

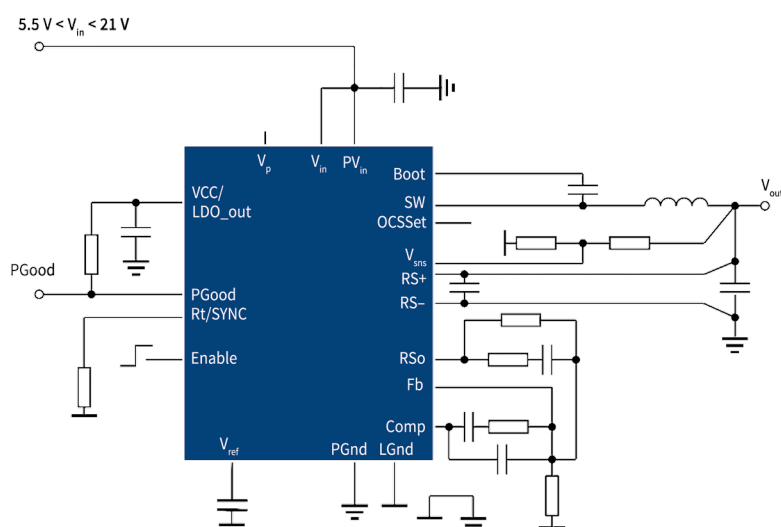
Product Brief

Analog SupIRBuck™ voltage regulators

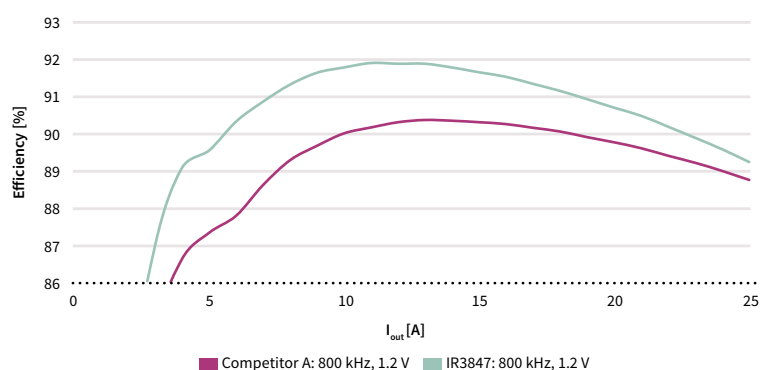
High efficiency and accuracy

Our point-of-load converters integrate a PWM controller, driver and MOSFETs into a small PQFN package for ease-of-use. The patented PWM modulation scheme allows greater than 1 MHz switching frequencies to deliver ultra compact layouts and smallest bill-of-materials.

Application diagram



High efficiency comparison graph



Key features

- › True differential remote sense to eliminate parasitic voltage drops
- › Industrial qualified, -40°C to +125°C
- › 0.5% accuracy at +25°C to +105°C
- › Up to 1.5 MHz switching
- › 1.5 V ~ 21 V input voltage
- › Feed-forward
- › Thermally compensated current limit
- › Internal current limit with 3 settings offers programmability without extra resistor and layout complication
- › Dead-time trimming to optimize efficiency and ringing
- › Pinout optimized for easy layout and perfect bypassing of input caps

Applications

- › Telecom
- › Datacom
- › Server
- › Storage
- › Embedded computing
- › ASIC/FPGA platforms

Analog SupIRBuck™ voltage regulator

High efficiency and accuracy

PoL portfolio for Gen 3 voltage mode PWM – SupIRBuck™

PQFN 5 x 7 mm

~20 A – 35 A

PQFN 5 x 6 mm

~6 A – 25 A

PQFN 4 x 5 mm

~2 A – 10 A

PQFN 3.5 x 3.5 mm

~1 A – 3 A

1 A

 I_{out}

35 A

Product portfolio

Part	Family	I_{out} [A]	$V_{in, max.}$ [V]	f_{sw} [MHz]	Package [mm]	Key features
IR3846	SupIRBuck™	35	21	0.2 – 1.5	5x7	Differential remote sense
IR3847		25	21	0.2 – 1.5	5x6	
IR3448		16	21	0.2 – 1.5	5x6	
IR3895		16	21	0.2 – 1.5	5x6	Tracking, sequencing, margin
IR3894		12	21	0.2 – 1.5	5x6	
IR3899		9	21	0.2 – 1.5	4x5	
IR3898		6	21	0.2 – 1.5	4x5	
IR3897		4	21	0.2 – 1.5	4x5	Dual output
IR3892		6+6	21	0.2 – 1.5	5x6	
IR3891		4+4	21	0.2 – 1.5	5x6	Programmable soft-start
IR3823	EaSy SupIRBuck™	3	21	0.2 – 1.5	3.5x3.5	
IR3883*		3	14	0.8	3x3	No compensation

*Coming soon

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