Title: ISP8 Sensorboard for Zedboard

File: Size: A3

Drawn by: Avnet

Size: A3

Date: 1/12/2015

Revision: VB

Sheet 1 of 4

Notes:

1. Place as close to sensor as possible.
2. Keep bias and GND traces as short as possible, to avoid capacitive load on the pins.
3. Sensor decoupling: Place as close to sensor as possible.
4. Sensor decoupling capacitors: Place as close to sensor as possible.
ISP8 Sensorboard for Zedboard

Title: ISP8 Sensorboard for Zedboard
Size: A3
Date: 1/12/2015

Used DPAK5 package regulators to be able to dissipate enough power.

Please stay close to regulators and make sure traces are sufficiently wide, refer to datasheet.

Resistance footprint is present to support adjustable regulator versions.

---

**IO expander**

- CAT9554A, 8-bit I2C port expander

**Sensor supplies**

- NCP546A180RPG, 180V Ultra-Fast 1A Low Dropout Linear Regulator with Enable
- NCP546A180RPG, 360V Ultra-Fast 1A Low Dropout Linear Regulator with Enable

**GND testpoints**

---

**Used to power the VDD_PIX supply of the Python5000**

P: (5V - 3V3) * 1mA = 2mW

I: 1mA (max current of the VDD_PIX supply of the Python5000)

3V3: worst case DC power consumption

Resistors/cap footprints are present to support adjustable regulator versions.

Used DPAK5 package regulator to be able to dissipate enough power.

---

**Used to power the 1V8 supply of the Python5000**

I: 306mA (max current of the 1V8 supply of the Python5000)

3V3: worst case power consumption

Resistors/cap footprints are present to support adjustable regulator versions.

Used DPAK5 package regulator to be able to dissipate enough power.

---

**Used to power the VDD_PIX supply of the Python5000**

I: 1mA (max current of the VDD_PIX supply of the Python5000)

P: (5V - 3V3) * 1mA = 2mW

Used to power the VDD_PIX supply of the Python5000

---

**Used to power the 1V8 supply of the Python5000**

I: 306mA (max current of the 1V8 supply of the Python5000)

3V3: worst case power consumption

Resistors/cap footprints are present to support adjustable regulator versions.

Used DPAK5 package regulator to be able to dissipate enough power.

---

**Used to power the VDD_PIX supply of the Python5000**

I: 1mA (max current of the VDD_PIX supply of the Python5000)

P: (5V - 3V3) * 1mA = 2mW

Used to power the VDD_PIX supply of the Python5000