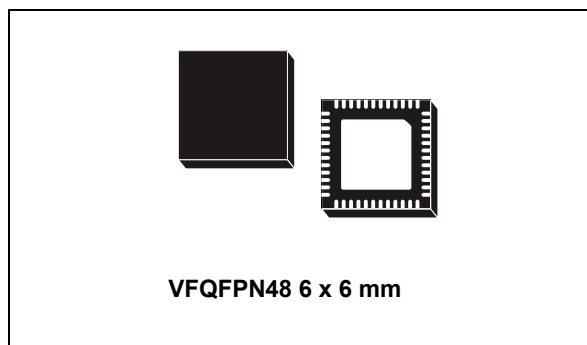


6+1 dual channel VR13 digital multiphase controller with PMBus™

Data brief



Features

- Intel® VR13 6 + 1 phases compact digital controller
- VR13 compliant with 25 MHz SVID bus rev.1.7
- High performance digital control loop (digital STVCOT™)
- Proprietary auto tuning technique
- Fully configurable through PMBus™
- AutoDPM - automatic dynamic phase management
- Remote sense; 0.5% Vout accuracy with calibration
- Current monitor signal 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
- VFQFPN48 6 x 6 mm package
- Universal footprint and pinout for multi-sourcing

Applications

- High current power regulation for VR13 Intel based microprocessors
- DDR memory power regulation for VR13 Intel based systems

Description

The PM6776 is a high performance digital dual controller designed to power Intel VR13 processors: 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 PM6776 device features up to 6 + 1 phase programmable operation. The PM6776 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 a VFQFPN48 6 x 6 mm package.

Table 1. Device summary

Order code	Package	Packing
PM6776	VFQFPN48 6 x 6 mm	Tray
PM6776TR		Tape and reel

Revision history

Table 2. Document revision history

Date	Revision	Changes
04-Mar-2014	1	Initial release.
19-Dec-2016	2	Updated main title <i>on page 1</i> , <i>Features on page 1</i> , <i>Applications on page 1</i> , and <i>Description on page 1</i> (added Universal footprint and pinout for multi-sourcing, removed Next generation server CPU, Flexible driver/DrMOS support, Single NTC design for TM, LL and IMON thermal compensation, Current sense across DCR, added Proprietary auto tuning technique).
08-Feb-2017	3	Updated main title <i>on page 1</i> . Updated "VR13 compliant w/ 25 MHz SVID bus rev1.7" in <i>Section : Features on page 1</i> .

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