Synchronous Regulators Handle Consumer Applications

ON Semiconductor introduced a new family of high efficiency 2A to 4A integrated synchronous regulators for consumer electronics applications such as set top boxes, DVD/hard disk drives, LCD monitors/TVs, speakerphones, cable modems, and telecom/datacom equipment.

The NCP3125, NCP3126 and NCP3127 are synchronous pulse width modulation (PWM) switching buck regulators with integrated high side and low side MOSFETs capable of delivering continuous output currents of 2A, 3A and 4A respectively. The new devices offer extremely low on-state resistance values [RDS(on)] for integrated switchers resulting in high efficiency system solutions. The NCP3125 has a 60m? high-side MOSFET and 36m? low-side MOSFET and provides system level efficiencies greater than 90 percent. All three new devices can produce output voltages as low as 0.8V from an input supply of +5V to +12V. All three devices are pin-to-pin compatible, allowing the flexibility to scale the output current up or down during the product development process or speed up the product development process by allowing quick re-use on new designs. The devices feature an operating junction temperature range of ?40 °C to +125 °C.

“These new devices allow the implementation of higher density power designs than could be achieved by using a discrete component solution consisting of a controller IC and separate MOSFETs,” said John Blake, director of the Power Switching products at ON Semiconductor. “They offer greater levels of efficiency than competing integrated regulator alternatives already on the market. As a result, engineering teams will be able to create power designs that attain higher performance benchmarks in a smaller more compact integrated solution. We see this as a key capability as customers improve their designs to meet new energy efficiency standards in various consumer electronic products.”

The NCP3125, NCP3126, NCP3127 devices are offered in SOIC-8 packages and priced at $0.40, $0.35 and $0.30 per unit in 10,000 unit quantities. For more information, please visit http://www.onsemi.com [1].

Source URL (retrieved on *05/25/2013 - 8:30pm*):
http://www.ecnmag.com/product-releases/2010/06/synchronous-regulators-handle-consumer-applications?qt-most_popular=0

Links:
[1] http://www.onsemi.com