# 硬件测试验证平台使用说明文档

# 概述

对xbr820项目，FPGA板级测试工程的硬件配置，接线关系进行描述；

# 引用文件

|  |  |  |
| --- | --- | --- |
| **序号** | **文件名称** | **备注** |
| 1 | FMX7A开发板用户手册 | 平头哥FPGA\_DEMO板 |
| 2 |  |  |

# 引脚分配

**表1 管脚说明**

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| --- | --- | --- | --- | --- |
| **序号** | **PIN位置** | **管脚功用** | **管脚描述** | **备注** |
| **1** | K1 | rst\_n | 按下为0，低复位 | 按键复位 |
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|  |  |  |  |  |
| YOC3（芯片管脚） | | | | |
|  | YOC3-J24-1 | m\_scl | IO | master\_scl |
|  | YOC3-J24-2 | **GND** |  |  |
|  | YOC3-J24-3 | m\_sda | IO | master\_sda |
|  | YOC3-J24-4 |  |  |  |
|  | YOC3-J24-5 |  |  |  |
|  | YOC3-J24-6 |  |  |  |
|  | YOC3-J24-7 |  |  |  |
|  | YOC3-J24-8 |  |  |  |
|  | YOC3-J24-9 |  |  |  |
|  | YOC3-J24-10 | **GND** |  |  |
|  | YOC3-J24-11 | s\_scl | I | slave\_scl |
|  | YOC3-J24-12 | s\_sda | O | slave\_sda |
|  | YOC3-J24-13 |  |  |  |
|  | YOC3-J24-14 |  |  |  |
|  | YOC3-J24-15 |  |  |  |
|  | YOC3-J24-16 |  |  |  |
|  | YOC3-J24-17 | uart2\_tx | O | 串口2 |
|  | YOC3-J24-18 | uart2\_rx | I | 串口2 |
|  | YOC3-J24-19 |  |  |  |
|  | YOC3-J24-20 |  |  |  |
|  | YOC3-J24-21 |  |  |  |
|  | YOC3-J24-22 |  |  |  |
|  | YOC3-J24-23 |  |  |  |
|  | **YOC3-J24-24** | **soft\_rst（初始值为0）** | **软件复位，高复位** |  |
| **YOC4（flash接口）** | | | | |
| **6** | YOC4-J23-1 | spi\_clk | O |  |
| **7** | YOC4-J23-2 | GND |  |  |
| **8** | YOC4-J23-3 | spi\_io0 | IO |  |
|  | YOC4-J23-4 |  |  |  |
|  | YOC4-J23-5 | spi\_io1 | I |  |
|  | YOC4-J23-6 |  |  |  |
|  | YOC4-J23-7 | spi\_wpn |  | 暂不使用 |
|  | YOC4-J23-8 |  |  |  |
|  | YOC4-J23-9 | HOLD# |  |  |
|  | YOC4-J23-10 | GND |  |  |
|  | YOC4-J23-11 | spi\_csn | O |  |
|  | YOC4-J23-12 |  |  |  |
|  | YOC4-J23-13 |  |  |  |
|  | YOC4-J23-14 |  |  |  |
|  | YOC4-J23-15 |  |  |  |
|  | YOC4-J23-16 |  |  |  |
|  | YOC4-J23-17 |  |  |  |
|  | YOC4-J23-18 |  |  |  |
|  | YOC4-J23-19 | GND |  |  |
|  | YOC4-J23-20 | VDD3.3V（去耦滤波） |  |  |
|  | YOC4-J23-21 |  |  |  |
|  | YOC4-J23-22 | VDD5.0V |  |  |
|  | YOC4-J23-23 |  |  |  |
|  | YOC4-J23-24 |  |  |  |
| **YOC6(ADC接口)** | | | | |
|  | YOC6-J5-1 | adc\_dat[0] | I |  |
|  | YOC6-J5-2 | **GND** |  |  |
|  | YOC6-J5-3 | adc\_dat[1] | I |  |
|  | YOC6-J5-4 | adc\_dat[2] | I |  |
|  | YOC6-J5-5 | adc\_dat[3] | I |  |
|  | YOC6-J5-6 | adc\_dat[4] | I |  |
|  | YOC6-J5-7 | adc\_dat[5] | I |  |
|  | YOC6-J5-8 | adc\_dat[6] | I |  |
|  | YOC6-J5-9 | adc\_dat[7] | I |  |
|  | YOC6-J5-10 | **GND** |  |  |
|  | YOC6-J5-11 | adc\_dat[8] | I |  |
|  | YOC6-J5-12 | adc\_dat[9] | I |  |
|  | YOC6-J5-13 | adc\_dat[10] | I |  |
|  | YOC6-J5-14 | adc\_dat[11] | I |  |
|  | YOC6-J5-15 | pin\_gpio[0] | IO |  |
|  | YOC6-J5-16 | int\_adc\_o | O | adc中断 |
|  | YOC6-J5-17 | uart1\_tx | IO | PA2 |
|  | YOC6-J5-18 | uart1\_rx | IO | PA3 |
|  | YOC6-J5-19 | **GND** |  |  |
|  | YOC6-J5-20 | **VDD3.3V** |  |  |
|  | YOC6-J5-21 | LED[0] | O | 信号指示LED |
|  | YOC6-J5-22 | **VDD5.0V** |  |  |
|  | YOC6-J5-23 | infrared | I | 红外遥控输入 |
|  | YOC6-J5-24 |  |  | NC |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| LED | | | |  |
|  | D2.2 | LED\_B |  |  |
|  | D2.4 | LED\_G |  |  |
|  | D2.6 | LED\_R | 暂未使用 |  |
| **TEST\_PIN** | | | |  |
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**注意：**

1. PIN脚位置信息，请参考《FMX7A 开发板用户手册》；
2. fpga硬件平台将各复用pin 单独开来，如果需要验证pin复用逻辑则需要更改相关的代码。