

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

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- User Guide for VC709

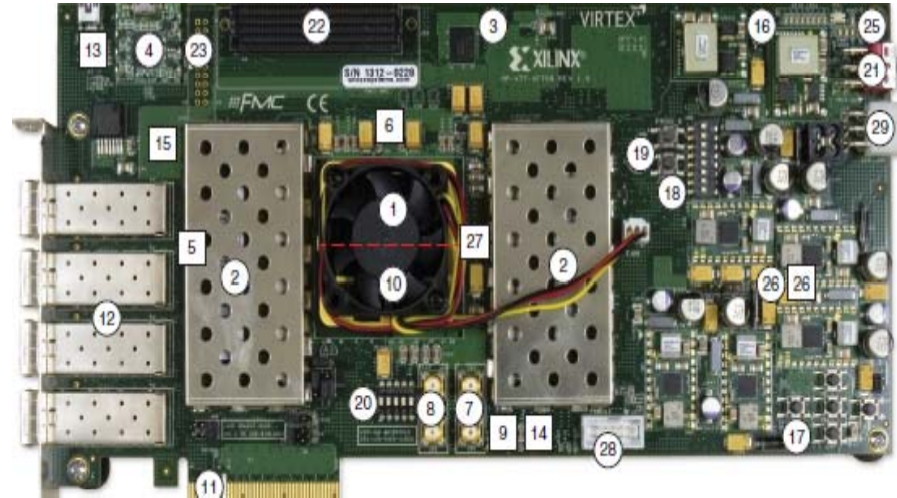
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- Power Tree for VC709

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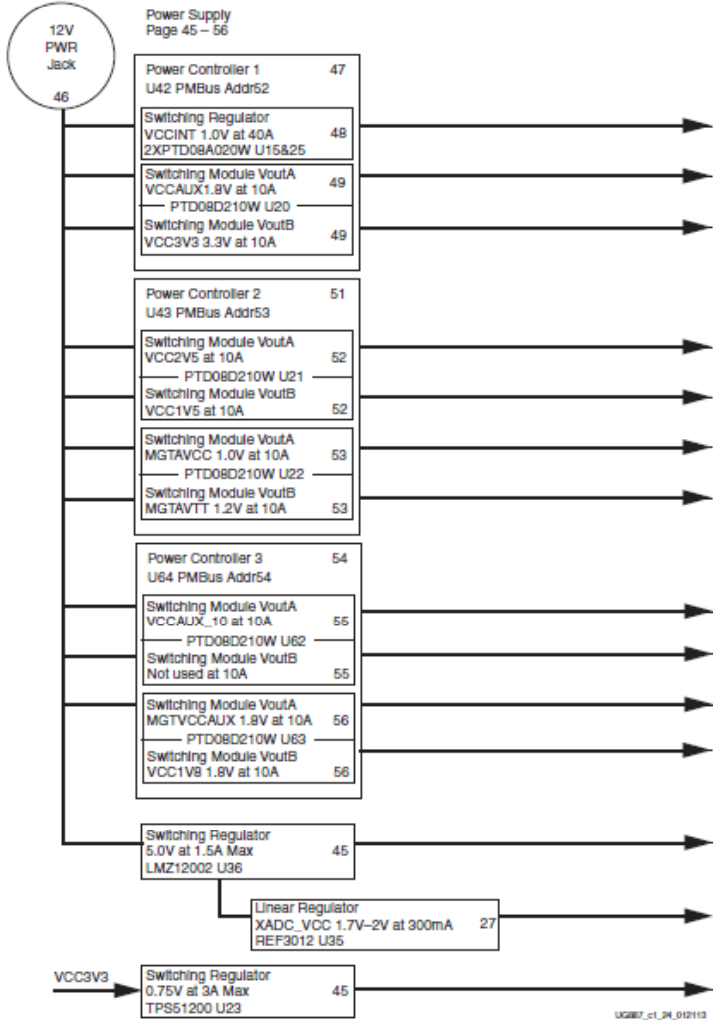
- Gerber Files for VC709

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Device Type	Reference Designator	Description	Power Rail Net Name	Power Rail Voltage	Schematic Page
Core voltage controller and regulators					
UCD9248PPC ⁽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					
UCD9248PPC ⁽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
UCD9248PPC⁽³⁾					
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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