

PMIC 3-Channels 1.5A, 1.5MHz DC-DC Step-Down(Buck)

■ GENERAL DESCRIPTION

The FH7003C is a Highly integrated power management IC designed to minimize power consumption in consumer and multimedia applications. It is targeted at Tablet, Mobile Internet Devices, Personal Navigation Devices, Digital Photo Frame, Portable DVD Player, Entertaining and Education Machine. Providing a complete system power management solution, the FH4831 integrates 3-channel synchronous buck converter. The converters are optimized for high efficiency (greater than 93%) and feature integrated low impedance FETs.

■ TYPICAL APPILCATION

■ FEATURES

- Input Voltage Range: 2.5V to 5.5V
- Output Voltage as Low as 0.6V
- 100% Duty Cycle in Dropout Operation
- High-Efficiency Synchronous-Mode Operation
- Input Voltage UVP&OVP
- Thermal Fault Protection
- Internal Soft-Start
- Fixed 1.5MHz Switching Frequency
- Over-Current Protection and Hiccup
- Available in a 20-pin 3mm*3mm QFN Package

■ APPLICATIONS

- Digital Set-top Box (STB)
- Flat-Panel Television and Monitors
- Portable Media Player (PMP)

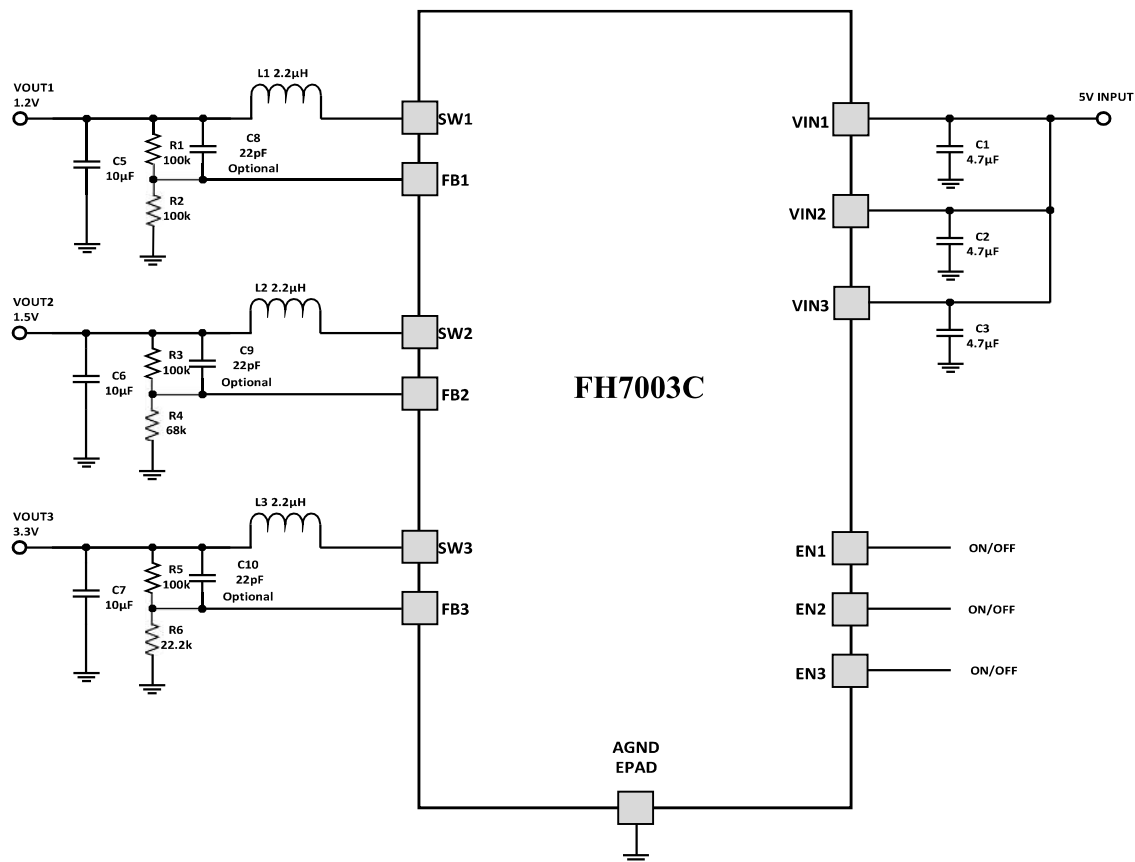
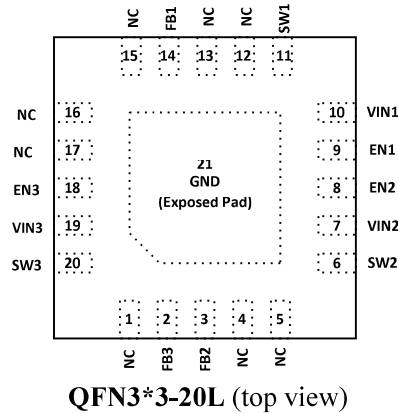


Figure 1. Basic Application Circuit

■ PIN CONFIGURATION



■ PIN FUNCTIONS

Pin	Name	Function
1	NC	No Connection.
2	FB3	Feedback input of CH3. Connect to output voltage with a resistor divider
3	FB2	Feedback input of CH2. Connect to output voltage with a resistor divider
4	NC	No Connection.
5	NC	No Connection.
6	SW2	Internal MOSFET switching output of CH2
7	VIN2	Power input pin of CH2. Recommended to use a 10μF MLCC capacitor between VIN2 pin and GND.
8	EN2	CH2 turn on/turns off control input. Don't leave this pin floating
9	EN1	CH1 turn on/turns off control input. Don't leave this pin floating
10	VIN1	Power input pin of CH1. Recommended to use a 10μF MLCC capacitor between VIN1 pin and GND.
11	SW1	Internal MOSFET switching output of CH1
12	NC	No Connection.
13	NC	No Connection.
14	FB1	Feedback input of CH1. Connect to output voltage with a resistor divider
15	NC	No Connection.
16	NC	No connection.
17	NC	No Connection.
18	EN3	CH3 turn on/turns off control input. Don't leave this pin floating
19	VIN3	Power input pin of CH3. Recommended to use a 10μF MLCC capacitor between VIN3 pin and GND.
20	SW3	Internal MOSFET switching output of CH3.
21	GND(EP)	The Exposed Pad must be soldered to a large PCB copper plane and connected to GND for appropriate dissipation

■ ORDERING INFORMATION

Part Number	Features	Package	Top mark	Quantity/ Reel
FH7003CN20	PMIC DC-DC Buck Iout: 1.50A 3-Channel	QFN3*3-20L	T***** * *** **	3000PCS

- FH7003C devices are Pb-free and RoHS compliant.
- The surface prints of our semiconductor devices are subject to change during the production process and do not involve changes in electrical parameters, and we will not separately state the notice.

Note:

- The information described herein is subject to change without notice.
- ForDevices Inc. is not responsible for any problems caused by circuits or diagrams described herein whose related industrial properties, patents, or other rights belong to third parties. The application circuit examples explain typical applications of the products, and do not guarantee the success of any specific mass-production design.
- Use of the information described herein for other purposes and/or reproduction or copying without the express permission of ForDevices Inc. is strictly prohibited.
- The products described herein cannot be used as part of any device or equipment affecting the human body, such as exercise equipment, medical equipment, security systems, gas equipment, or any apparatus installed in airplanes and other vehicles, without prior written permission of ForDevices Inc.
- Although ForDevices Inc. exerts the greatest possible effort to ensure high quality and reliability, the failure or malfunction of semiconductor products may occur. The user of these products should therefore give thorough consideration to safety design, including redundancy, fire-prevention measures, and malfunction prevention, to prevent any accidents, fires, or community damage that may ensue.