

## Product Overview

### NCP3030: Synchronous PWM Controller

For complete documentation, see the data sheet.

The NCP3030 is a PWM device designed to operate from a wide input range and is capable of producing an output voltage as low as 0.6 V. The NCP3030 provides integrated gate drivers and an internally set 1.2 MHz (NCP3030A) or 2.4 MHz (NCP3030B) oscillator. The NCP3030 also has an externally compensated transconductance error amplifier with an internally fixed soft-start. Protection features include lossless current limit and short circuit protection, output overvoltage protection, output undervoltage protection, and input undervoltage lockout. The NCP3030 is currently available in a SOIC-8 package.

#### Features

- Input voltage from 4.7 V to 28 V
  - 0.8 V +/-1.5% Reference Voltage
  - 1200 kHz Operation (NCP3020B - 2400 kHz)
  - >1A Drive Capability
  - Current Limit and Short Circuit Protection
  - Output Overvoltage and Undervoltage Detection
  - Transconductance Amplifier with External Compensation
  - Integrated boost diode
  - Regulated Soft-start
  - AEC-Q100 and PPAP compliant (NCP3030)
- For more features, see the data sheet

#### Benefits

- Ability to regulate from different input voltage sources
- Capable of low output voltage operation
- High frequency operation allows the use of small size inductor and capacitor
- Ability to drive low R<sub>dson</sub> high efficiency MOSFETs
- Advanced protection features
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- Ability to utilize all ceramic input and output capacitors
- Reduced number of support components and cost
- Closed loop regulation during soft-start prevents any spikes or droops
- Ideal for automotive applications

#### Applications

- DC/DC conversion

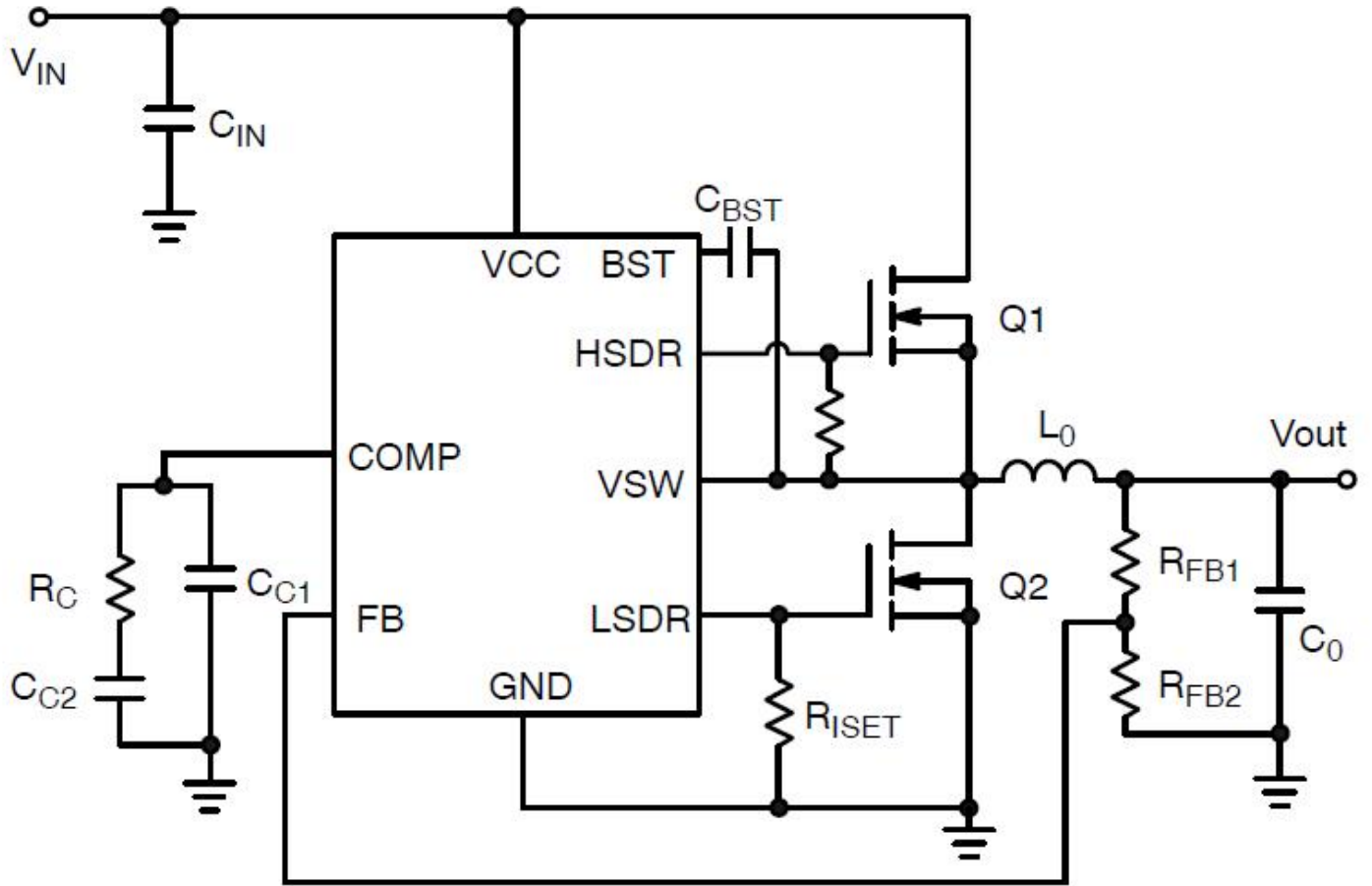
#### End Products

- LCD Module Power
- Datacom / Computing
- Networking equipment
- Entry level and mid range servers

### Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Phases	Control Mode	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	f <sub>sw</sub> Typ (kHz)	Package Type
NCP3030ADR2G	0.4	Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.7	20	1200	SOIC-8
								13.2		
								16		
								14.5		
NCP3030BDR2G	0.4	Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.7	13.2	2400	SOIC-8
								20		
								14.5		
								28		
NCV3030ADR2G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.7	28	1200	SOIC-8
								20		
								16		
								13.2		
NCV3030BDR2G	0.48	AEC Qualified PPAP Capable Pb-free Halide free	Active	Step-Down	1	Voltage Mode	4.7	13.2	2400	SOIC-8
								14.5		
								20		
								28		
								16		

# Application Diagram



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