

**Product
Summary
Sheet**

**Three Channel, Closed Loop,
Switch Mode LED Driver IC**

Applications:

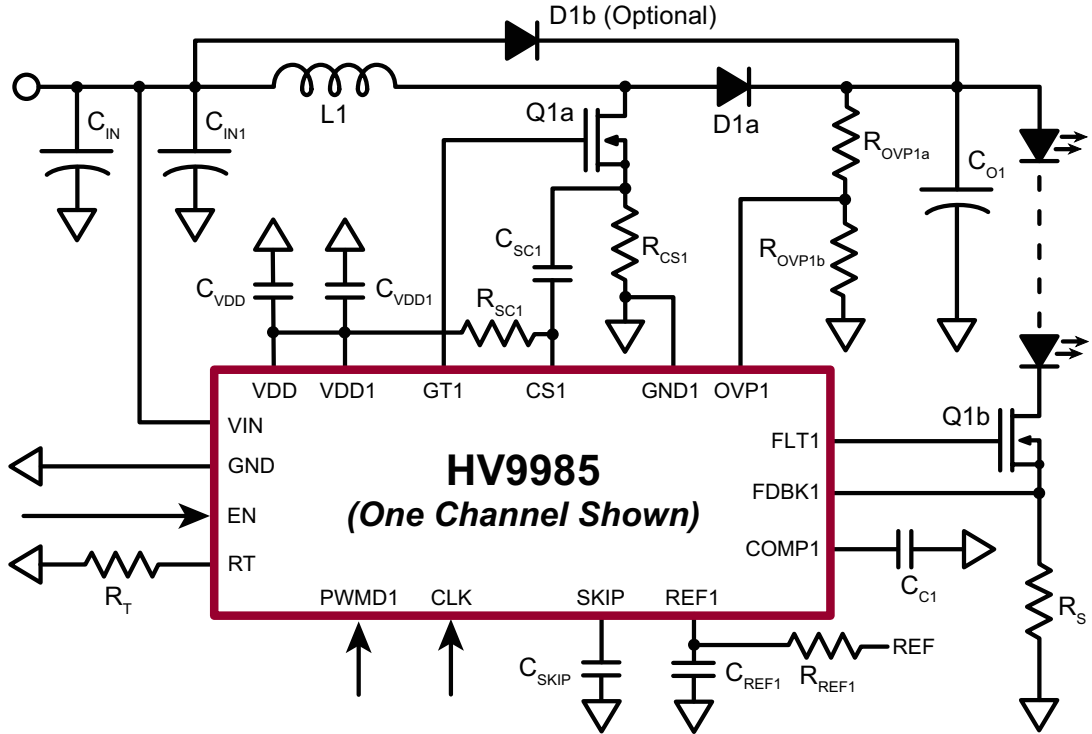
- ▶ RGB backlight applications
- ▶ Boost, buck & SEPIC topologies
- ▶ Multiple string white LED driver applications



40-Lead QFN (K6)



44-Lead QSOP (QP)



Typical Application Circuit

Product Overview:

The HV9985 is a three channel, peak current mode, PWM controllers for driving single switch converters in a constant output current mode. They can be used for driving either RGB LEDs or multiple channels of white LEDs. The IC is designed to operate with an input voltage in the range of 10 - 40V.

The IC features a 40V linear regulator, which provides a 5.0V supply to power the IC. The switching frequencies of the three converters in the IC are controlled either with an external clock signal (the channels operate at a switching frequency of 1/12th of the external clock frequency) or using the internal oscillator. The three channels are positioned 120° out-of-phase to reduce the input current ripple. Each converter is driven by a peak current mode controller with output current feedback.

Features:	Benefits:
Three converters with individual output current feedback	Closed loop system for tighter line and load regulation of the LED current with good transient response to PWM dimming
Constant frequency operation	Flexibility in use of various converter topologies: boost, fly-back, and buck
Programmable slope compensation	Wider operating range
Programmable internal OVP comparator and short circuit protection	Independent protection from over voltage and short circuit conditions



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Ordering Information / Availability

Part Number	Package Option	Samples	Lead Time
HV9985K6-G	40-Lead QFN (Green)	Now	6-8 Weeks ARO
HV9985QP-G	44-Lead QSOP (Green)	3 weeks	6-8 Weeks ARO

-G indicates the part is RoHS compliant (Green).



Product Contact

For any questions regarding the HV9985, please contact your local area Supertex sales office, or contact the main office in the US at:

Telephone: 800-222-8888
 Fax: 408-222-4895
 EMail: mktg@supertex.com
 Website: www.supertex.com

Supertex inc.
 1235 Bordeaux Drive, Sunnyvale, CA 94089