MPS' MP2888A Receives 2018 World Electronics Achievement Award "Power Management/Voltage Converter of the Year"

Last week, the list of the 2018 World Electronics Achievement Awards was unveiled at the Global Double Summit hosted by ASPENCORE, the world's largest media group in the field of electronic technology. The MP2888A from MPS won the title of "Power Management/ Voltage Converter of the Year" as the industry's first 10-phase digital controller. MPS becomes one of only three companies that have won this world award.

Figure 1: Mr. Lu Ping, Deputy General Manager of MPS North China, Receives Award on Behalf of MPS

As the first 10-phase digital controller in the industry, the MP2888A is a high-power, high frequency, power IC for GPU designs of GV100, the strongest processor from NVIDIA. The MP2888A supports the OpenVReg protocol and is compatible with mid- to low-end GPU from NVIDIA. Using digital control, its different configurations can be obtained easily by storing and rewriting registers, and the status of the power supply can be debugged with real-time feedback through the PMBus/I^{2}C interface. MPS' proprietary digital control method enables the MP2888A to achieve superior steady-state and dynamic features at the same time.

The MP2888A implements a digitalized way to achieve both PWM-VID and PSI control modes (see Figure 2 and Figure 5).

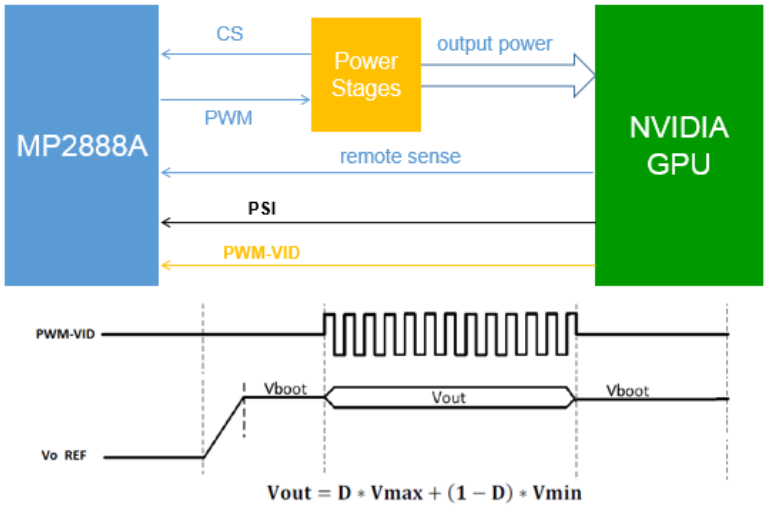


Figure 2: PWM-VID Interface

Adopting with innovative PWM-VID digital solution, instead of traditional complex analog control (see Figure 3 and Figure 4).

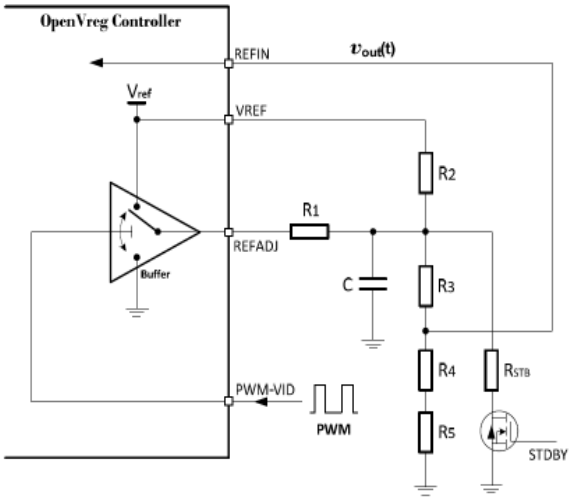


Figure 3: Traditional Analog Control

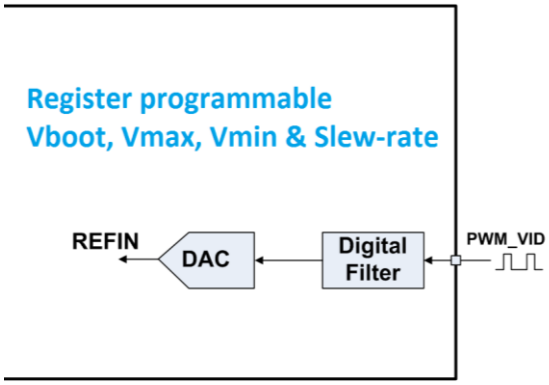
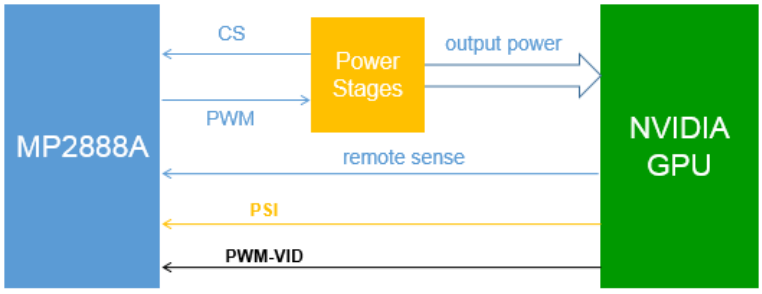


Figure 4: PWM-VID Digital Solution

The MP2888A can achieve output voltage regulation online with only one pin. This simplifies and shrinks the board design greatly compared to the traditional method requiring four pins and more peripheral R/C devices.



PSI pin	PS Mode	
	disable APS	enable APS
High	Full phases	Full phases
Hi-Z	Full phases	APS
Low	Low phases	Low phases

Figure 5: PSI Interface

With PSI mode, the MP2888A can flexibly switch from high to low power operation while optimizing the efficiency of the system in a wide power range.

Summary

The MP2888A is a digital, COT control mode, multi-phase, digital power controller supporting PWM-VID protocol. Digital, intelligent control enables the MP2888A not only to support 10-phase operation, but to also cover a wide range of frequency switch applications from 200kHz to 3MHz, providing users with more flexible, convenient and efficient power solutions.

To learn more about the MP2888A, click here.