**\*\*\*DENOTES: POR posted online**

**600-V gate driver from TI enables higher power density in server and industrial power**

40 percent faster high-voltage, half-bridge driver reduces system-solution size for MOSFETs and IGBTs

DALLAS (Sept. 28, 2015) – Texas Instruments (TI) (NASDAQ: TXN) today introduced the industry’s fastest half-bridge gate driver for discrete power MOSFETs and IGBTs that operate up to 600 V. The UCC27714 high-side, low-side driver with 4-A source and 4-A sink current capability reduces component footprint by 50 percent, enabling higher power density in high-frequency, offline AC/DC power supplies used in server, telecom and industrial designs including uninterruptible power supplies. For more details, see [www.ti.com/UCC27714-pr](http://www.ti.com/UCC27714-pr).

The UCC27714 delivers 90 nanosecond (ns) propagation delay, 40 percent lower than existing silicon solutions, tight control of the propagation delay with a maximum of 125 ns across -40 C to 125 C and tight channel-to-channel delay matching of 20 ns across -40 C to 125 C.  The device eliminates the need for bulky gate drive transformers, saving significant board space in high-frequency switch-mode power electronics.

**Key features and benefits of the UCC27714:**

* **Smaller footprint creates highest power-density solutions:** The UCC27714 reduces gate driver component footprint by 50 percent in secondary-side controlled power supplies.
* **Advanced noise toleration:** Negative voltage handling of -6 V at the switched-node pin creates the ability to tolerate noise, causing virtually no malfunctions in the electronic system.
* **MOSFETs have the ability to drive over a wide power range:** The device’s high-current capability of 4 A enables MOSFETs to drive over a wide power range, from a few watts to a kilowatt.
* **Operates across wide temperatures:** All electrical characterizations have little variations across operating temperatures, creating a simplified design and speeding time to market.

**Complementary devices to maximize system performance**

Every gate driver in a system requires the appropriate controller for the end application. TI offers several [pulse-width modulation (PWM), resonant](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-lp-pwmcontrollers-wwe), [power factor correction (PFC)](http://www.ti.com/lsds/ti/power-management/power-factor-correction-products.page?DCMP=ucc27714&HQS=sva-hpvs-hpds-ucc27714-pr-lp-pfc-wwe) and [digital power controllers](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-lp-dpcontrollers-wwe). With the UCC27714 and TI’s recently released [UCC29950](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-pf-ucc29950-wwe) combination PFC (power factor correction) + LLC controller, designers can develop a complete, offline [AC/DC power supply](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-rd-tida00520-wwe) rated up to a few hundred watts. The fully internalized PFC compensation of UCC29950 reduces design steps enabling fast time-to-market while the three-level over current protection and hiccup mode operation ensures a robust operation under short circuits and overload conditions.

**Tools and support to speed design**

TI offers a broad range of support tools for the UCC27714 to speed time to market. Get started now using [PSpice transient model](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-sw-ucc27714-wwe) simulation software or one of the following fully tested reference designs from the TI Designs reference design library:

* UCC27714 600W Phase Shifted Full Bridge Converter Evaluation Module ([UCC27714EVM-551)](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-evm-ucc27714-wwe)
* 230-V, 400-W High-Efficiency Battery Charger Power Supply with PFC and LLC for 36-V Power Tools ([TIDA-00355](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-rd-tida00355-wwe))
* 360W Phase Shift, Full Bridge Resonant LLC with High Side Low Side Driver ([TIDA-00381](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-rd-tida00381-wwe))
* 340W Digital Controlled LLC Resonant Half-Bridge DC-to-DC Power Conversion ([TIDA-00512](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-rd-tida00512-wwe))
* 300W PFC Plus Resonant LLC Half-Bridge Controller Offline AC/DC PSU Module ([TIDA-00520](http://www.ti.com/sva-hpvs-hpds-ucc27714-pr-rd-tida00520-wwe))

**TEXAS INSTRUMENTS**

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