

DESCRIPTION

The JW[®]3651 is a high performance buck boost converter that the output voltage can be programmable from 0.9V up to 20V through external resistor.

The JW3651 implements the Buck Boost converter with a single inductor architecture that operates with input voltages above, below or equal to the output voltage. And support 2-switch boost mode for higher efficiency.

The integrated low R_{ds(on)} MOSFET minimizes physical footprint, maximizes efficiency, which reduces the power dissipation. Constant current control is utilized to protect the device from overshooting at fault conditions. Built-in loop compensation simplifies the circuit and design.

JW3651 guarantees robustness with under voltage lockout, short circuit protection and thermal protection.

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FEATURES

- Integrate low R_{DS} (on) power MOSFET
- Wide V_{IN} range:3.0V-21V
- Wide V_O range:0.9V-20V
- Compatible with 4-switch buck-boost mode and 2-switch boost mode.
- Fixed frequency 450kHz
- Programmable input and output current limit
- Output constant current control.
- Quiescent current: <60μA
- Integrate output short protection (4-switch buck-boost mode)
- Integrate thermal protection
- QFN3X4-15 package

APPLICATIONS

- Power bank systems
- USB power delivery
- Industrial applications
- Automotive systems

TYPICAL APPLICATION

