



Power Management Solutions for Xilinx Programmable Logic Devices

VIRTEX-II PRO™ & VIRTEX™-II Core Voltage: 1.5V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V	LT [®] 3020 Linear LTC [®] 3025 Linear LT1962 Linear LTC3409 Buck	LT3021 Linear LT1763 Linear LTC3409 Buck	LTC3026 Linear	LT3150 Linear Controller	LTC3713 Controller	LTC3713 Controller
2.5V to 5V	LT3020 Linear LTC3025 Linear LT1962 Linear LTC3405A-1.5 Buck	LT3021 Linear LT1763 Linear LTC3406-1.5 Buck	LTC3026 Linear LT1963A Linear LTC3412A Buck	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller LTC1773 Controller	LTC3713 Controller LTC3832 Controller LTC1778 Controller LTC3778 Controller
≤12V to 24V	LT3470 Buck LT1616 Buck	LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LTC1771 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3770 Controller

VIRTEX-E, Spartan-IIE & CoolRunner™-II Core Voltage: 1.8V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V	LT1613 SEPIC	LT1949 SEPIC	LT1618 SEPIC LT1308 SEPIC	LTC3713 Controller	LTC3713 Controller	LTC3713 Controller
2.5V to 5V	LT3020 Linear LTC3025 Linear LT1962 Linear LTC3405A-1.8 Buck	LT3021 Linear LT1763 Linear LTC3406-1.8 Buck	LTC3026 Linear LT1963A Linear LTC3412 Buck	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller LTC1773 Controller	LTC3713 Controller LTC3832 Controller LTC1778 Controller LTC3778 Controller
≤12V to 24V	LT3470 Buck LT1616 Buck	LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LTC1771 Controller LTC1778 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3770 Controller LTC3778 Controller

VIRTEX-4™ & Spartan™-3 Core Voltage: 1.2V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V	LT3020 Linear LTC3025 Linear LT1962 Linear LTC3409 Buck	LT3021 Linear LT1763 Linear LTC3409 Buck	LTC3026 Linear LT3150 Linear	LT3150 Linear	LTC3713 Controller	LTC3713 Controller
2.5V to 5V	LTC3405A Buck	LTC3406 Buck-1.2	LTC3412 Buck LTC3808/9 Controller	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller LTC1773 Controller	LTC3713 Controller LTC3832 Controller LTC1778 Controller LTC3778 Controller
≤12V to 24V	LT3470 Buck LT1616 Buck	LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LTC1771 Controller LTC1778 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3770 Controller LTC3778 Controller

Spartan-II Core Voltage: 2.5V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V	LTC3429 Boost LTC3499 Boost LTC3400 Boost	LTC3426 Boost LTC3402 Boost	LTC3428 Boost LTC3426 Boost LTC3402 Boost	LTC3421 Boost LTC1872 Boost Controller	LTC3425 Boost LTC1700 Boost Controller	LT1619 Controller
2.5V to 5V	LT3020 Linear LTC3025 Linear LT1962 Linear LTC3405A Buck	LT3021 Linear LT1763 Linear LTC3406-1.8 Buck	LTC3412 Buck LT1619 SEPIC Ctrlr	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller LT1619 SEPIC Ctrlr	LTC3414 Buck LTC3808/9 Controller LTC3801 Controller LTC1773 Controller	LTC3713 Controller LTC3832 Controller LTC1778 Controller LTC1682 + LTC1778
≤12V to 24V	LT3470 Buck LT1616 Buck LT1933 Buck	LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LTC1771 Controller LTC1778 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3778 Controller LTC3770 Controller

CoolRunner XPLA3 & XC9500XL

Core Voltage: 3.3V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V to 2.5V	LTC3429 Boost LTC3499 Boost LTC3400 Boost LT1613 Boost	LTC3426 Boost LTC3421 Boost LTC3402 Boost LT1949 Boost	LTC3421 Boost LTC3426 Boost LTC3428 Boost LT1963A Linear	LTC3421 Boost LT1619 Controller LTC3428 Boost	LTC3425 Boost LTC3713 Controller	LTC3713 Controller
3.3V	LTC3440 Buck-Boost	LTC3440 Buck-Boost LTC3443 Buck-Boost	LTC3442 Buck-Boost LTC3443 Buck-Boost LTC1871 SEPIC Ctrlr LT1372 SEPIC	LTC1871 SEPIC Ctrlr LTC1872 SEPIC Ctrlr	LT1619 SEPIC Ctrlr	LTC1682 + LTC1778
≤5V	LT3020 Linear LTC3025 Linear LT1962 Linear LTC3405A Buck	LT3021 Linear LT1763 Linear LTC3406 Buck	LTC3026 Linear LTC3412 Buck	LTC3414 Buck LTC3808/9 Controller	LTC3414 Buck LTC3418 Buck LTC3808/9 Controller	LTC1778 Controller LTC3832 Controller
≤12V to 24V	LT3470 Buck LT1934 Buck LT1933 Buck	LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LT1778 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3778 Controller LTC3770 Controller

XC9500 (5V)

Core Voltage: 5V

Input Supply	≤200mA	≤500mA	≤1A – 1.5A	≤2A – 2.5A	≤3A – 5A	≤25A
1.8V to 3.3	LTC3429 Boost LTC3499 Boost LTC3400 Boost LT1613 Boost	LTC3426 Boost LTC3402 Boost LT3467 Boost LT1949 Boost	LTC3426 Boost LTC3421 Boost LTC3428 Boost	LTC3421 Boost LTC3428 Boost LT1619 Controller	LTC3425 Boost LTC3713 Controller	LTC3713 Controller
5V	LT3433 Buck-Boost LTC3429 + LT3020 LDO	LTC1871 SEPIC Ctrlr LTC3458 + LT3021 LDO	LTC1871 SEPIC Ctrlr LT1372 SEPIC	LTC1871 SEPIC Ctrlr LTC1872 SEPIC Ctrlr	LTC1871 SEPIC Ctrlr LT1619 SEPIC Ctrlr	LTC1682 + LTC1778
≤12V to 24V	LT3020 Linear LT1962 Linear LT3470 Buck LT1934 Buck	LT1763 Linear LT1976 Buck LT1767 Buck	LT1936 Buck LT1976 Buck LT3431 Buck LTC1778 Controller	LT3431 Buck LT1778 Controller	LTC1778 Controller LTC3770 Controller	LTC1778 Controller LTC3778 Controller LTC3770 Controller

Dual Output DC-DC Converters

Part Number	Architecture	Input Voltage Range (V)	$I_{OUT(1)}$ max (A)	$I_{OUT(2)}$ max (A)	Minimum V_{OUT} (V)	Notes
LT3023	Linear	1.8 – 20	0.1	0.1	1.22	3mm × 3mm DFN-10
LT3027	Linear	1.8 – 20	0.1	0.1	1.22	3mm × 3mm DFN-10
LT3024	Linear	1.8 – 20	0.1	0.5	1.22	4mm × 3mm DFN-12
LT3028	Linear	1.8 – 20	0.1	0.5	1.22	5mm × 3mm DFN-16
LTC3407	Monolithic Switcher	2.5 – 5.5	0.6	0.6	0.6	
LTC3548	Monolithic Switcher	2.5 – 5.5	0.4	0.8	0.6	
LTC3407-2	Monolithic Switcher	2.5 – 5.5	0.8	0.8	0.6	
LTC3417	Monolithic Switcher	1.6 – 5.5	0.8	1.4	0.8	
LTC3736	Switcher Controller	2.7 – 9.8	5	5	0.6	
LTC3736-1	Switcher Controller	2.7 – 9.8	5	5	0.6	Spread Spectrum Freq. Modulation
LTC3737	Switcher Controller	2.7 – 9.8	5	5	0.6	Non-Synchronous
LTC3776	Switcher Controller	2.7 – 9.8	5	5	0.6	For DDR Memory (V_{TT} and V_{DDQ})
LTC3708	Switcher Controller	4 – 36	20	20	0.6	Fast Transient Response, Tracking
LTC3828	Switcher Controller	4.5 – 28	20	20	0.8	Constant Frequency, Tracking
LTC3728L	Switcher Controller	4 – 30	20	20	0.8	Lower Voltage LTC3728

DC/DC Converters with Tracking

- LTC3416 Switcher, 4A
- LTC3417 Dual Switcher, 1.4A
- LTC3418 Switcher, 8A
- LTC3736/-1 Dual Controller, 5A
- LTC3737 Dual Controller, 5A, Non-Sync
- LTC3708 Dual Controller, 20A
- LTC3709 Controller, 40A

- LTC3828 Dual Controller, 20A
- LTC3770 Dual Controller, 20A, Tracking, Margining

Trackers/Sequencers

- LTC2923 Three Input Tracker/Sequencer
- LTC2924 Six Input Sequencer
- LTC2925 Four Input Tracking/Sequencer

DDR Memory Termination

- LTC3413 Switcher, 3A
- LTC3717 Controller, 20A
- LTC3718 Controller, 20A, 1.5V V_{IN} MIN
- LTC3776 Controller (V_{TT} and V_{DDQ}), 5A

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