

## 2/3/4 phase controller with embedded drivers for Intel VR11.1

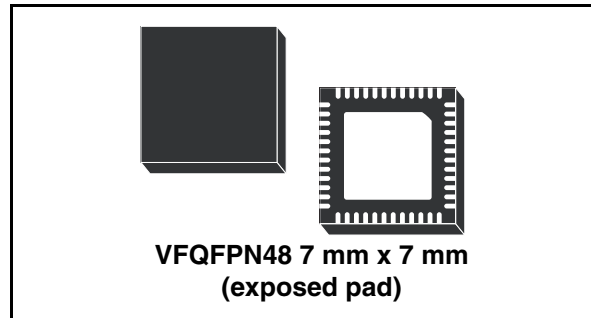
Data Brief

### Features

- Load transient boost LTB Technology™ to minimize the number of output capacitors
- 2 or 3-phase operation with internal driver
- 4-phase operation with external PWM driver signal
- PSI input with programmable strategy
- Imon output
- 0.5 % output voltage accuracy
- 8 bit programmable output up to 1.60000 V - Intel VR11.1 DAC - backward compatible with VR10/VR11
- Full differential current sense across inductor
- Differential remote voltage sensing
- Adjustable voltage offset
- LSLess startup to manage pre-biased output
- Feedback disconnection protection
- Preliminary over voltage protection
- Programmable over current protection
- Programmable over voltage protection
- Adjustable switching frequency
- SS\_END and OUTEN signal
- VFQFPN48 7 mm x 7 mm package with exposed pad

### Applications

- High current VRM/VRD for desktop / server / workstation CPUs
- High density DC-DC converters



### Description

The device implements a two-to-four phases step-down controller with three integrated high current drivers in a compact 7x7 mm body package with exposed pad.

Load transient boost LTB Technology™ reduces system cost by providing the fastest response to load transition therefore requiring less bulk and ceramic output capacitors to satisfy load transient requirements.

The device embeds VR11.x DACs: the output voltage ranges up to 1.60000 V managing D-VID with  $\pm 0.5$  % output voltage accuracy over line and temperature variations.

The controller assures fast protection against load over current and under / over voltage (in this last case also before UVLO). Feedback disconnection prevents from damaging the load in case of disconnections in the system board.

In case of over-current, the system works in constant current mode until UVP.

**Table 1. Device summary**

Order codes	Package	Packaging
L6716	VFQFPN48 7 mm x 7 mm	Tube
L6716TR		Tape and reel

# 1 Revision history

**Table 2. Document revision history**

Date	Revision	Changes
2-May-2008	1	Initial release

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