KC705 EVALUATION PLATFORM HW-K7-KC705
(XC7K325T -2 FFG900)

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board please refer to the Bill of Materials delivered for that board. Further device and board information can be found on xilinx.com.

**Kintex-7**

- **Power Supply**
  - 12V Jack
  - Power Controller 1: Switching Regulator 3.3V ±20%
  - Power Controller 2: Switching Regulator 3.3V ±20%
  - Linear Regulator 1.8V ±1.8A
  - Linear Regulator 1.8V ±1.8A
  - Linear Regulator 1.8V ±1.8A
  - Linear Regulator 1.8V ±1.8A
- **IIC Addressing**
  - IIC EEPROM: B0011000
  - IIC MUX: B0101000
  - IIC MUX: B1010000
  - IIC MUX: B1010000
  - IIC MUX: B1010100
  - IIC MUX: B0111001
  - IIC MUX: B0101000
  - IIC MUX: B1011101
- **Ironwood FFG900 Socket**
  - Supports multiple devices
  - Refer to board Bill of Materials to confirm FPGA provided

**Ironwood Block Diagram**

- Title: KC705 Block Diagram
- Author: NA
- Sheet: B
- Size: 2 of 47
- Drawn By: NA
- Date: 4-2-2012 15:15
BYPASS CAPACITORS

**VCCINT** 330μF (5)

**VCCBRAM** 330μF (1) ELEC-TANT-D, 4.7μF (9) 0402

**VCCAUX**

47μF - 1210 (3)

**VCCAUX_IO**

47μF - 1210 (1)

Banks 12, 13, 16, 17, and 18 VADJ VCCO

100μF - 1210 (5)

Banks 14, 15 2.5V VCCO

100μF - 1210 (2)

Banks 32, 33, 34 1.5V VCCO

100μF - 1210 (3)

FPGA Bypass Capacitors
ANSI/VITA 57.1 - Revised 2010

FMC HPC Header, GND

Title: FMC HPC Header, GND
Drawing: 0381397
Part Number: 1280565
Revision: 0.1

Date: 4-2-2012
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Drawn By:
VCCxx_EAP/N are remote sense pairs wired back from power plane connections at FPGA.

PMBus Addr = 53

SCH P/N: 0381397
PCB P/N: 1280565
The diagram shows the connections and components of the FPGA UCD9240 PMBus Controller #2. The PMBUS address is set to 54. The connections are labeled with component designations such as PWRCTL3_VCC3V3A, PMBUS_ADDR, PMBUS_VCC3B_FLT, and so on. The schematic indicates that some connections are wired back from the power plane, with remote sense pairs labeled as VCCxxxx_EAP/N.

The labels and annotations are in a technical format, indicating various electrical connections, components, and part numbers. The diagram includes close-up views of specific areas and additional annotations that are not fully legible in the provided image. For a comprehensive understanding, it is recommended to refer to the full schematic provided in the document.
Linear Power Supplies

V_{OUT} = 0.5 V(1 + R1/R2) + (0.000000015A)(R1)

V_{OUT} = 2.82V

2.8V @ 300mA

1.8V @ 1.5A

5V @ 2A

Refer to datasheet for layout guidelines.

ASSY P/N: 0431641
PCB P/N: 1280565

Title: Linear Power Supplies
ASSY P/N: 0071004
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