



Power Management Unit (DC-DC)

1 Main features:

- ◆ Internal 5A current limit
- ◆ Single channel maximum continuous on-load current: 2A (total power up to 10W)
- ◆ 1.5MHz fixed frequency operation
- ◆ 2.7~5.5V input voltage range
- ◆ Adjustable output voltage, up to 0.6V
- ◆ PFM mode to achieve light load and high efficiency
- ◆ Duty cycle up to 100%
- ◆ Low static current: 40uA/CH
- ◆ 180° phase-shift modulation
- ◆ Short circuit protection function
- ◆ Overheat protection function
- ◆ Built-in soft boot
- ◆ <1uA shutdown current

2 Typical application

- ◆ Internet Player (OTT-BOX)
- ◆ Digital set-top box
- ◆ Digital TV

3 Product description

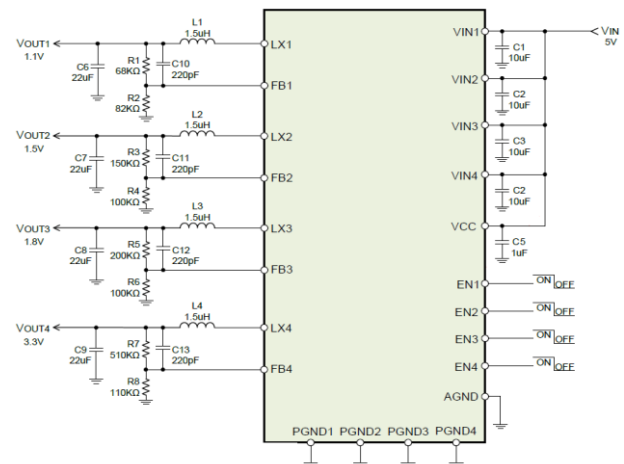
The HL4001 is a 4-CH power management IC that can be used in applications powered by a Li-Ion battery or a DC 5V adapter. It integrates four synchronous step-down regulators that can provide high efficiency at light and heavy load outputs.

5 Parameter list

	Input voltage range	Static current	Turn-off current	Carrying capacity	Encapsulation form
HL4001	2.7V~5.5V	40uA	0.1uA	2A/2A/2A/2A	24-pin 4x4 QFN

The built-in excellent compensation circuit makes the application circuit more simple. In addition, independent enable control gives the designer maximum flexibility.

Typical application diagram is as follows:



4 Product highlights

- ◆ Integrated four-way 2A buck
- ◆ Built-in compensation circuit
- ◆ Low static current
- ◆ Overcurrent protection