

Boost Power Converters

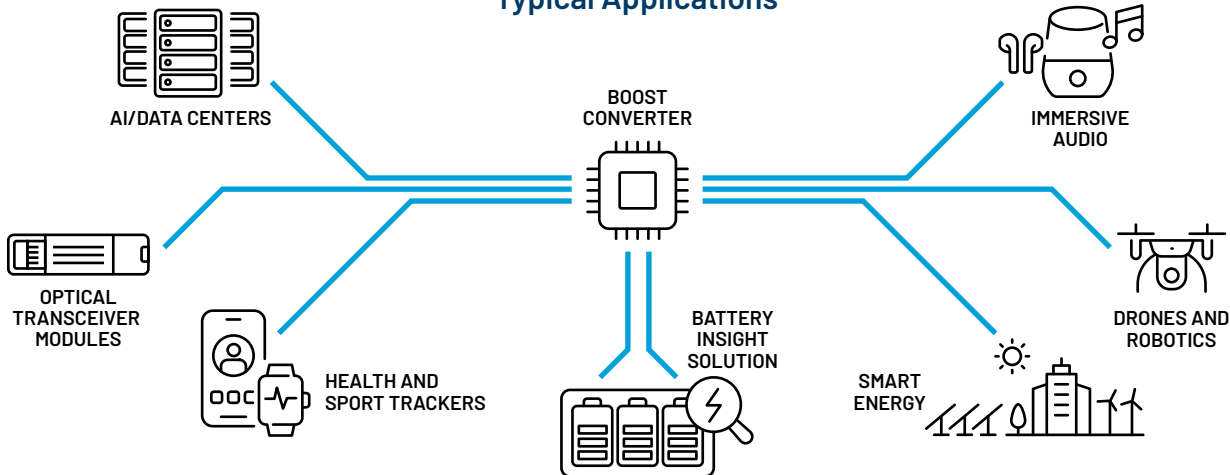


Supercharge your circuit with internal power switch boost converters. Discover whisper-quiet, ultra efficient, step-up converters packed with features.

Boost regulators with Silent Switcher® technology drastically reduce EMI and maximizes performance in minimal space. The combination of low quiescent current, high power density, and Silent Switcher technology optimizes battery life and supports compact, noise-sensitive, reliable designs for demanding portable and industrial applications, as well as RF applications, medical systems, and precision analog systems.

- Integrated power switches eliminate the need for additional external components
- Integrated FET switches in a synchronous architecture improve efficiency
- Integrated diodes in a nonsynchronous architecture reduce switching noise

Typical Applications

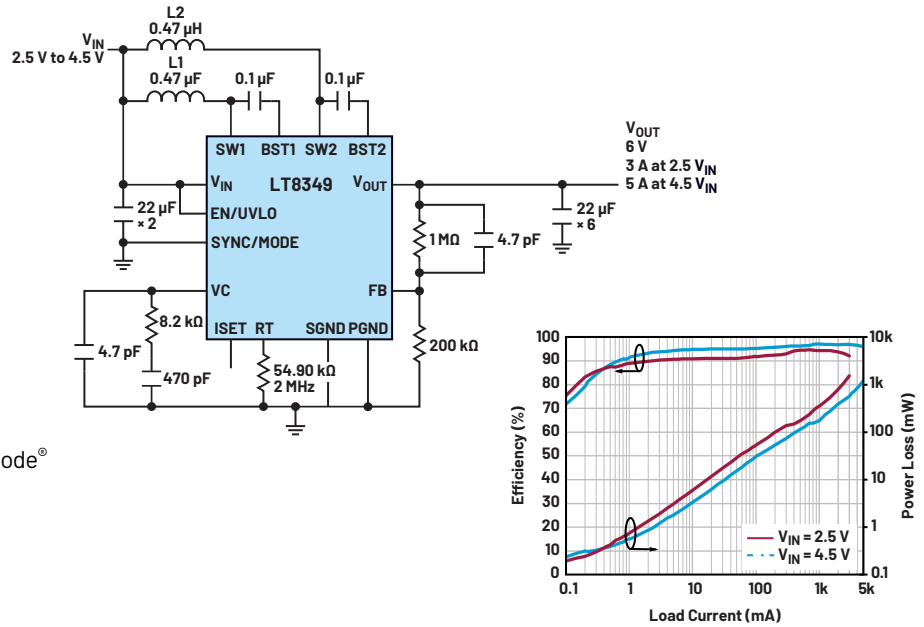


5.5 V_{IN} Boost Converters

LT8349

8 V, 12 A, 2-Phase, Low I_Q Synchronous Boost Converter

- 2-phase operation for 12 A operation
 - Integrated 8 V/6 A synchronous power switches
- Accurate 1 V enable pin threshold
- Adjustable and synchronizable from 300 kHz to 4 MHz range
- Low quiescent current:
 - 0.5 μA in shutdown, 15 μA in Burst Mode[®]
- Output soft start, OV lockout
- Burst Mode or FCM operation



5.5 V_{IN} Boost Converters

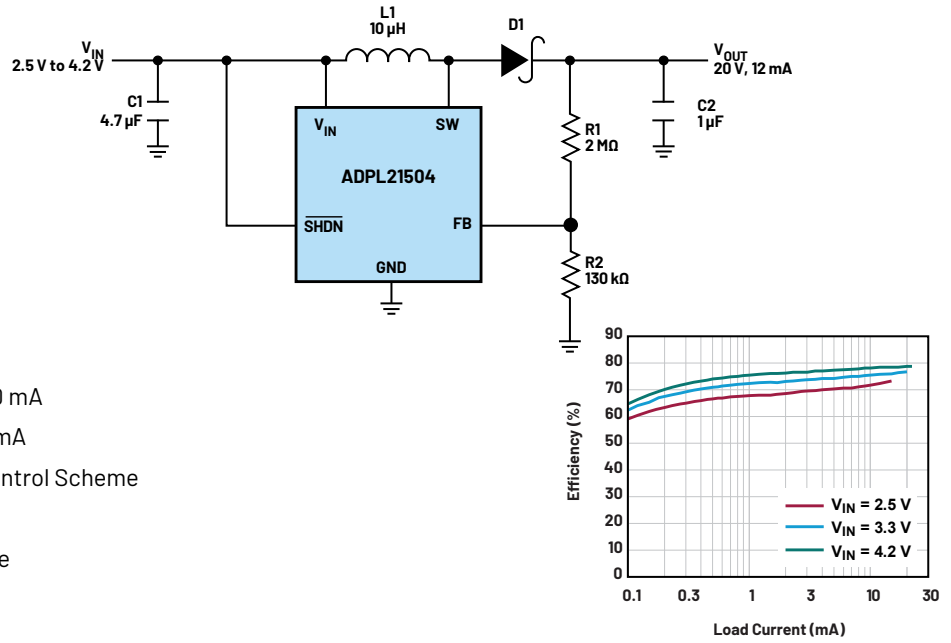
Part Number	V _{IN} Range (V)	V _{OUT} Range (V)	I _{SWO, PEAK} (A)	SW Freq (kHz)	I _Q (μA)	Features	Synchronous	V _{OUT} Control	Package (mm × mm)
MAX17223	2.75 to 4.8	11.2 to 16.2	0.01	TBC	125	Low noise, sync	Yes	Fixed	1.24 × 1.24, 9-ball WLP
MAX1605	2.4 to 5.5	0.8 to 30	0.02	Up to 500	18	High efficiency	No	Adj	6-lead SOT-23, 3 × 3, 6-lead TDFN
LTC3459	1.5 to 5.5	2.5 to 10	0.075	10	–	High efficiency, low I _Q	Yes	Adj	2 × 2, 6-lead DFN, 2 × 3, 6-lead DFN, 6-lead SOT-23
MAX17220/ MAX17221	0.4 to 5.5	1.8 to 5	0.225	–	0.47	Low I _Q , true shutdown	Yes	Adj	2 × 3, 6-lead μDFN, 0.9 × 1.4, 6-ball WLP
LTC3108	0.02 to 0.5	2.35 to 5	0.3	–	–	Power manager, LDO	Yes	Prog	3 × 4, 12-lead DFN, 16-lead SSOP
LTC3525	0.85 to 4.5	3 to 5	0.4	–	7	High efficiency, Burst Mode, output disconnect	Yes	Fixed	6-lead SC70
MAX17227J	0.4 to 5.5	2.3 to 5.2	2	–	0.35	High efficiency, active discharge, short-circuit protection, PassThru™ mode	Yes	S. res adj	1.6 × 0.9, 6-ball WLP, 2 × 2, 8-lead TDFN
LTC3526/ LTC3535	0.8 to 1.5	1.5 to 5.25	0.55	1000	9	Dual-channel, Burst Mode, output disconnect	Yes	Adj	2 × 2, 6-lead DFN, 3 × 3, 12-lead DFN
LTC3400-1	0.85 to 2	2.5 to 5	0.6	1200	–	–	Yes	Adj	6-lead SOT-23
MAX20471/ MAX20472	3 to 4	3.8 to 5.25	1	2200	130	SSEN, RESET, true output shutdown	Yes	Fixed	3 × 3, 12-lead TDFN, 8-lead SOIC
ADPL20502	0.6 to 5.5	2.3 to 5.2	2	–	0.5	High efficiency, true shutdown	Yes	S. res adj	2 × 2, 8-lead DFN, 1.6 × 0.9, 6-ball WLP
LTC3458	1.5 to 6	2.0 to 7.5	1.4	Adj up 1500	15	High efficiency, output disconnect, inrush current limit	Yes	Adj	3 × 4, 12-lead DFN
LTC3426	1.6 to 4.3	2.25 to 5	2	1200	600	Soft start	Yes	Adj	6-lead, SOT-23
LTC3428	1.6 to 4.5	1.6 to 5.25	4	2000	100	High efficiency, dual-phase	No	Adj	3 × 3, 10-lead DFN
MAX20474	3 to 5.5	6 to 18	4	2200	400	RESET, spread spectrum, CM, FPWM, SKIP	Yes	Adj	3 × 3.4, 14-lead TDFN
LT8349	2.5 to 5.5	Up to 8	12	300 to 4000	7600	Dual-phase	No	Adj	1.9 × 2.6, 35-ball WLCSOP

20 V_{IN} Boost Converters

ADPL21501/ADPL21504 Balanced Solution

Micropower Step-Up DC-to-DC Converter in a ThinSOT Package

- Low Quiescent Current:
 - 20 µA in Active Mode
 - <2 µA in Shutdown Mode
- Operates with a V_{IN} as Low as 1 V
- Low VCESAT Switch: 270 mV at 300 mA
- Switch Current Limit: 100 mA/350 mA
- Current-Limited, Fixed Off-Time Control Scheme
- High Output Voltage: Up to 30 V
- Low Profile (1 mm) ThinSOT Package



>20 V _{IN} Boost Converters									
Part Number	V _{IN} Range (V)	V _{OUT} Max (V)	I _{SWO, PEAK} (A)	SW Freq (kHz)	I _o (µA)	Features	Synchronous	V _{OUT} Control	Package (mm × mm)
LT8410	2.25 to 16	40	0.025	–	8.5	Int output disconnect, int Schottky, low noise	No	Adj	8-lead SOT-23
LT3464	2 to 10	34	0.08	–	25	Micropower, int output disconnect, int Schottky	No	Adj	8-lead SOT-23
ADPL21501	1 to 15	30	0.1	–	20	Low V _{IN} , micropower	No	Adj	5-lead SOT-23
LT3494	2.3 to 16	38	0.18	–	65	Micropower, low noise, int output disconnect	No	S. res adj	3 × 2, 8-lead DFN
LT1615	1.2 to 15	36	0.35	–	20	Low V _{IN} , micropower	No	Adj	5-lead SOT-23
LT3461A	2.5 to 16	38	0.42	3000	2800	High F _{SW} , int Schottky	No	Adj	6-lead TSOT-23
MAX618	3 to 28	36	0.8	250	500	High efficiency	No	Adj	16-lead QSOP
LT3467/ LT3467A	2.2 to 16	40	1.1	1300/ 2100	1200	High F _{SW} , AEC-Q100	No	Adj	3 × 2, 8-lead DFN, 6-lead TSOT
LT1961	3 to 25	35	2	1250	900	High F _{SW} , high efficiency	No	Adj	8-lead MSOP
LT1618	1.6 to 18	36	2.1	1400	1800	Const current/voltage	No	Adj	3 × 3, 10-lead DFN, 10-lead MSOP
LT1308A	1 to 10	34	3	600	140	Low V _{IN}	No	Adj	8-lead SO 14-lead TSSOP
LT8335	3 to 25	28	2.5	2000	5.5	Low I _o , multimode	No	Adj	3 × 2, 8-lead DFN
LT3581	2.3 to 22	42	4.3	200 to 2500	1900	Multimode	No	Adj	4 × 3, 14-lead DFN, 16-lead MSOP
LT8337	2.7 to 28	26	6	300 to 3000	4	PassThru, low I _o , PG	Yes	Adj	3 × 3, 16-lead LQFN

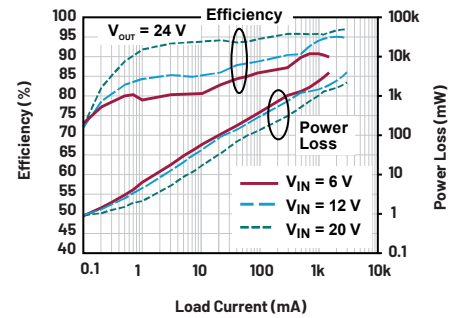
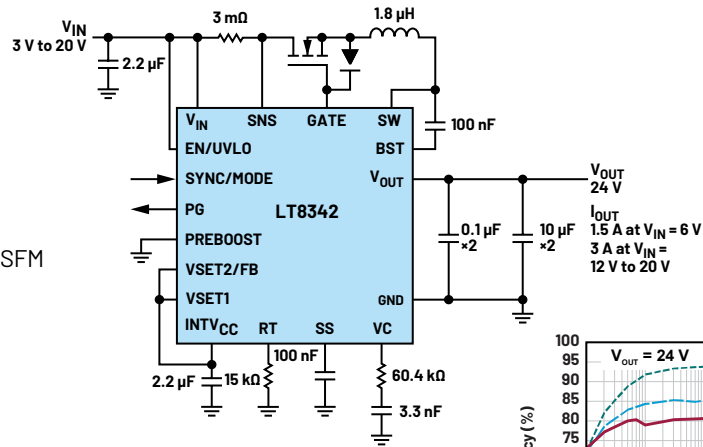
Multimode configurations: SEPIC, INVERTING, BOOST, FLYBACK

>30 V_{IN} Boost Converters

LT8342

40 V, 9 A, Low I_Q Synchronous Step-Up Silent Switcher Device with Input Disconnect and PassThru Technology

- Ultralow EMI Emissions/Optional SSFM
- Low V_{IN} Pin Quiescent Current
- Output Short Protection/ Inrush Current Reduction
- Output Voltage Programmable up to 36 V
- 100% Duty Cycle Capability
- Adjustable and Synchronizable: 300 kHz to 3 MHz



>30 V _{IN} Boost Converters									
Part Number	V _{IN} Range (V)	V _{OUT} Max (V)	I _{SWO, PEAK} (A)	SW Freq (kHz)	I _Q (μA)	Features	Synchronous	V _{OUT} Control	Package (mm × mm)
LT8331	4.5 to 100	140	0.6	100 to 500	5.5	Multimode, low I _Q , AEC-Q100	No	Adj	16-lead MSOP
LT8330	3 to 40	60	1.2	2000	5.5	Multimode, low I _Q , AEC-Q100	No	Adj	3 × 2, 8-lead DFN, 6-lead TSOT-23
LT8338	3 to 40	40	1.4	300 to 3000	6	PassThru, low I _Q , AEC-Q100	Yes	Adj	10-lead MSOP
LT8365	2.8 to 60	150	2	100 to 500	9	Low I _Q , AEC-Q100	No	Adj	16-lead MSOP
LT8361	2.8 to 60	100	2.5	300 to 2000	22	Low I _Q , inverting, AEC-Q100	No	Adj	16-lead MSOP
LT3580	2.5 to 32	42	2.5	200 to 2500	1000	Inverting	No	S. res adj	3 × 3, 8-lead DFN, 8-lead MSOP
LT8336	2.7 to 40	40	3	300 to 3000	4	Low I _Q , Silent Switcher, PassThru, AEC-Q100	Yes	Adj	3 × 3, 16-lead LQFN
LT8364	2.8 to 60	60	5	300 to 2000	9	Low I _Q , multimode, AEC-Q100	No	Adj	3 × 4, 12-lead DFN, 16-lead MSOP
LT8342	2.8 to 40	36	10.3	300 to 3000	9	Low I _Q , Silent Switcher, PassThru	Yes	Adj digi	4 × 4, 24-lead LQFN

Multimode configurations: SEPIC, INVERTING, BOOST, FLYBACK

Power Management Tools

ADI Power Studio™ is a comprehensive family of tools for the complete power design journey. It brings discovery, design, simulation, configuration, and measurement together in one ecosystem—helping engineers build efficient, reliable systems faster and with greater confidence.

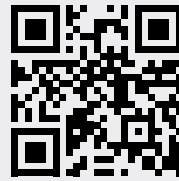


ADI Power

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BR26058-2/26