L6756

2/3/4 phase buck controller for VR10, VR11.1 and AM2 processor applications

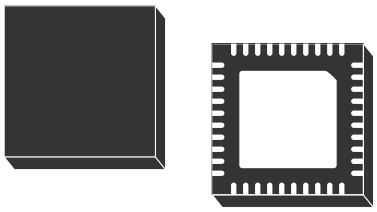
Data Brief

Features

- LTB technology® enhances load transient response
- 2 to 4 scalable phase operation
- Dual-edge asynchronous architecture
- PSI# input with programmable strategy
- IMON output
- Flexible driver support
- 7/8 bit programmable output - VR10/11.x DAC
- 6 bit programmable output - AMD AM2 DAC
- 0.5 % output voltage accuracy
- Full-differential current sense across DCR
- Integrated remote sense buffer
- Feedback disconnection protection
- Adjustable oscillator from 100 kHz to 1 MHz
- LSLess startup to manage pre-biased ouptut
- Programmable Soft-start
- Threshold sensitive enable Pin for VTT Sensing
- VFQFPN40 7x7 mm package

Applications

- High-current VRM / VRD for desktop / server / workstation CPUs
- Graphic cards
- Low-voltage, high-current power supplies
- High-density DC / DC converters



VFQFPN40

Description

L6756 is a two-to-four phase controller designed to power Intel's most demanding Processors and, most in general, low-voltage, high-current power supplies. The device features LTB technology® to provide the fastest response to load transients thus minimizing the output filter composition.

L6756 embeds selectable DAC: Output Voltage is programmable up to 1.6000 V (Intel VR10 and VR11.x DACs) or up to 1.550 V (AMD 6bit DAC) managing DVID transitions with ±0.5 % output voltage accuracy over line, load and temperature variations.

The device assures fast protection against load over current and under / over voltage. Feedback disconnection prevents from damaging the load in case of misconnections in the system board.

Low-Side-Less start-up allows soft-start over pre-biased output avoiding dangerous current return through the main inductors as well as negative spike at the load side.

L6756 is available in VFQFPN40 7x7 mm package.

Table 1. Device summary

Order code	Package	Packing
L6756	VFQFPN40	Tube
L6756TR	VFQFPN40	Tape & Reel

1 Revision history

Table 2. Document revision history

Date	Revision	Changes
15-Feb-2008	1	Initial release.

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