

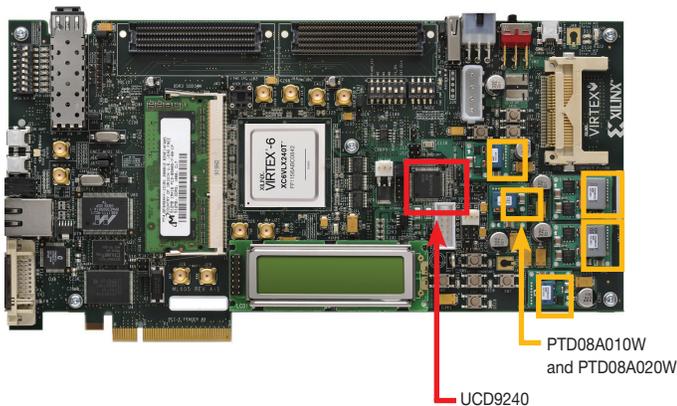
Power for Xilinx® Virtex®-6 and Spartan®-6 FPGAs



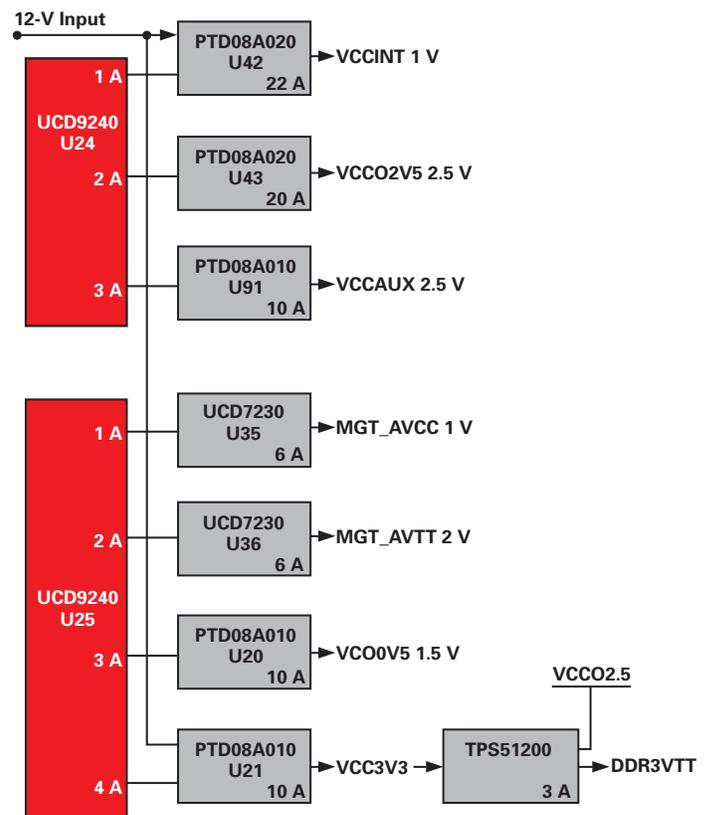
Selection Guide

Texas Instruments (TI) provides robust power management solutions for the new Xilinx® Virtex®-6 FPGA ML605 Evaluation Kit. TI's power management products simplify the power design process while providing the lower power required for demanding, high-performance system designs.

ML605 Evaluation Kit



ML605 Power Block Diagram



TI Digital Power devices included on the Xilinx® ML605 board:

- PTD08A010W
- PTD08A020W
- TPS3808G25
- TPS51100
- UCD9240

Other TI devices included on the ML605 board:

- CD74HC4051
- INA333
- SN74LVC1G18
- SN74LVC2G08
- TL1963
- TPS73633
- TPS79518
- TS321
- UCD7230
- REF3012

For more information visit:
www.ti.com/xilinfpga or www.ti.com/digitalpower

TI Power Solutions for Xilinx® Virtex®-6 and Spartan®-6 FPGAs

Device	Regulator Type	V _{IN} max (V)	V _{IN} min (V)	I _{OUT} (A)	V _{OUT} max (V)	V _{OUT} min (V)	Operation Control ¹
TPS5410/20/30	Integrated FET	36	5.5	1/2/3	30	1.23	EN
TPS54218	Integrated FET	6	3	2	4.5	0.9	EN, PG, SS, SYNC
TPS54550	Integrated FET	20	4.5	6	12	0.9	EN, PG, SS, SYNC
TPS54620	Integrated FET	17	4.5	6	15	0.8	EN, PG, SS, SYNC, SEQ
TPS54880	Integrated FET	6	4	8	3.3	0.9	PG
TPS54910	Integrated FET	4	3	9	2.5	0.9	EN, PG, SS, SYNC
TPS54383	Dual integrated FET	28	4.5	3 and 3	25	0.8	EN, SEQ
TPS62290	Integrated FET	6	2.3	1	6	0.6	UVLO
TPS62040	Integrated FET	6	2.5	1.2	6	0.7	UVLO
PTH08T260W	Module	14	4.5	3	5.5	0.7	AT, EN, TT, SYNC
PTH08T230W	Module	14	4.5	6	5.5	0.7	AT, EN, TT, SYNC
PTH08T240W	Module	14	4.5	10	5.5	0.7	AT, EN, TT, SYNC, POLA
PTH08T220W	Module	14	4.5	16	5.5	0.7	AT, EN, TT, SYNC, POLA
PTH08T210W	Module	14	5.5	30	3.6	0.7	AT, EN, TT, POLA
PTH08T250W	Module	14	4.5	50	3.6	0.7	AT, EN, TT, SYNC, POLA
TPS40041 ³	Controller	5.5	2.25	15	4.88	0.6	—
TPS40190/2/3 ³	Controller	15/18	4.5	20	12.75	0.59	—
TPS40100 ³	Controller	18	4.5	20	5.5	0.7	PG, SYNC
TPS40400 ³	Controller w/I ² C	20	3	25	18	0.6	—
UCD9220	DP controller	—	—	—	—	—	EN, PG, Track, SYNC, SEQ, MON
UCD9240 ²	DP controller	—	—	—	—	—	Digital
UCD7230 ²	Power stage	15	4.5	—	—	—	Digital
UCD7242	Dual power stage	—	—	—	—	—	Digital
PTD08A006W	Power stage	14	4.75	6	3.6	0.7	Digital
PTD08A010W ²	Power stage	14	4.75	10	3.6	0.7	Digital
PTD08A020W ²	Power stage	14	4.75	20	3.6	0.7	Digital
PTD08D210W	Dual power stage	14	4.75	10 and 10	3.6	0.7	Digital
TPS744xx	LDO 0.8 to 3.3	—	—	3	3.3	0.8	EN, PG, SS
TPS749xx	LDO 0.8 to 3.3	—	—	3	3.3	0.8	EN, PG, SS
TPS3808 ²	1 Channel SVS	—	—	—	—	—	RESET
TPS386000	4 Channel SVS	—	—	—	—	—	EN, SEQ, RESET

TI Power Solutions for DDR

TPS51100 ²	DDR termination	3.6	1.2	3	—	—	1/2 VTT
TPS51200	DDR termination	3.5	1.1	3	—	—	1/2 VTT

¹ EN = Enable, PG = Power Good, SS = Soft Start, Sync = Synchronize switching frequency, UVLO = Under voltage lockout, AT = Auto Track, TT = Turbo Trans, POLA = Point of Load Association, Digital = GUI control of the functions.

² Devices included on the Xilinx ML605 board.

³ For best operation use TI NexFETs™.

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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