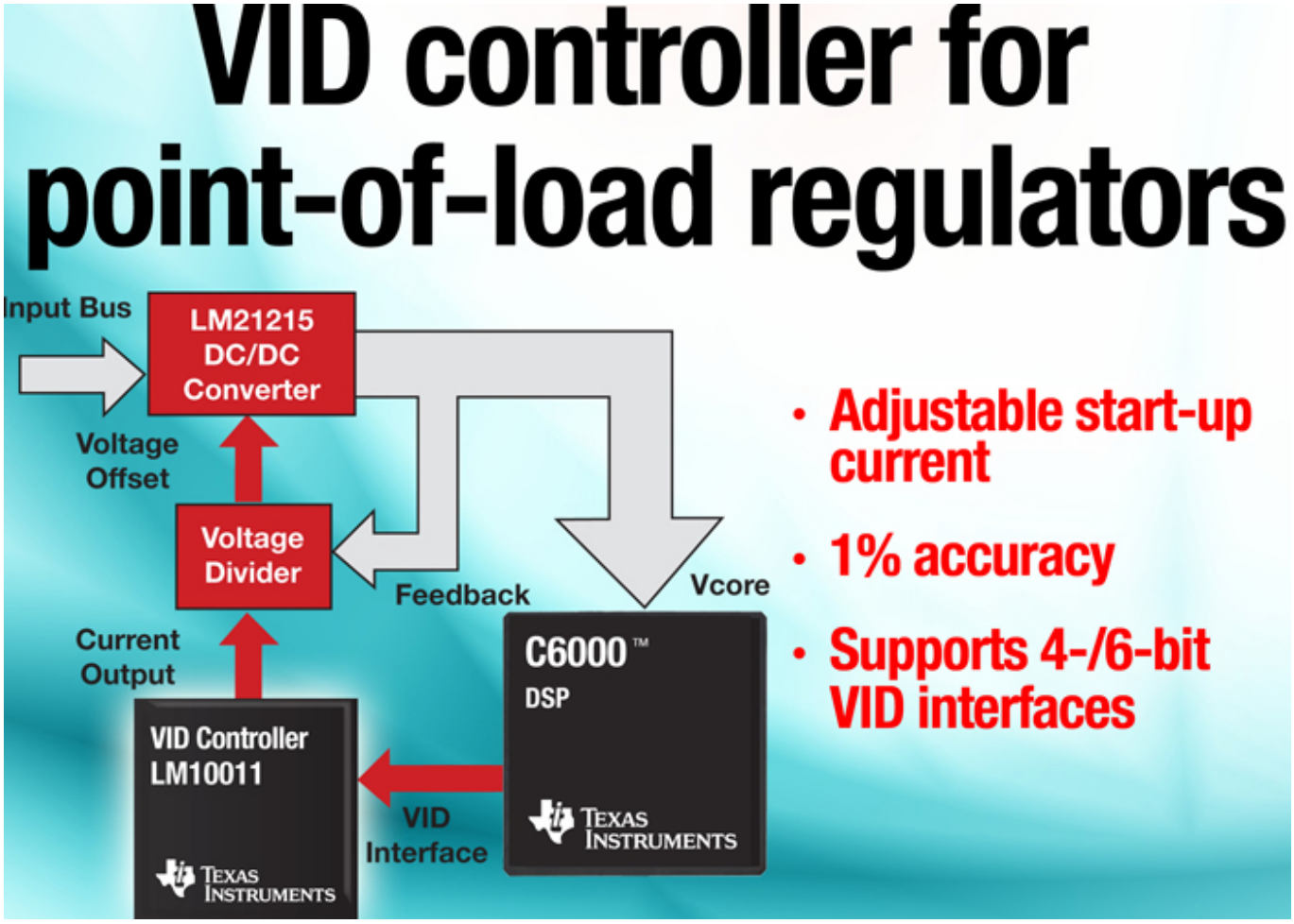
Voltage identification IC features one-percent output accuracy

Texas Instruments Incorporated (TI) introduced a power management controller with 4- and 6-bit voltage identification (VID) interfaces. The LM10011 is the first VID controller designed to operate along with a point-of-load regulator to adjust the core voltage (VCORE) of a VID-enabled processor, such as TI's C6000 power-optimized DSPs [1] and KeyStone multicore DSPs [2]. The LM10011 enables TI's DSPs to realize their full power savings capability to reduce power consumption in wireless infrastructure applications. The controller features industry-leading one-percent output accuracy and adjustable output current during start-up. For more information and samples, visit www.ti.com/lm10011-pr [3].



The LM10011 VID controller operates over a 2.97-V to 5.5-V input voltage range and is a cost-effective, easy-to-use solution. It can be used with any point-of-load regulator that has a feedback node, such as TI's high-performance 15-A LM21215 [4] and 25-A TPS56221 [5] synchronous buck regulators. The LM10011 offers 16 pin-programmable current output options during start-up, allowing the DSP VCORE to power up various voltages to enable greater system flexibility and reliability. Watch a video demonstration at www.ti.com/lm10011-prv [6].

The LM10011 controller joins TI's family of high-accuracy VID products that include the LM10010 [7], UCD9244 [8], UCD9224 [9], UCD9248 [10] and UCD9222 [11].

Key features and benefits of the LM10011 VID controller

- 16 selectable start-up current options offer flexibility for system operation and higher system reliability.
- One-percent output voltage accuracy is fully compliant with C6000 VID table.
- 2.97-V to 5.5-V input voltage range supports both 5-V and 3.3-V bus voltages.
- Pin-selectable VID format allows 4-bit and 6-bit VID patterns.
- Precision enable supports custom under-voltage lockout (UVLO).

Availability, packaging and pricing

The LM10011 VID controller is available in volume now from TI and its authorized distributors. Offered in a 10-pin QFN package that measures 3-mm by 3-mm by 0.5-mm, the LM10011 is priced at US$0.60 in 1,000-unit quantities.

Find out more about TI's VID controllers:

- Order samples and an evaluation module of the VID controller: www.ti.com/lm10011-pr [3].
- Design a complete power management system online with TI's WEBENCH Power Designer: www.ti.com/webenchpwr-pr [12].
- Ask questions and share knowledge in the power forum in the TI E2E Community: www.ti.com/powerforum-pr [13].
- Download power reference designs from TI's PowerLab Reference Design Library: www.ti.com/powerlab-pr [14].

Source URL (retrieved on *06/18/2013 - 7:00pm*):
http://www.ecnmag.com/product-releases/2013/02/voltage-identification-ic-features-one-percent-output-accuracy

Links:
[1] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14790&Action=Follow+Link
[2] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14789&Action=Follow+Link
[3] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=F

alse&DistributionActionID=14780&Action=Follow+Link
[4] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14788&Action=Follow+Link
[5] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14787&Action=Follow+Link
[6] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14786&Action=Follow+Link
[7] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14785&Action=Follow+Link
[8] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14784&Action=Follow+Link
[9] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14783&Action=Follow+Link
[10] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14782&Action=Follow+Link
[11] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14781&Action=Follow+Link
[12] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14779&Action=Follow+Link
[13] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14778&Action=Follow+Link
[14] http://TI.pr-optout.com/Tracking.aspx?Data=HHL%3d%40%2f63%3e%26JDG%3c%3d1%3e152.LP%3f%40083%3a&RE=MC&RI=3886530&Preview=False&DistributionActionID=14777&Action=Follow+Link