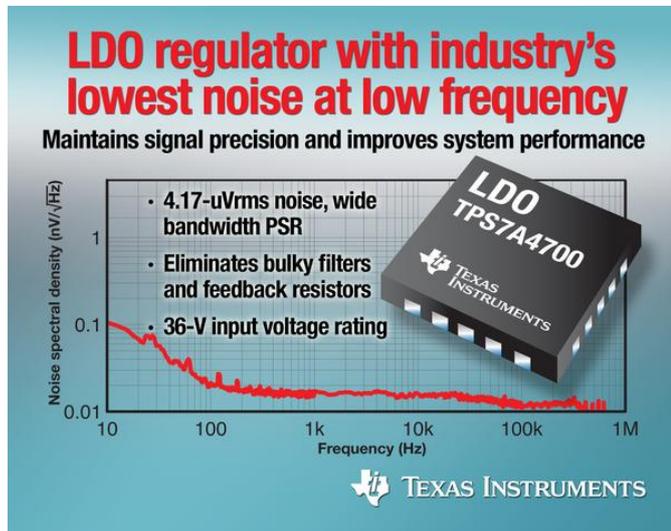


LDO Linear Voltage Regulator with Lowest Noise at Low Frequency



Texas Instruments Incorporated introduced a high current, ultra-low noise, low dropout (LDO) voltage regulator that achieves the industry's lowest noise at low frequency. The 1-A TPS7A4700 LDO linear regulator features less than 4.17-uVrms output noise over the 10-Hz to 100-kHz bandwidth, eliminating the need for expensive and bulky filtering in a wide range of high-performance applications, including telecom, industrial, RF, medical, avionics and military. For more information, samples and an evaluation board, visit www.ti.com/tps7a4700-pr [1].

TI's new TPS7A4700 LDO uses a unique feature that enables the setting of any output voltage rail in 100-mV increments with simple printed circuit board (PCB) layout changes. This eliminates the need for expensive, high accuracy, external feedback resistors, which saves board area and reduces component count when compared to existing solutions.

With digital control methods such as I²C or PMBus, the user can program the output voltage by selecting to either ground or open the binary-weighted device pins. See the application note for more information: www.ti.com/tps7a7200-pran [2].

For systems where both positive and negative voltage rails are required, the TPS7A4700 can be used together with TI's -36V/-1A [TPS7A3301](http://www.ti.com/tps7a3301) [3] LDO linear regulator. Watch a video on how to pick an LDO for noise-sensitive applications: www.ti.com/lido-prv [4].

For more information on all of TI's LDO regulators, visit www.ti.com/lido-pr [5].

Key features and benefits of the TPS7A4700 LDO regulator

- Industry's lowest noise at low frequency eliminates the need for expensive and bulky filtering in high-performance applications.
- Wide bandwidth and high power supply rejection (PSR) allow effective filtering of DC/DC switching supplies running at higher frequencies.
- 36-V input voltage rating allows use in systems running 12-V and 24-V buses with enough headroom to withstand high-voltage transients, eliminating the need for additional suppression circuitry.

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Published on Wireless Design & Development (<http://www.wirelessdesignmag.com>)

- Unique feature provides any output voltage rail in 100-mV increments, eliminating the need for expensive external feedback resistors.

Availability, packaging and pricing

The TPS7A4700 is available in volume now from TI and its authorized distributors. Offered in a 20-pin, 5-mm by 5-mm [QFN](#) [6] package, the suggested retail price is \$2.10 in 1,000-unit quantities.

Find out more about TI's LDO portfolio:

Learn more at www.ti.com [7].

August 29, 2012

Source URL (retrieved on 12/27/2014 - 2:14pm):

http://www.wirelessdesignmag.com/product-releases/2012/08/lDO-linear-voltage-regulator-lowest-noise-low-frequency?qt-most_popular=0

Links:

- [1] <http://nsc.pr-optout.com/Url.aspx?517623x70358x71204>
- [2] <http://nsc.pr-optout.com/Url.aspx?517623x70362x363733>
- [3] <http://nsc.pr-optout.com/Url.aspx?517623x70361x437599>
- [4] <http://nsc.pr-optout.com/Url.aspx?517623x70360x511463>
- [5] <http://nsc.pr-optout.com/Url.aspx?517623x70357x145063>
- [6] <http://nsc.pr-optout.com/Url.aspx?517623x70359x585325>
- [7] <http://nsc.pr-optout.com/Url.aspx?517623x70354x366628>