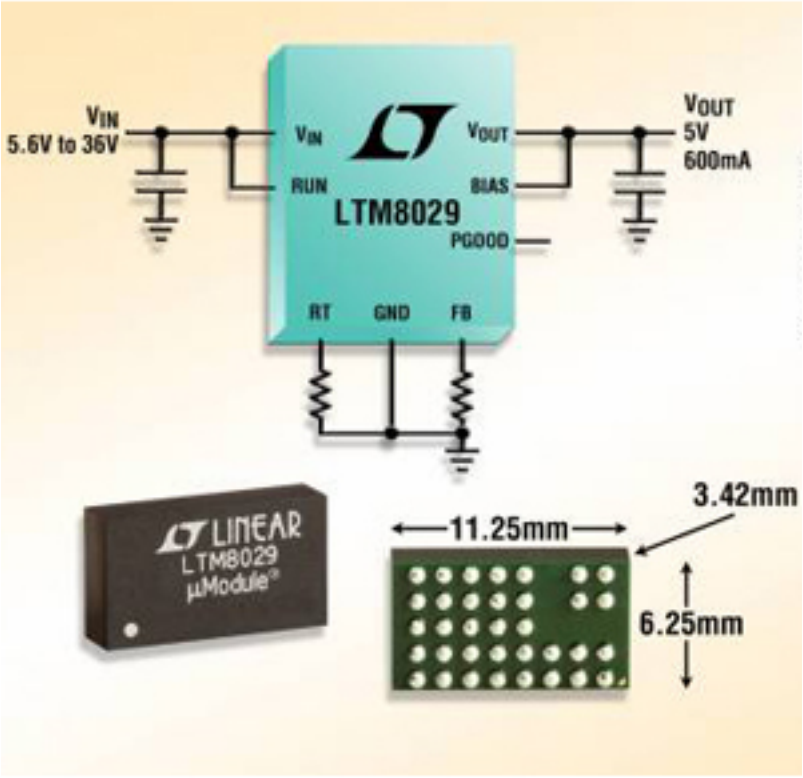
Step-down regulator consumes only 5µA quiescent current



Linear Technology Corporation introduces the LTM8029 [1], a 5µA quiescent current DC/DC step-down µModule regulator with very low dropout voltage and a wide input and output voltage range of operation. Capable of delivering up to 600mA, the LTM8029 prolongs battery run time one to two key features:

(1) 5µA quiescent current consumption during standby mode and only 0.9µA in shutdown discharges very little current from the battery, (2) very low 0.6V dropout (at 600mA) conversion permits longer operating time as the battery's operating voltage drops to a value close to the output voltage. Moreover, wide range of operating voltage of 4.5V to 36V (40Vmax) input and 1.2V to 18V output, enable the LTM8029's use in such applications as avionics, heavy industrial equipment, battery stack energy storage and factory automation and robotics.

The LTM8029 includes the inductor, power switches, DC/DC controller and additional circuitry in a small 6.25mm x 11.25mm x 3.42mm BGA package. Efficiency of operation for 3.3VOUT, at 600mA from 5VIN, 12VIN, and 24VIN is 84%, 79% and 75%, respectively. Rise in junction temperature is minimal at only 17°C, when converting from 36VIN to 3.3VOUT at full current of 600mA. The LTM8029 has adjustable switching frequency from 200kHz to 2.2MHz, useful for applications that must maintain switching noise within a certain range. In addition to positive-to-positive, the LTM8029 can be used to regulate a negative output voltage. Pricing starts at $6.60 each for 1,000-piece quantities. For more information, visit

www.linear.com/product/LTM8029 [1].

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[1] http://r20.rs6.net/tn.jsp?e=001J-1CerSGgCHfHhFZooyF7hubrvi49cEyGWvciSIJOwUmTEfJUNQyrrU3JhDtIIcl20SAt2Ucu0fn4lOUl4YHPuNr3YgflYrlSQz8KHv3jaw4M1YdW_8Lr87t61wnlo1uwsSz6ActcRg=