

6MHz buck-boost DCDC convertor IC allows for smaller external components, wider battery voltage range

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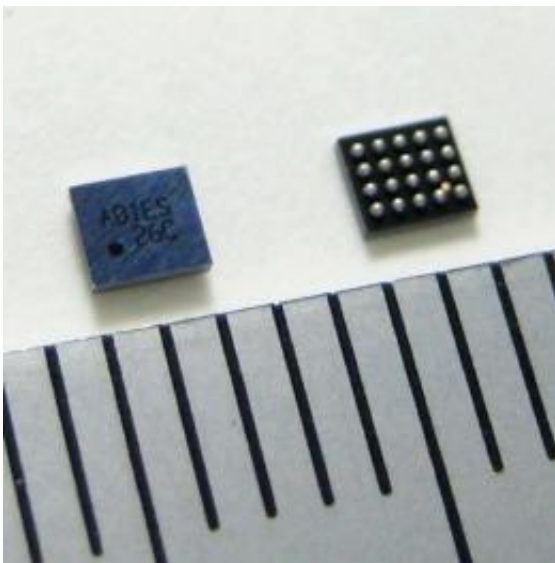


Figure 1. MB39C326 (2.15 × 1.94 mm)

Fujitsu Semiconductor Limited today announced the development of 6MHz buck-boost DCDC convertor IC "MB39C326" for radio frequency power amplifiers in mobile phones, smart phones, e-books and other handheld mobile devices. Sample shipments for the new IC product, MB39C306, will start from June 2011.

“MB39C326” operates at an industry-leading 6MHz as the buck-boost DCDC converter IC for radio frequency power amplifiers. The higher

frequency operation of 6MHz can largely reduce the mounting area of the power supply part (half the ratio of existing products.)

Buck-boost operation makes it possible for Li-ion [battery](#) to operate at wider battery voltage range. “MB39C326” makes it possible to deliver stable voltages for the equipment and extend the life of Li-ion batteries, when the voltage of Li-ion batteries drops.

Mobile phones, [smart phones](#), e-book and other handheld mobile devices are demanding higher performance with larger data transfer capacity, while aggressively miniaturizing components and board space. There is a strong push to reduce the overall size of RF amplifier without sacrificing stability and efficiency of its power supply. The passive inductor is one of the larger components requiring large space. With DCDC convertors switching at higher frequencies, inductor size can be reduced. Fujitsu Semiconductor’s DCDC convertor switches at 6MHz compared to conventional 2 to 3MHz, allowing a smaller inductor to be used and can be expected to reduce the overall board space of the power management circuits by half. Its buck boost operation switches automatically to extend the operating voltage of the lithium battery, while providing stable [power supply](#) to the power amplifier.

[Fujitsu](#) Semiconductor will introduce the new buck-boost DCDC convertor, MB39C326, at the Mobile World Congress in Barcelona from 14th to 17th February 2011. Samples will be available in June 2011.

Provided by Fujitsu Corporation

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