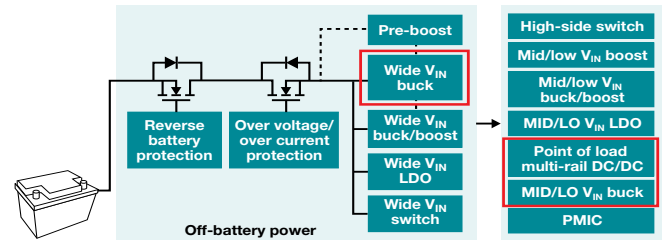


Automotive Infotainment Buck Converter/Controller Quick Selection Guide



The latest and best buck regulators for infotainment, all in one place.

From head units to telematics and everywhere in between, infotainment applications have very specific requirements when it comes to buck regulators. In the guide you will find the newest and best buck converters and controllers with key features like low quiescent current, high switching frequency, low EMI, and more.



500mA to 1.5 A Wide V_{IN} Buck Converter

Part number	V_{IN-max} (V)	F_{SW}	SSC	Low I_Q	Package	Special features
LMR36503-Q1 (0.3A)	65	Adjustable	✓	✓	2x2mm HotRod QFN wettable flanks	Ultra-low I_Q ; 65V max input voltage
LM53600-Q1 (0.5A)	36	2.1 MHz	✓	✓	QFN/DAP wettable flanks	Excellent EMI performance
LMR36006-Q1 (0.6A)	60	Adjustable	✓	✓	2x3mm HotRod QFN wettable flanks	Reduced BOM cost
LMR34206-Q1 (0.6A)	42	Adjustable	✓	✓	2x3mm HotRod QFN wettable flanks	Reduced BOM cost
TPS560430-Q1 (0.6A)	36	2.1 MHz	–	–	SOT-23	Very low BOM cost
LMR36506-Q1 (0.6A)	65	Adjustable	✓	✓	2x2mm HotRod QFN wettable flanks	Ultra-low I_Q ; 65V max input voltage
LM53601-Q1 (1A)	36	2.1 MHz	✓	✓	FN / DAP wettable flanks	Excellent EMI performance
LM63610-Q1 (1A)	36	Adjustable	✓	✓	HTSSOP / WSON	Excellent EMI performance; reduced BOM cost
LMR50410-Q1 (1A)	36	2.1 MHz	–	–	SOT-23	Very low BOM cost
LMR34215-Q1 (1.5A)	42	Adjustable	✓	✓	2x3mm HotRod QFN wettable flanks	Reduced BOM cost
LMR36015-Q1 (1.5A)	60	Adjustable	✓	✓	2x3mm HotRod QFN wettable flanks	Reduced BOM cost
LM63615-Q1 (1.5A)	36	Adjustable	✓	✓	HTSSOP / WSON	Excellent EMI performance; reduced BOM cost

2A to 4A Wide V_{IN} Buck Converter

Part number	V_{IN} -max (V)	F _{sw}	SSC	Low I _q	Package	Special features
LMR33620-Q1 (2A)	36	400kHz, 2.1MHz	–	✓	2x3mm HotRod QFN wettable flanks	Excellent efficiency; small solution size
LMR23625-Q1 (2.5A)	36	Adjustable	–	–	SOIC / WSON	Reduced BOM cost
LM63625-Q1 (2.5A)	36	Adjustable	✓	✓	HTSSOP / WSON	Excellent EMI performance; reduced BOM cost
LM53625-Q1 (2.5A)	36	2.1MHz	✓	✓	HotRod QFN wettable flanks	Excellent EMI performance
LMR33630-Q1 (3A)	36	400kHz, 2.1MHz	–	✓	2x3mm HotRod QFN wettable flanks	Excellent efficiency; small solution size
LM60430-Q1 (3A)	36	400kHz	–	✓	2x3mm Enhanced QFN wettable flanks	Excellent thermal performance
LM63635-Q1 (3.25A)	32V _{IN} (HTSSOP); 36V _{IN} (WSON)	Adjustable	✓	✓	HTSSOP / WSON	Excellent EMI performance; reduced BOM Cost
LM53635-Q1 (3.5A)	36	2.1MHz	✓	✓	HotRod QFN wettable flanks	Excellent EMI performance; LMS3635-Q1 version for 3.5A at 440kHz
LM61(2)435-Q1 (3.5A)	36	Adjustable; 2.1MHz	✓	✓	3.5x4mm HotRod QFN wettable flanks	Excellent EMI performance
LM60440-Q1 (4A)	36	400kHz	–	✓	2x3mm Enhanced QFN wettable flanks	Excellent thermal performance
LM61(2)440-Q1 (4A)	36	Adjustable; 2.1MHz	✓	✓	3.5x4mm HotRod QFN wettable flanks	Excellent EMI performance
LMQ62440-Q1	36	2.1MHz	✓	✓	3.5x4mm HotRod QFN wettable flanks	Excellent EMI performance; integrated bypass capacitors

>5A+ Wide V_{IN} Buck Converter

Part number	V_{IN} -max (V)	F _{sw}	SSC	Low I _q	Package	Special features
LM73605-Q1 (5A)	36	Adjustable	–	–	QFN wettable flanks	Excellent thermal performance
LMS3655-Q1 (5.5A)	36	440kHz	✓	✓	HotRod QFN wettable flanks	Pin compatible with LM53635-Q1 2.1MHz
LM73606-Q1 (6A)	36	Adjustable	–	–	QFN wettable flanks	Excellent thermal performance
LM61460-Q1 (6A)	36	Adjustable	✓	✓	3.5x4mm HotRod QFN wettable flanks	Excellent EMI performance
LMQ61460-Q1 (6A)	36	2.1MHz	✓	✓	3.5x4mm HotRod QFN wettable flanks	Excellent EMI performance; integrated bypass capacitors
LM62460-Q1 (6A)	36	2.1MHz	✓	✓	3.5x4.5mm HotRod QFN wettable flanks	Excellent EMI performance; excellent power density
LM61480-Q1 (8A)	36	2.1MHz	✓	✓	3.5x4.5mm HotRod QFN wettable flanks	Excellent EMI performance; excellent power density
LM61495-Q1 (10A)	36	2.1MHz	✓	✓	3.5x4.5mm HotRod QFN wettable flanks	Excellent EMI performance; excellent power density

>5A Wide V_{IN} Buck Controller

Part number	Dual phase / dual output	Control mode	V_{IN} -max (V)	Special features
LM25149-Q1	–	Current	3.5 to 42	Active EMI filter
LM5143-Q1	✓	Current	3.8 to 65	4-phase possible with two LM5143-Q1
LM5140-Q1	✓	Current	3.8 to 65	Dual version of LM5141-Q1
LM5141-Q1	–	Current	3.8 to 65	42V version also available: LM25141-Q1
LM5146-Q1	–	Voltage	5.5 to 100	
LM5145-Q1	–	Voltage	6 to 75	

Single-Output PoL Buck Converter

Part number	V_{IN} -max (V)	F_{sw}	SSC	Low I_Q	Package (package size)	Special features
TPS62811-Q1 (1A) TPS62812-Q1 (2A) TPS62813-Q1 (3A) TPS62810-Q1 (4A) TPS62816-Q1 (6A)	6	1.8 to 4MHz (fixed)	✓ (optional)	✓	HotRod QFN (2x3mm) wettable flanks	1% accuracy, up to 150C Tj; pin-to-pin scalable output current family
TPS628501-Q1 (1A) TPS628502-Q1 (2A)	6	1.8 to 4MHz (fixed)	✓ (optional)	✓	SOT583 (1.2x2.1mm)	BOM and cost effective
TPS62130A-Q1 (3A)	17	1.25MHz to 2.5MHz	–	✓	QFN (3x3mm)	
TPS62160-Q1 (1A)	17	2.25MHz	–	✓	WSON (2x2mm)	100% duty cycle; 17 μ A typical quiescent current
TPS62170-Q1 (0.5A)	17	2.25MHz	–	✓	WSON (2x2mm)	100% duty cycle; 17 μ A typical quiescent current

Multi-Output PoL Buck Converter

Part number	V_{IN} -max (V)	F_{sw}	Voltage scaling	Low I_Q	Package (package size)	Special features
TPS65263-Q1 (3A/2A/2A)	17	200kHz to 2.3MHz	✓	–	QFN (5.0x5.0mm)	I ² C controlled light load mode and status reporting
TPS62400/10/20-Q1 (0.4A/0.6A/1.0A)	6	2.2MHz	✓	✓	QFN (3.0x3.0mm)	Fixed output voltage options available
TPS65400-Q1 (4A/4A/2A/2A)	18	275 kHz to 2.2MHz	✓	–	7x7 QFN	PMBUS lite; with current sharing capability

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