TI Power Reference Design for Xilinx® Virtex®-7

Xilinx Virtex-7 FPGA VC709 Evaluation Kit

These links will redirect you to Xilinx's website where you can download the design file.

- Schematic for VC709

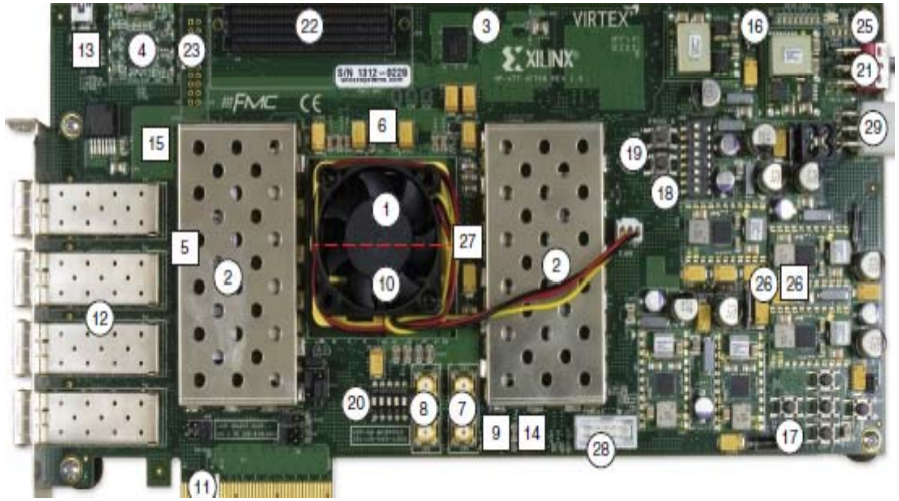
  link
- BOM for VC709

  link
- User Guide for VC709

  link
- Power Tree for VC709

  link
- Gerber Files for VC709

  link



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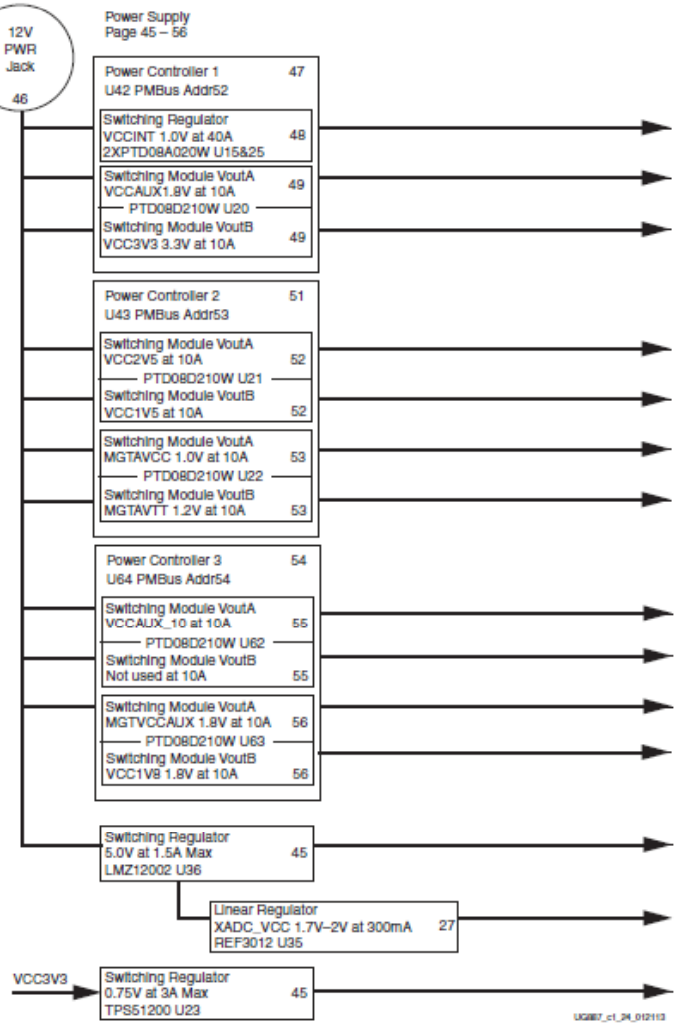

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Device Type	Reference Designator	Description	Power Rail Net Name	Power Rail Voltage	Schematic Page
Core voltage controller and regulators					
UCD9248PFC(1)	U42	PMBus Controller (Addr = 52)			47
PTD08A020W	U25/U15	Dual adjustable switching regulators 40A, 0.6V to 3.6V	VCCINT_FPGA	1.00V	48
PTD08D210W (V_{OUT} A)	U20	½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCCAUX	1.80V	49
PTD08D210W (V_{OUT} B)		½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCC3V3	3.30V	49
Auxiliary voltage controller and regulators					
UCD9248PFC(2)	U43	PMBus Controller (Addr = 53)			51
PTD08D210W (V_{OUT} A)	U21	½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCC2V5_FPGA	2.50V	52
PTD08D210W (V_{OUT} B)		½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCC1V5_FPGA	1.50V	52
PTD08D210W (V_{OUT} A)	U22	½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	MGTAVCC	1.00V	53
PTD08D210W (V_{OUT} B)		½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	MGTAVTT	1.20V	53
UCD9248PFC(3)	U64	PMBus Controller (Addr = 54)			54
PTD08D210W (V_{OUT} A)	U62	½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCCAUX_IO	2.00V	55
PTD08D210W (V_{OUT} B)		½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	NOT USED	1.00V	55
PTD08D210W (V_{OUT} A)	U63	½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	MGTVCCAUX	1.80V	56
PTD08D210W (V_{OUT} B)		½ of adjustable switching regulator dual 10A, 0.6V to 3.6V	VCC1V8_FPGA (4)	1.80V	56
Linear regulators					
LMZ12002	U36	Fixed linear regulator 2A	VCC5V0	5.00V	45
TPS51200DR	U23	Tracking regulator, 3A	VTTDDR	0.75V	45
ADP123	U10	Fixed linear regulator, 300 mA	XADC_VCC	1.80V	27
REF3012	U35	Fixed linear voltage reference	XADC_VREF	1.25V	27

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