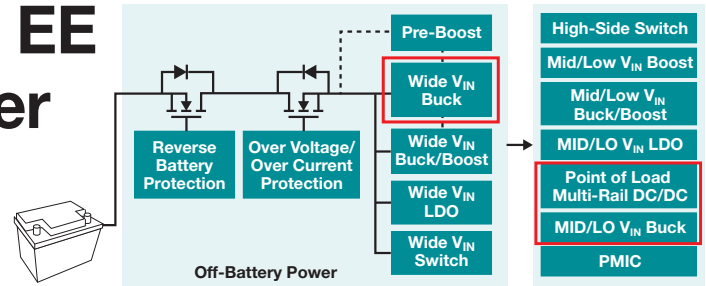


# Automotive Infotainment EE Buck Converter/Controller Quick Selection Guide



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

0.5A to 1.5A Buck Converters ★	Synchronous	Fixed $F_{sw}$ / Sync Input	Spread Spectrum	Low $I_q$	Package	Special
<a href="#">LM53600-Q1</a> (0.5A) <a href="#">LM53601-Q1</a> (1A)	✓	2.1MHz 1.9 to 2.3MHz	✓	✓	QFN / DAP Wettable Flanks	• Excellent EMI performance
<a href="#">LMR23610-Q1</a> (1A)	✓	400kHz 200kHz to 2.2MHz			SOIC WSO8	• Reduced BOM cost
<a href="#">TPS57140-Q1</a> (1.5A)	External diode	100kHz to 2.5MHz 300kHz to 2.2MHz			SOP8 PowerPAD™	

## 2.5A to 3.5A Wide $V_{IN}$ Buck Converter

2.5A to 3.5A Buck Converters ★	Synchronous	$F_{sw}$	Spread Spectrum	Low $I_q$	Package	Special
<a href="#">LM53635-Q1</a> (3.5A) <a href="#">LM53625-Q1</a> (2.5A)	✓	2.1MHz	✓	✓	HotRod™ QFN Wettable Flanks	• Excellent EMI performance • LMS3635-Q1 version for 3.5A@440kHz
<a href="#">LM53603-Q1</a> (3A) <a href="#">LM53602-Q1</a> (2A)	✓	2.1MHz		✓	TSSOP DAP	• Leaded package
<a href="#">LMR33620-Q1</a> (2A) <a href="#">LMR33630-Q1</a> (3A)	✓			✓	HotRod™ QFN (2 x 3mm)	• Excellent efficiency
<a href="#">LMR23625-Q1</a> (2.5A) <a href="#">LMR23630-Q1</a> (3A)	✓				SOIC/WSO8	• Reduced BOM cost
<a href="#">LMR14030-Q1</a>	External diode		✓		SOIC8	• Cost effective
<a href="#">TPS54340-Q1</a>	External diode				SOP8 PowerPAD™	

## >5A+ Wide $V_{IN}$ Buck Converter

>5A+ Buck Converters ★	Synchronous	$F_{sw}$	Low Dropout	Package	Special
<a href="#">LM73606-Q1</a> (6A) <a href="#">LM73605-Q1</a> (5A)	✓	✓	✓	QFN30 Wettable Flanks	• Excellent thermal performance
<a href="#">LMS3655-Q1</a> (5.5A)	✓	440kHz	✓	HotRod™ QFN Wettable Flanks	• Pin compatible with LM53635-Q1 2.1MHz
<a href="#">LMR14050-Q1</a> (5A)	External diode			SOIC8 DAP	• Reduced BOM cost
<a href="#">TPS54540-Q1</a> (5A)	External diode	✓		SOP8	

## >5A+ Wide V<sub>IN</sub> Buck Controller

Controllers ★	Dual Phase/ Dual Output	Control Mode	Input Voltage	Special
<a href="#">LM5143-Q1</a>	✓ / ✓	Current	3.8V to 65V	• 4-phase possible with two LM5143-Q1
<a href="#">LM5140-Q1</a>	✓ / ✓	Current	3.8V to 65V	• Dual version of LM5141-Q1
<a href="#">LM5141-Q1</a>		Current	3.8V to 65V	• 42V version also available: LM25141-Q1
<a href="#">LM5146-Q1</a>		Voltage	5.5V to 100V	
<a href="#">TPS40170-Q1</a>		Voltage	4.5V to 60V	• For new designs, LM5146-Q1 is recommended alternate device

## Single-Output PoL Buck Converter

Single PoL Buck Converters ★	F <sub>SW</sub>	Spread Spectrum	Low I <sub>Q</sub>	Package	Special
<a href="#">TPS62812-Q1</a> (2A) <a href="#">TPS62810-Q1</a> (4A) <a href="#">TPS62811-Q1</a> (1A) <a href="#">TPS62813-Q1</a> (3A)	1.8 to 4MHz (Fixed)	✓	✓	HotRod™ QFN (2 x 3mm) Wettable Flanks	• NEW Product Preview • Samples available now
<a href="#">TPS57112-Q1</a> (2A) <a href="#">TPS54388-Q1</a> (3A) <a href="#">TPS57114-Q1</a> (4A) <a href="#">TPS54618-Q1</a> (6A)	0.3 to 2MHz (Fixed)			QFN	• Highest output current scalable family • Lowest R <sub>DS(ON)</sub> FETs for best efficiency
<a href="#">TPS62065-Q1</a> (2A)	3MHz (Fixed)	✓	✓	QFN (2 x 2mm)	• Small solution size, low external component count • Clock dithering
<a href="#">TPS62260-Q1</a> (0.6A) <a href="#">TPS62290-Q1</a> (1A)	2.25MHz (Fixed)		✓	SON (2 x 2mm)	• Small solution size, low external component count

## Multi-Output PoL Buck Converter

Multi-rail PoL Buck Converters ★	Fixed F <sub>SW</sub>	Voltage Scaling	Package (Package Size)	Special
<a href="#">TPS65263-Q1</a> (3A/2A/2A)	200kHz to 2.3MHz	✓	QFN (5.0x5.0mm)	• I <sup>2</sup> C-controlled light-load mode and status reporting
<a href="#">LM26420-Q1</a> (2A/2A)	2.2MHz		QFN (4.0x4.0mm) HTSSOP (6.5x4.4mm)	• Internal compensation reduces solution size
<a href="#">TPS62400/10/20-Q1</a> (0.4A/0.6A)	2.25MHz	✓	QFN (3.0x3.0mm)	• Fixed output voltage options available

★ Within each table, devices are listed in order with the highest performance devices at the top.

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