

6MHz Synchronous Rectification Buck-Boost DC/DC Converter IC Fact Sheet

MB39C326 was designed for the RF power amplifier of the mobile device that used 1-cell Li-ion battery. It is high-efficiency and low noise 6 MHz buck-boost DC/DC converter IC. The size of the inductor can be greatly reduced to 2-3MHz existing product by operating by the high frequency of 6MHz. Therefore, it becomes possible to reduce the substrate area of the power supply part by half. The range of the voltage that can be used can be expanded by automatic switching operation of the buck-boost circuit, and a steady power supply to the power amplifier can be supplied.

Features

- High efficiency: Up to 93%
- Input voltage range: 2.5 V to 5.5 V
- Adjustable output voltage range: 0.8 V to 5.0 V
- Over current limit value (Peak): 3.1A/1.3A/0.49A
- Output current:
 - 1200mA (Buck, output at 3.3V)
 - 800mA (Boost, output at 3.3V)
- 6MHz PWM operation allows 0.5 μ H small form inductor
- Less than 20 μ s step response for 3G
- Automatic Transition between buck mode and boost mode
- Selectable output voltage with external resistor
- Built-in Over temperature protection circuit
- Built-in Under voltage lockout protection circuit
- Package: 20-pin, WL-CSP(2.15mm x1.94 mmx 0.625 mm)

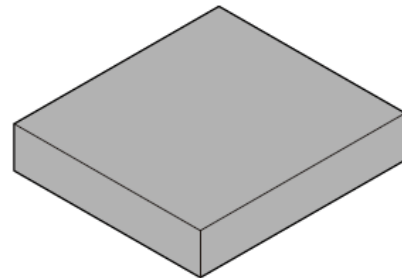
Applications

- Products that use 1-cell lithium batteries for the power supply
- RF power amplifier
- Cell-phone
- RF-PC card, PDA

Ordering Information

Part number	Package
MB39C326PW	20-pin plastic WL-CSP (WLP-20P-M01) 0.4 mm-ball-pitch 2.15 mm x1.94 mm

Package Example of Reference



20-pin plastic WL-CSP

Document History

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Revision	ECN	Orig. of Change	Submission Date	Description of Change
**	—	TAOA	04/17//2012	Migrated to Cypress and assigned document number 002-08963. No change to document contents or format.
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