

## Features

- Wide Input Voltage Range: 3V~36V
- Adjustable 0.8V~20V Output Range
- $\pm 1\%$  Output Voltage Accuracy over Line and Load
- Constant-on-time control scheme for fast transient and high Efficiency
- Programmable Operation Frequency from 100kHz to 600kHz
- Selectable Forced PWM or automatic PFM/PWM mode
- Power Good Indicator
- 50% Under-Voltage Protection
- 125% Over-Voltage Protection
- FB Short Protection
- Internal 5V Pre-regulator
- External Adjustable Soft-Start and Soft-Stop
- Internal Over Temperature Protection
- Programmable Over Current Protection
- TQFN16-3x3 package
- Green Product (RoHS, Lead-Free, Halogen-Free Compliant)

## Applications

- Notebook computers
- CPU core/IO Supplies
- Chip/RAM Supplies

## General Description

The GS7261C is small size chip with a relative constant on-time synchronous buck switching controller suitable for applications in notebook computers and other battery operated portable devices. Features include very wide input voltage range, high efficiency and a fast dynamic response with internal fast response.

The GS7261C have a unique power save mode, which can save battery power supply by decreasing frequency when load current falls down below preset critical current point.

The fast dynamic transient response means that buck converter applications based on GS7261C will provide about 100ns-order response to load when output voltage falls down or rises up. The frequency will increase or decrease to meet the change in output load. Moreover, the GS7261C will take the same method to regulate the output voltage when input voltage changes. When transient response regulated, the controller will maintain a new steady-state operation. Both the transient response state and the new state, the GS7261C always has the same on-time width.

The GS7261C is suitable for the solutions which have the output voltage between 0.8V and 20V. An external setting resistor and output voltage can set the on-time, duty-cycle and frequency for the controller. The integrated gate drivers feature adaptive shoot-through protection, fast signal transmission. Additional features include current limit, soft-start, over-voltage and under-voltage protection, a Power Good flag and soft discharge upon shutdown. The GS7261C is available in package TQFN16-3x3.