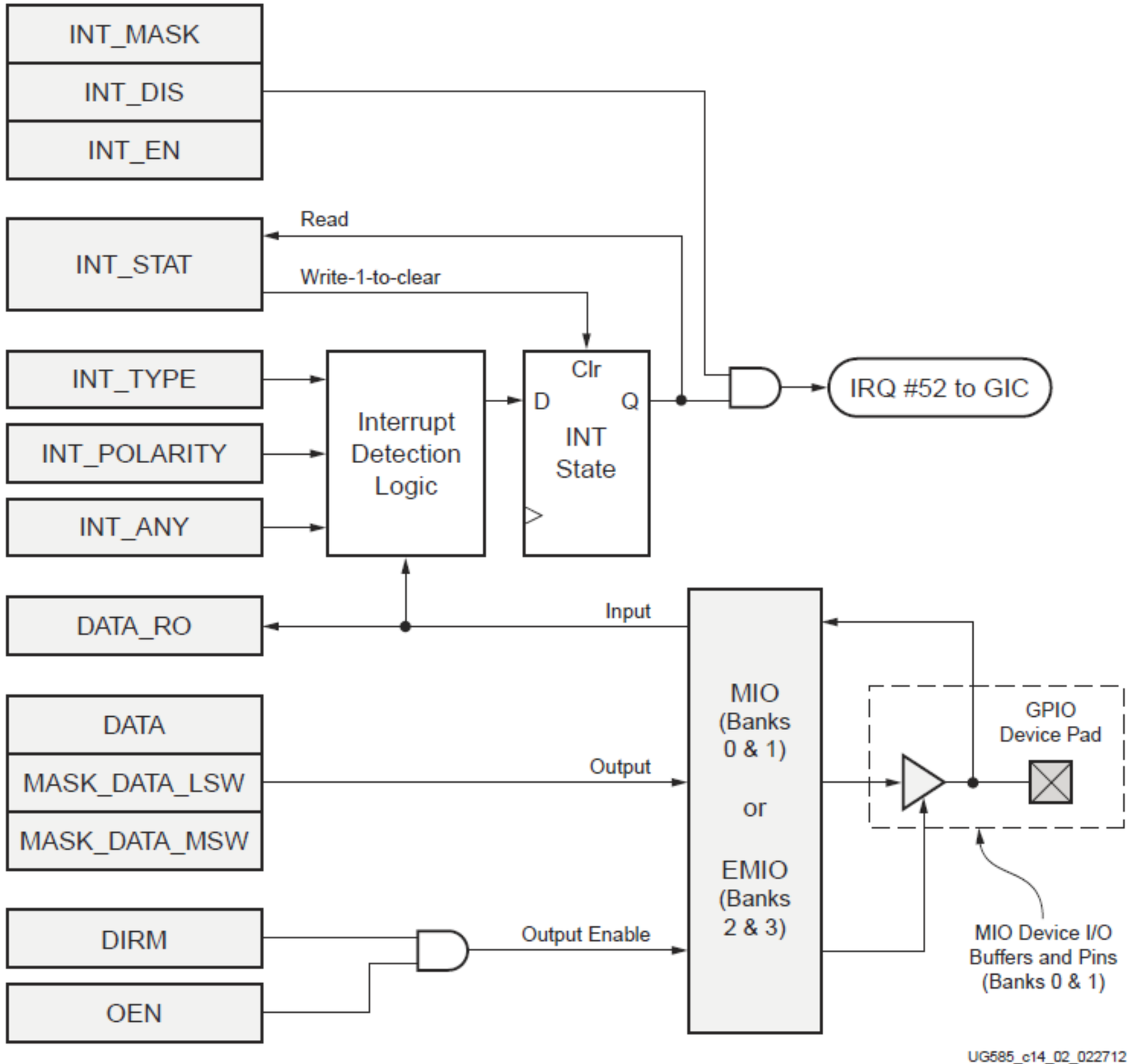
ZYNQ-SoC PS GPIO



ZYNQ-SoC PS GPIO



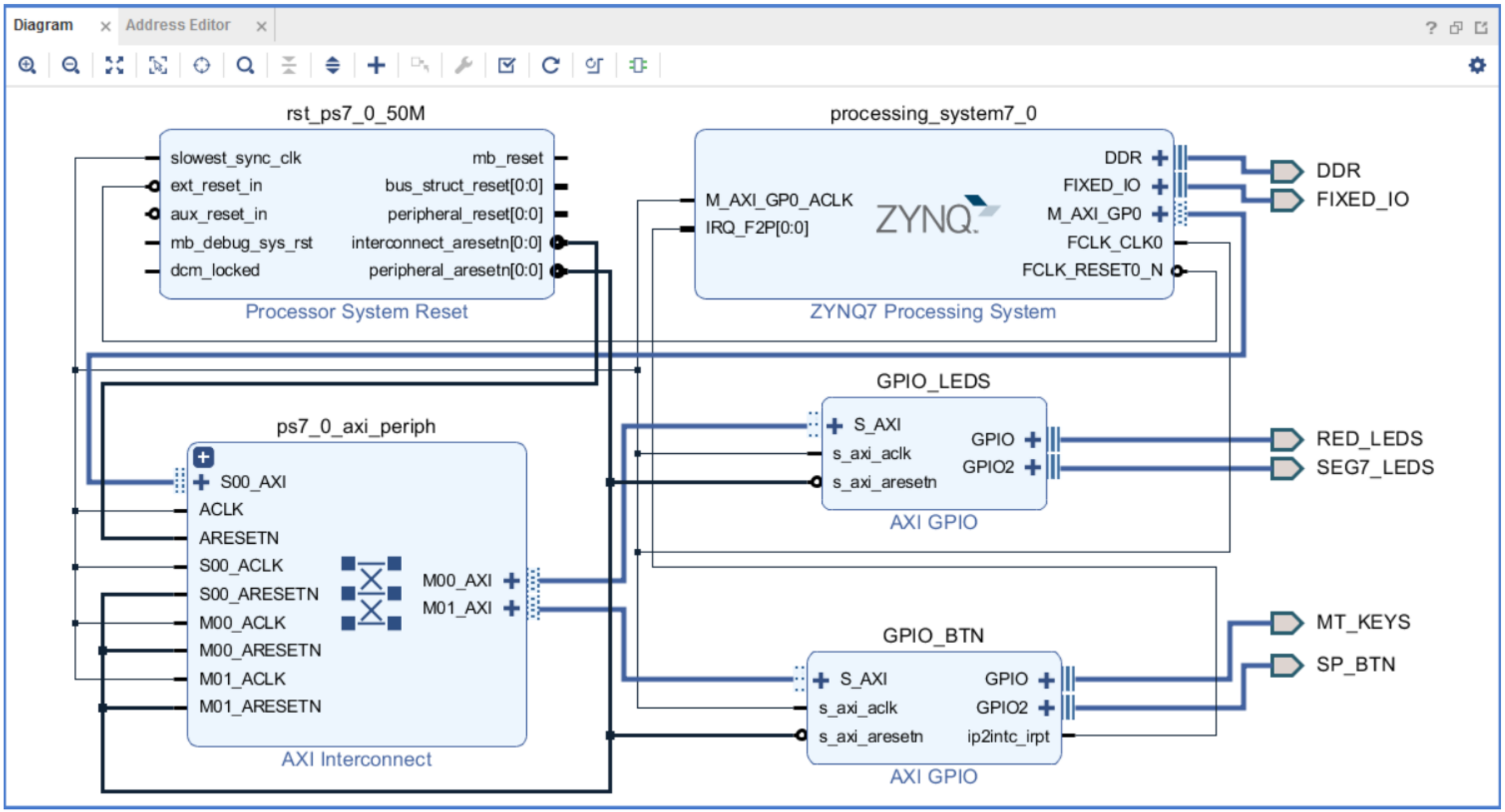
ZYNQ-SoC PS GPIO



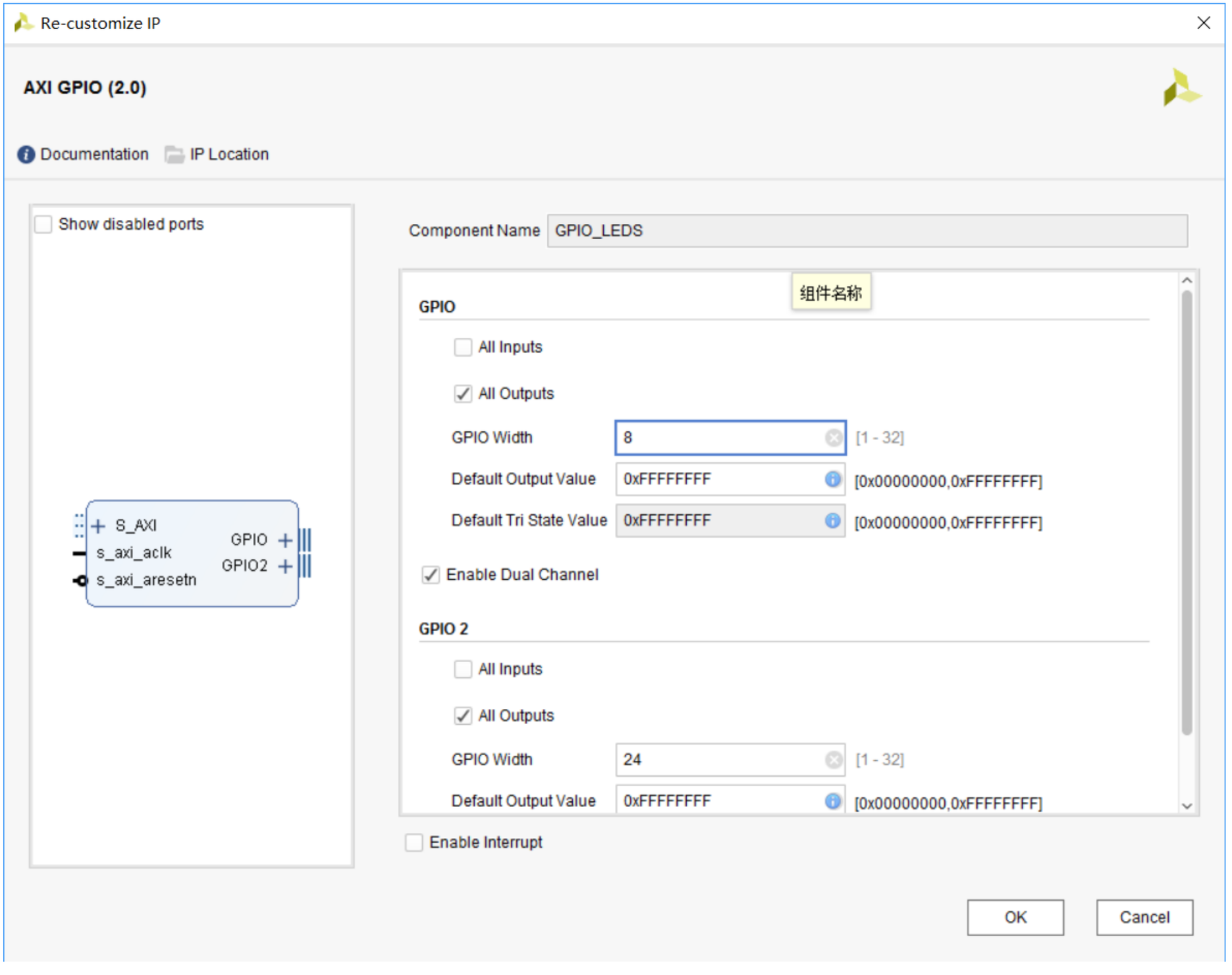
ZYNQ-SoC PS GPIO

- 54位GPIO作为设备控制引脚
  输出具有三态功能
- 192位GPIO通过EMIO连接到PL
  其中64位输入，128位输出
- 每一位可动态编程访问也可分组访问
- 每一位均可单独中断，并可以指定中断类型

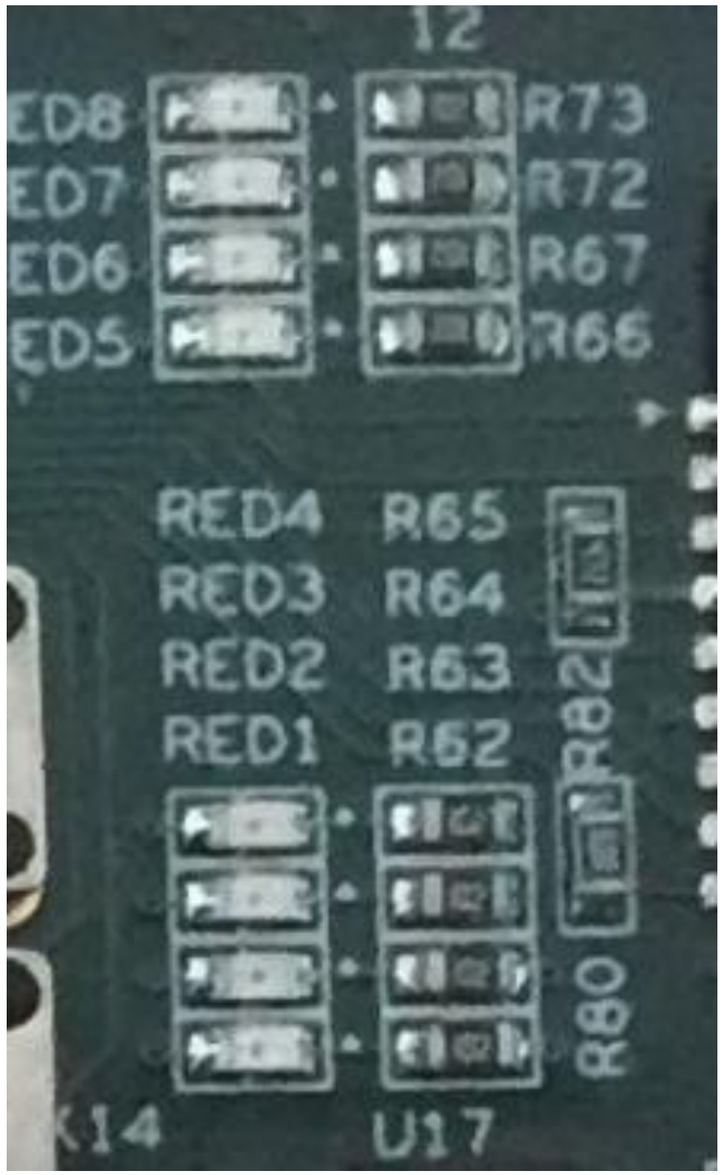
ZYNQ-SoC PL GPIO

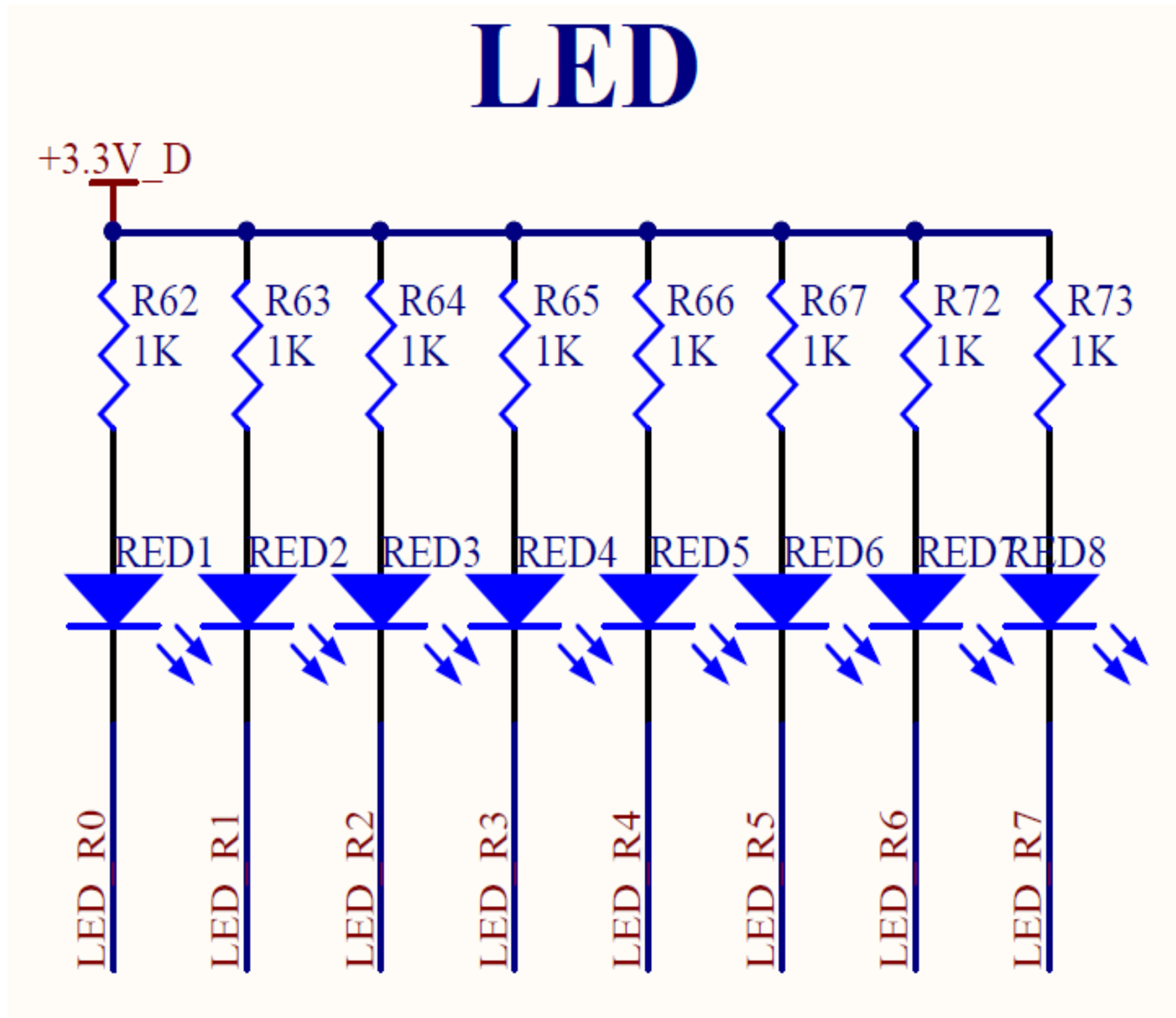


ZYNQ-SoC PL GPIO

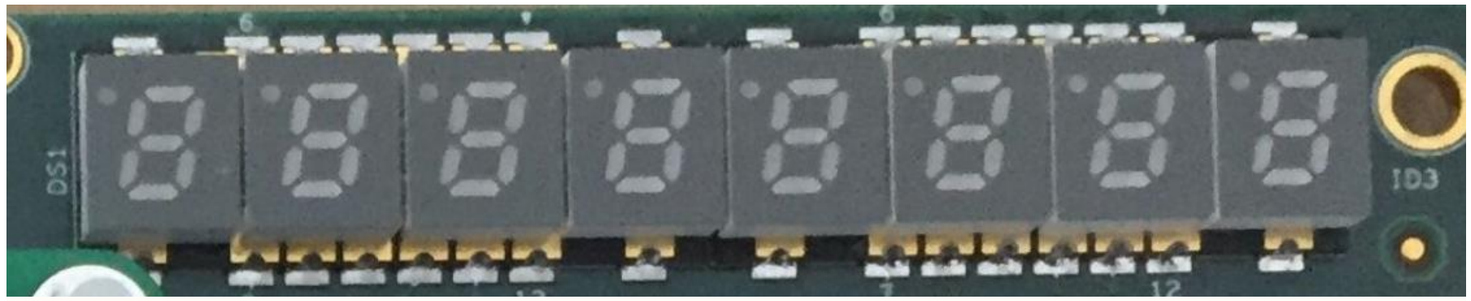


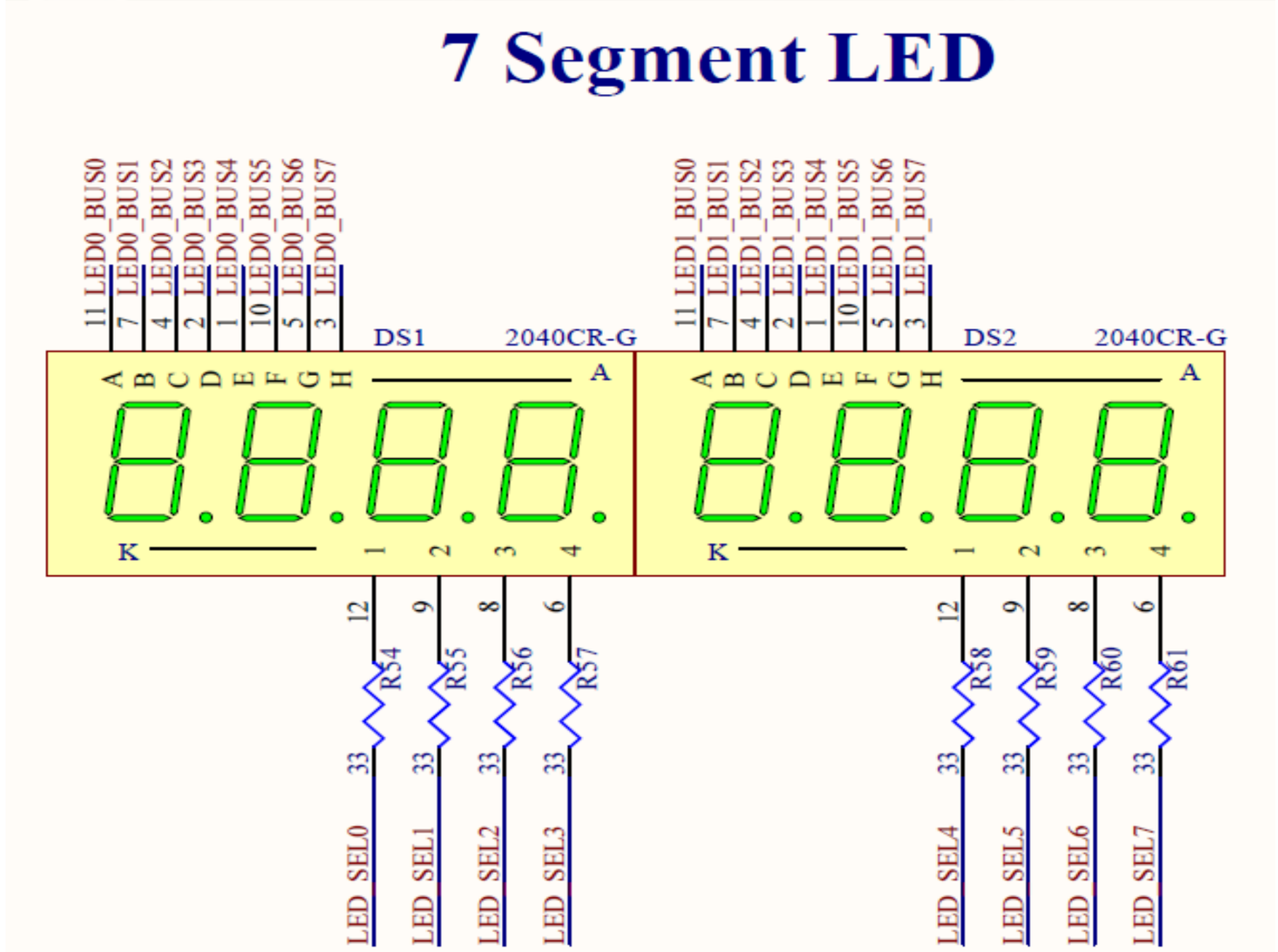
ZYNQ-SoC GPIO 输出



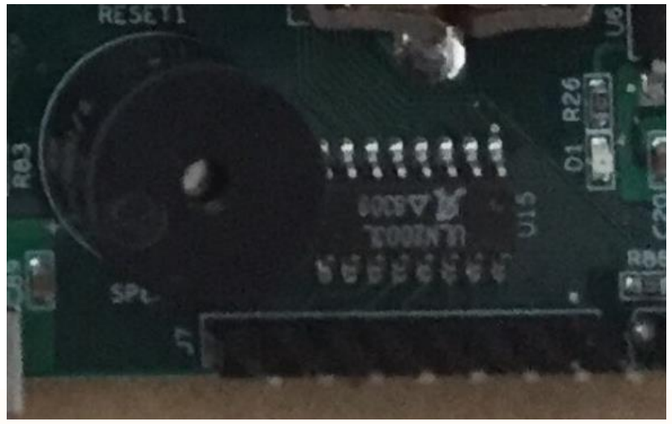


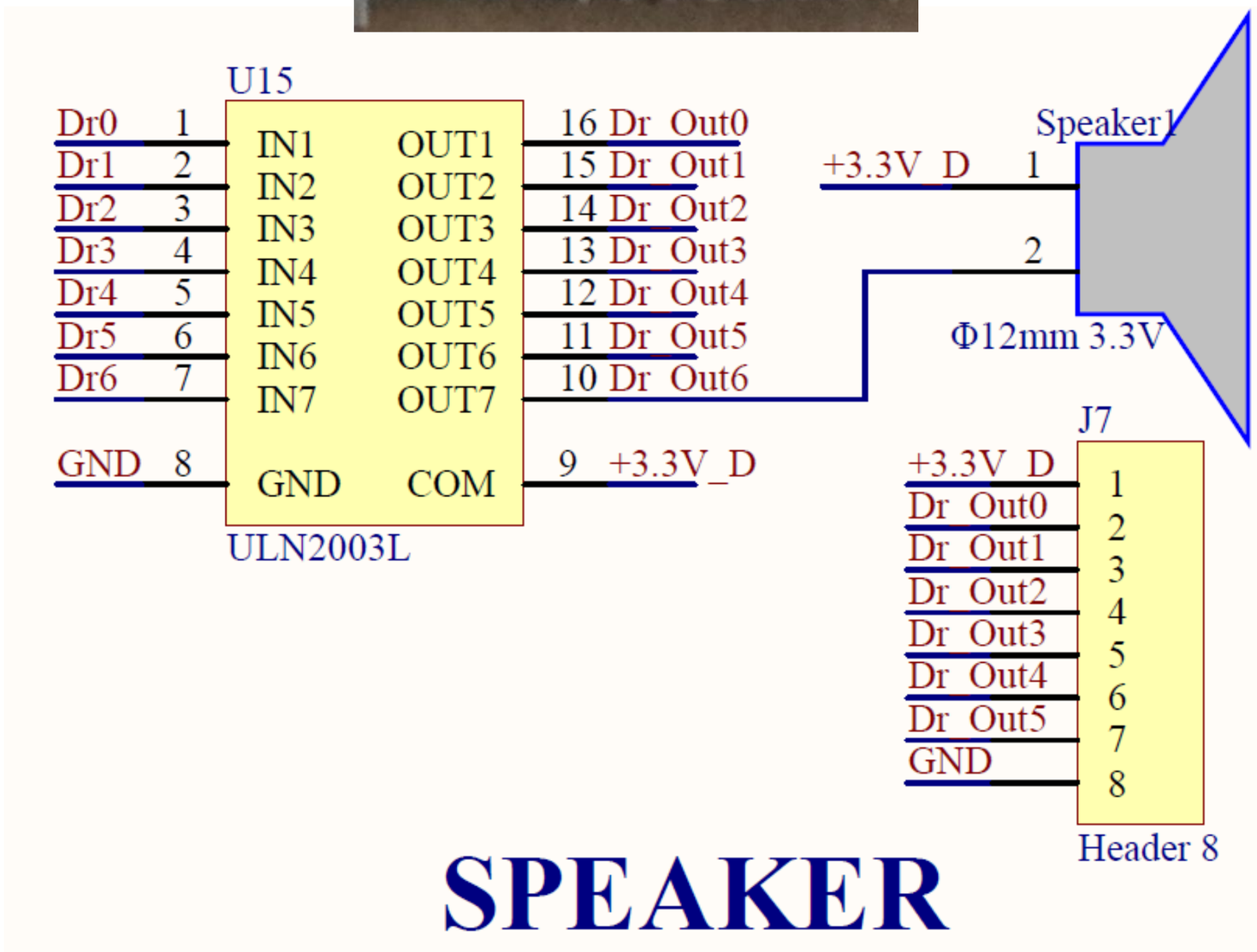
ZYNQ-SoC GPIO 输出





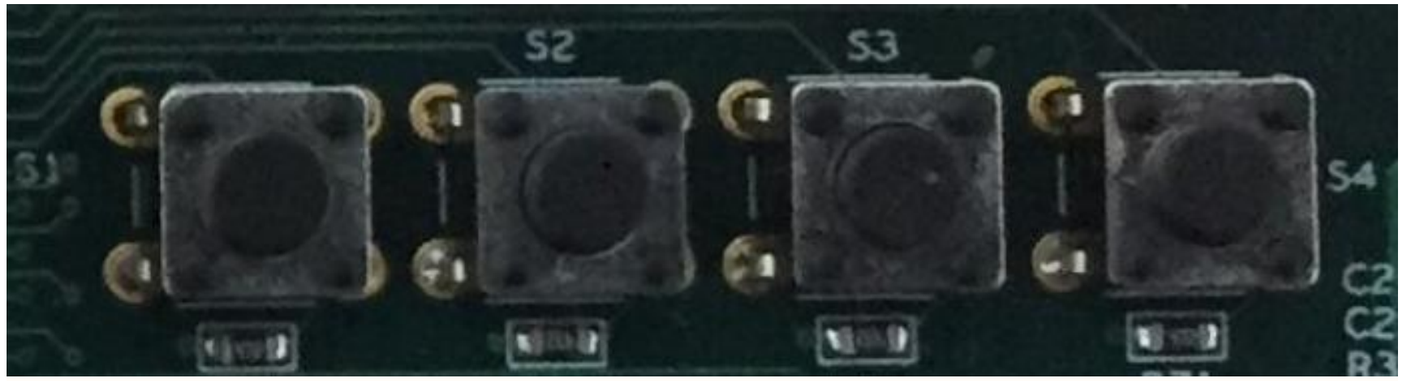
GPIO 输出


RESET1
R26
R83
U15
SPK
ULN2003L

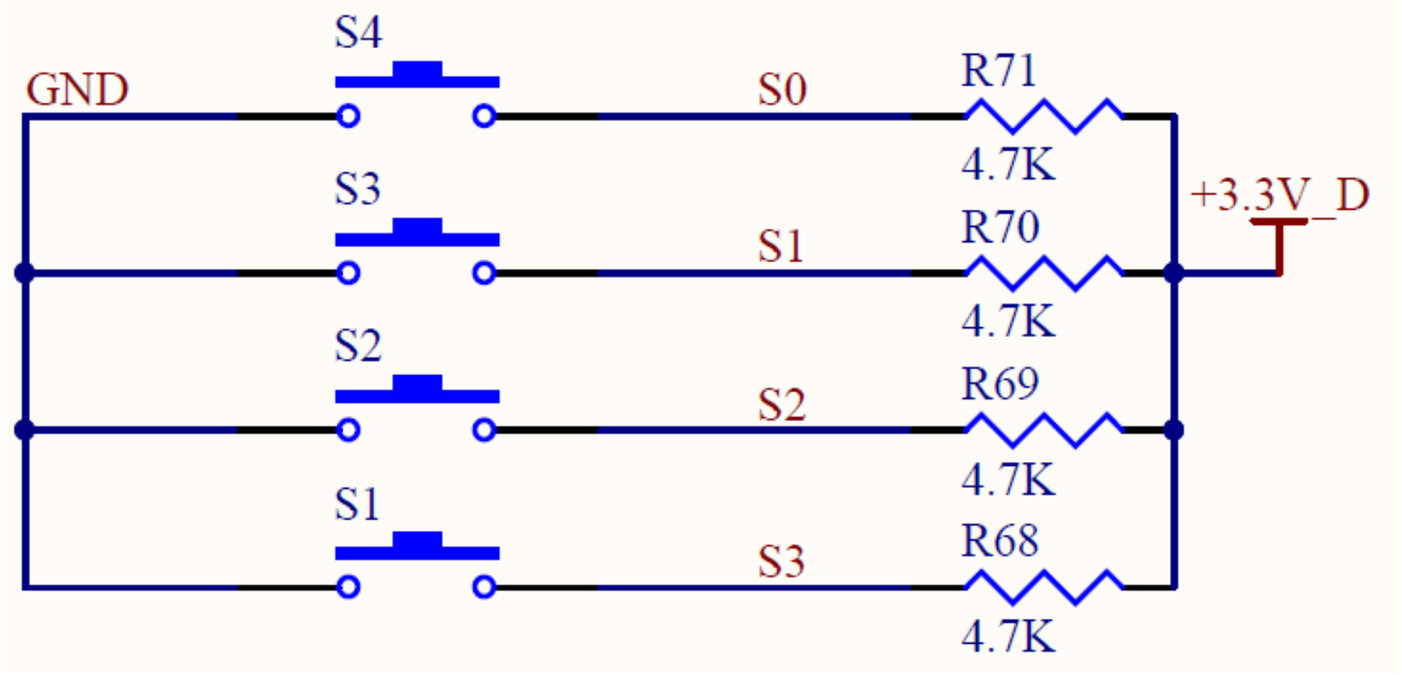

U15
Dr0 1
Dr1 2
Dr2 3
Dr3 4
Dr4 5
Dr5 6
Dr6 7
GND 8
IN1
IN2
IN3
IN4
IN5
IN6
IN7
GND
OUT1
OUT2
OUT3
OUT4
OUT5
OUT6
OUT7
COM
16 Dr_Out0
15 Dr_Out1
14 Dr_Out2
13 Dr_Out3
12 Dr_Out4
11 Dr_Out5
10 Dr_Out6
9 +3.3V_D
ULN2003L
Speaker1
+3.3V_D 1
2
Φ12mm 3.3V
J7
+3.3V_D 1
Dr_Out0 2
Dr_Out1 3
Dr_Out2 4
Dr_Out3 5
Dr_Out4 6
Dr_Out5 7
GND 8
Header 8
SPEAKER

ZYNQ-SoC

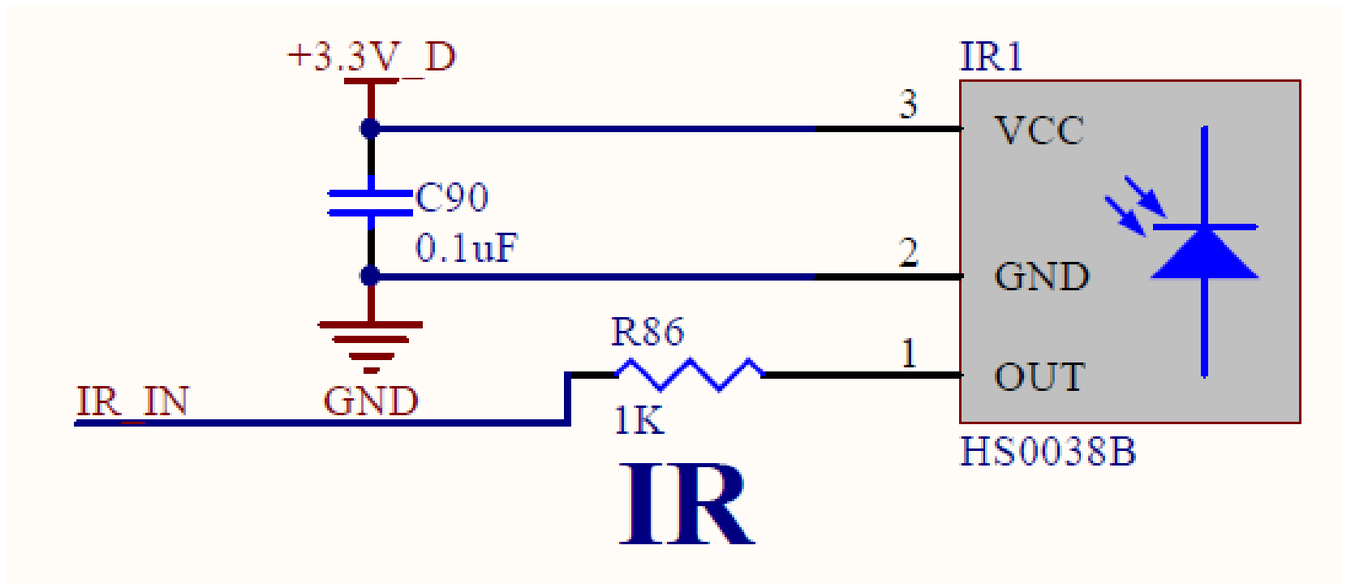
GPIO 输入



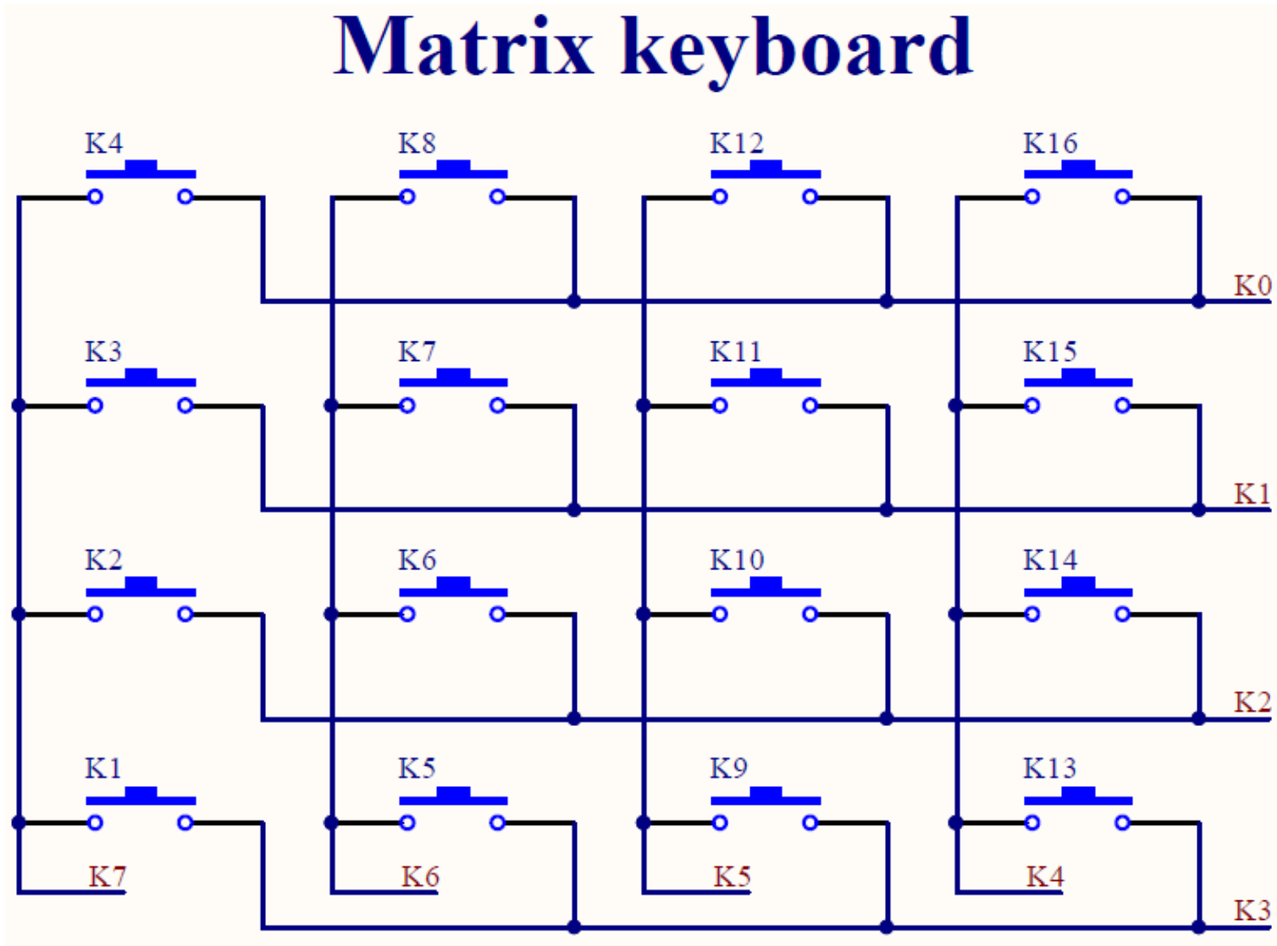
Button

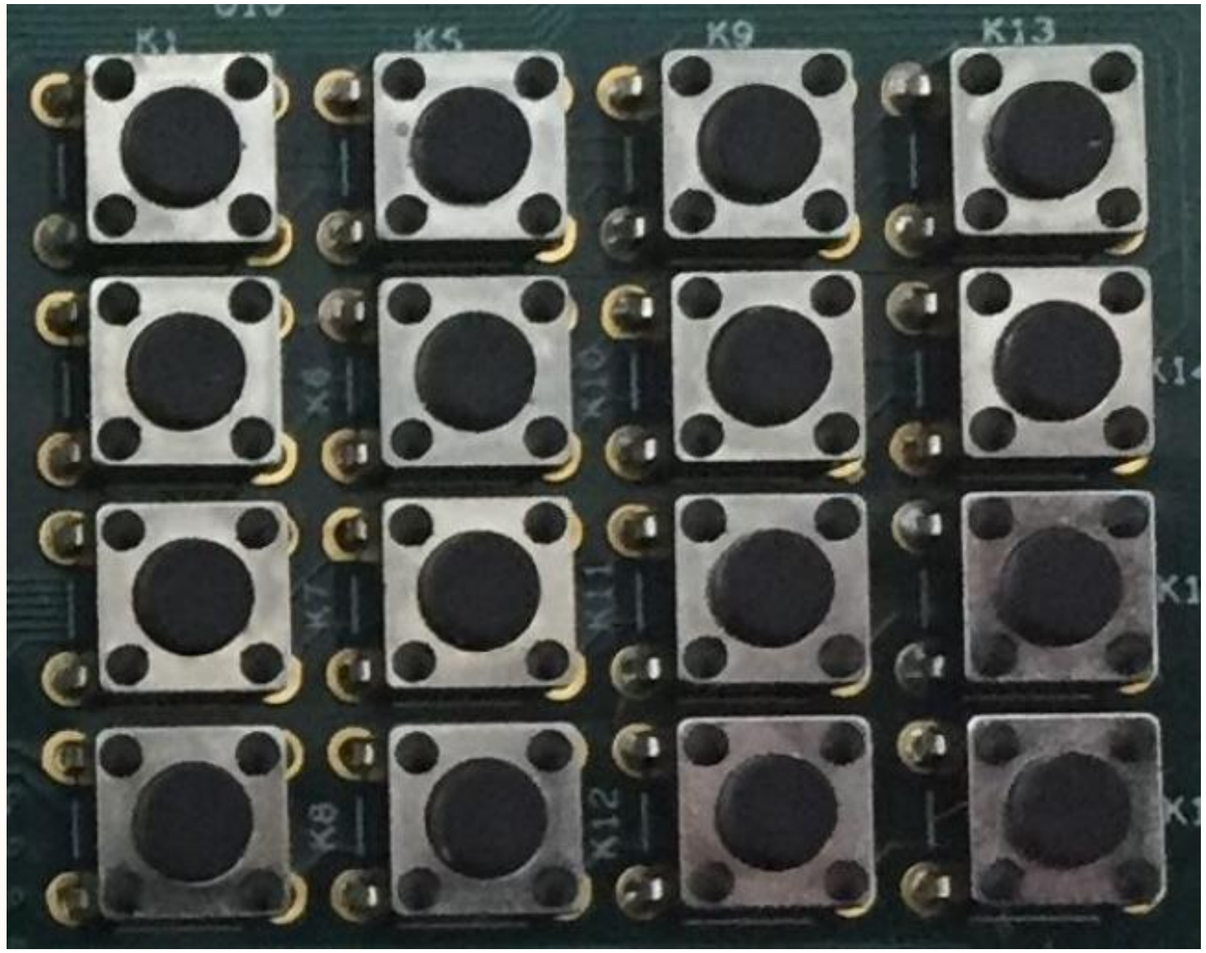


ZYNQ-SoC GPIO 输入

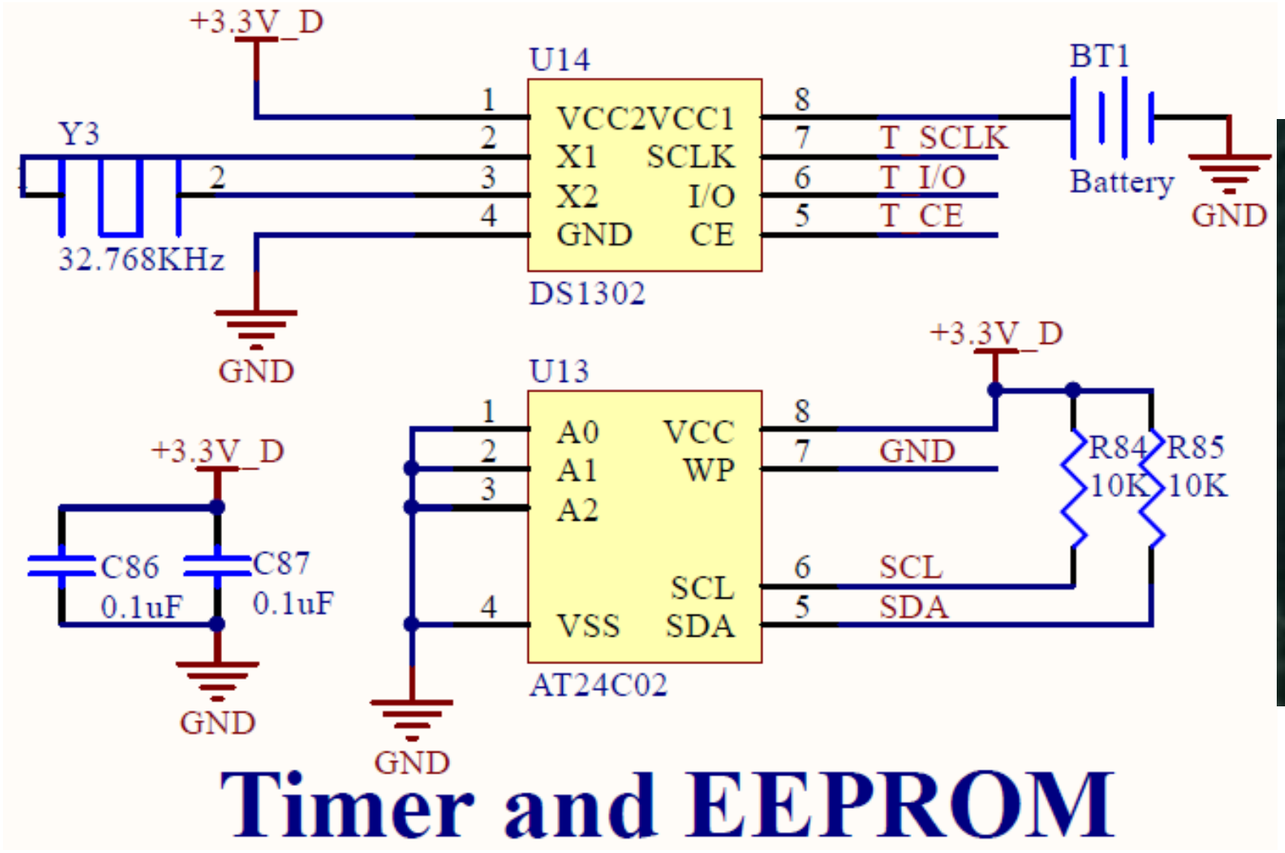


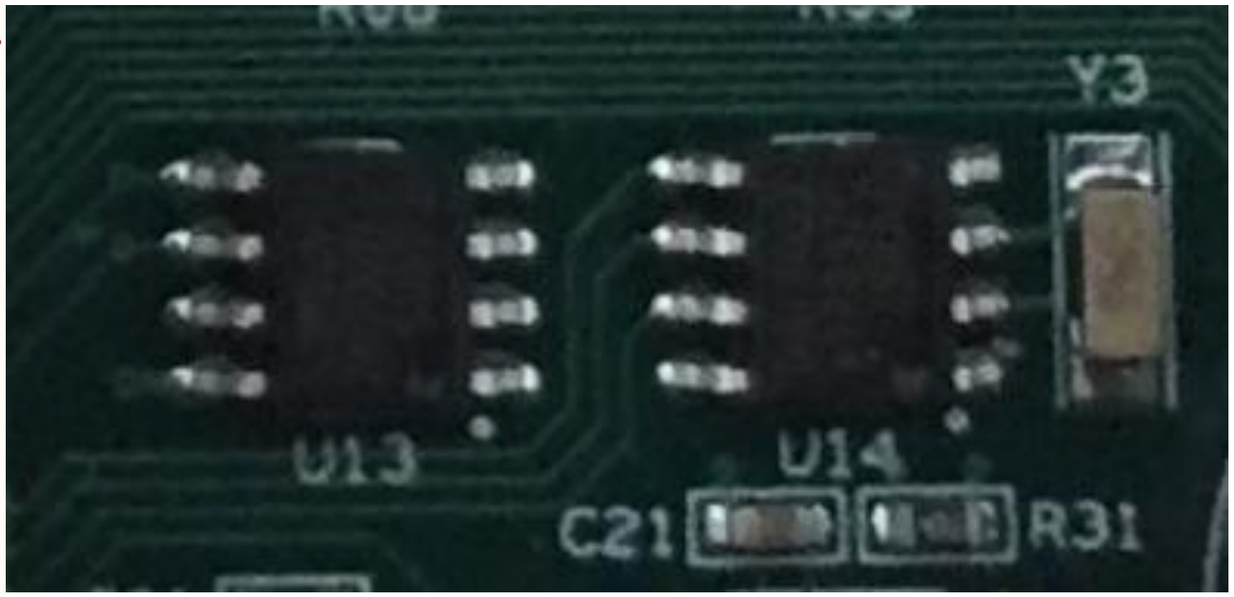
ZYNQ-SoC GPIO 双向





ZYNQ-SoC GPIO 双向





思考题