

Dual 1.5MHz, 600mA Synchronous Step-Down Converter

FEATURES

- 600mA Output Current on Each Channel
- High Efficiency - Up to 95%
- 2.5V to 5.5V Input Voltage Range
- 1.5MHz Constant Frequency Operation
- No External Schottky Diode Needed
- Adjustable Output Voltages From 0.6V to VIN
- Fixed Output Voltage Options Available
- 100% Duty Cycle Low-Dropout Operation
- 0.1μA Shutdown Current
- Lead Free Available (RoHS Compliant)

TYPICAL APPLICATIONS

- TV Tuner/Box
- Portable Instruments

DESCRIPTION

The FT460 contains two independent 1.5MHz constant frequency, slope compensated current mode step down converter. Each channel integrates a main switch and a synchronous rectifier for high efficiency without an external Schottky diode. The FT460 is ideal for portable equipment that runs from a single cell Lithium-Ion (Li+) battery. Each channel can supply 600mA of load current from a 2.5V to 5.5V input voltage.

Both channel of the FT460 can run at 100% duty cycle for low dropout operation, maximizing battery life in portable application, and will automatically turns off the synchronous rectifier to increase efficiency while enters discontinuous PWM mode. FT460 consumes less than 1uA when enter shutdown mode.

TYPICAL APPLICATION CIRCUIT

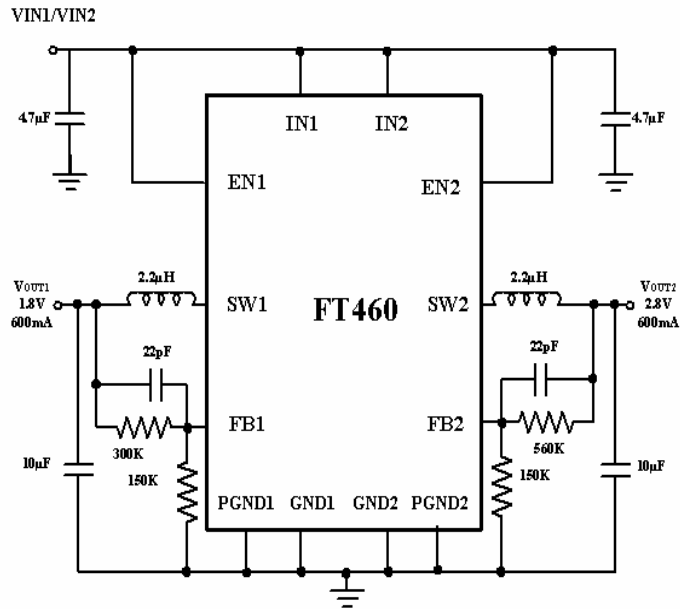


Figure 1: Typical Application Circuit

PIN COMFIGURATION

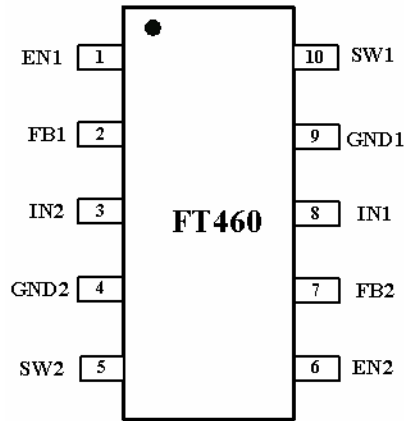


Figure 2: Package Top View (DNF-10L)

TERMINAL DEFINITION

Pin	Name	Description
1	EN1	Enable control pin – Channel 1
2	FB1	Buck regulator feedback pin. To receive the buck regulator’s feedback voltage from an external resistive divider - Channel 1
3	IN2	Input supply pin. To provide the input supply voltage - Channel 2
4	GND2	Ground pin2.
5	SW2	Switch node pin. To connects the internal main and synchronous power MOSFET switches to the external inductor for the buck regulator - Channel 2
6	EN2	Enable control pin – Channel 2
7	FB2	Buck regulator feedback pin. To receive the buck regulator’s feedback voltage from an external resistive divider - Channel 2
8	IN1	Input supply pin. To provide the input supply voltage - Channel 1
9	GND1	Ground pin1.
10	SW1	Switch node pin. To connects the internal main and synchronous power MOSFET switches to the external inductor for the buck regulator - Channel 1

Table 1

ORDERING INFORMATION

FT460①②

Designator	Symbol	Buck Output Voltage – Channel 1
①	A	Adjustable
	B	1.5V
	C	1.8V
	D	2.5V

Table 2

Designator	Symbol	Buck Output Voltage – Channel 2
②	A	Adjustable
	B	1.5V
	C	1.8V
	D	2.5V

Table 3