THE DATASHEET OF

PM6764TR

www.win-source.net 0086-755-83957316

PM6764, PM6766

VR12.5™ digital multiphase controller with PMBus™

Data brief

VFQFPN28 4 x 4 mm **VFQFPN40 5 x 5 mm**

Features

- PM6764: 4-phase compact digital controller
- PM6766: 6-phase compact digital controller
- VR12.5™ compliant with 25 MHz SVID bus rev. 1.2, serial-VID with programmable IMAX, TMAX, VBOOT, ADDRESS
- High-performance digital control loop (digital STVCOT™)
- Fully configurable through PMBus™
- Flexible driver/DrMOS support
- Single NTC design for TM, LL and IMON thermal compensation
- DPM - dynamic phase management
- Remote sense; 0.5% Vout accuracy with calibration
- Current sense across DCR with calibration
- Autocalibration capability for current and voltage sense
- Programmable voltage positioning
- OV, UV and FB disconnection protection
- Embedded non-volatile memory (NVM)
- Black box recorder
- PM6764: VFQFPN28 4 x 4 mm package
- PM6766: VFQFPN40 5 x 5 mm package

Applications

- High current power regulation for VR12.5 based Intel® based microprocessors
- DDR memory power regulation for VR12.5 based Intel based systems

Description

The PM6764/66 is a high performance digital controller designed to power Intel's VR12.5 processors (PM6766) and memories (PM6764): all required parameters are programmable through a PMBus™ interface.

The device utilizes digital technology to implement all control and power management functions to provide maximum flexibility and performance. The NVM is embedded to store custom configurations.

The PM6764/66 device features up to 4/6-phase programmable operation. The PM6764/66 supports power state transitions featuring VFDE, and programmable DPM maintaining the best efficiency over all loading conditions without compromising transient response. The device assures fast and independent protection against load overcurrent, under/overvoltage and feedback disconnections. The device is available in VFQFPN28 4 x 4 mm (PM6764) and VFQFPN40 5 x 5 mm (PM6766) packages.

Table 1. Device summary

Order code	Package	Packing
PM6764	VFQFPN28 4 x 4 mm	Tray
PM6764TR		Tape and reel
PM6766	VFQFPN40 5 x 5 mm	Tray
PM6766TR		Tape and reel

For further information contact your local STMicroelectronics sales office. www.st.com

Revision history

Table 2. Document revision history

Date	Revision	Changes
11-Mar-2014	1	Initial release.

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