

Synchronous Buck Converter with Low-Noise LDO Regulator

Features

Buck Converter

- High Efficiency: Up to 95%
- Low Quiescent Current: Only 50µA During Operation
- Internal Soft Start Function
- 600mA Output Current
- 2.5V to 6V Input Voltage Range
- 1.2MHz Switching Frequency
- No Schottky Diode Required
- 100% Duty Cycle in Dropout Operation
- 0.6V Reference Allows Low Output Voltages
- <1µA Shutdown Current
- Current Mode Operation for Excellent Line and Load Transient Response

LDO Regulator

- Ultra Low Output Noise 30µV (rms)
- Ultra Low 55µA No-Load Supply Current
- Ultra Low Dropout 70mV @ 50mA Load
- Guarantee 300mA Output Current
- Fixed Mode: No External Resistor Network Needed
- Max. Supply Current in Shutdown Mode < 1µA
- Stable with Low Cost Ceramic Capacitors
- Over Temperature Protected
- RoHS Compliant

Applications

- Digital Still and Video Cameras
- MP3 Players
- Portable Instruments

General Description

The G5723 consists of a synchronous step-down DC/DC converter and a low-noise LDO regulator. The DC/DC converter is operated on current mode architecture. Switching frequency is set at 1.2MHz allowing the use of small surface mount inductor and capacitor. The internal synchronous switches increase efficiency and eliminate the need for external Schottky diode. It is ideal for system powered by a 1-cell Li-ion battery.

Ordering Information

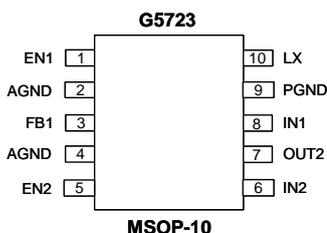
ORDER NUMBER	MARKING	VOLTAGE	TEMP. RANGE	PACKAGE (Green)
G5723-18P71U	G5723G	1.8V	-40°C to +85°C	MSOP-10
G5723-30P71U	G5723E	3.0V	-40°C to +85°C	MSOP-10
G5723-33P71U	G5723F	3.3V	-40°C to +85°C	MSOP-10

Note: P7: MSOP-10

1: Bonding Code

U: Tape & Reel

Pin Configuration



Typical Application Circuit

