



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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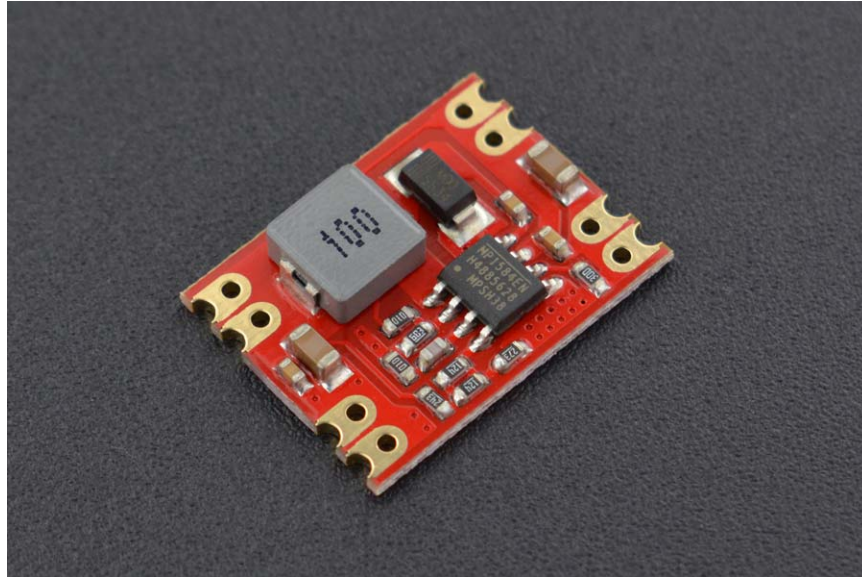
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**DFROBOT**  
DRIVE THE FUTURE



## DC-DC Buck-Mode Power Module (5.5~28V to 3.3V 3A)

SKU:DFR0570

### *INTRODUCTION*

This is a DC-DC buck-mode power module, with input voltage range 5.5~28V and fixed output voltage/current 3.3V/3A. Its work frequency can reach to 0.5MHz. The module has high conversion and tiny body, convenient to embed.

Besides, it has steady output voltage, which can work long time without voltage shift and is suitable for the occasion with high requirements. The product can work with high-capacity and high-voltage batteries to DIY mobile powers. It can also be embedded into projects to provide multiple power options.

### *FEATURES*

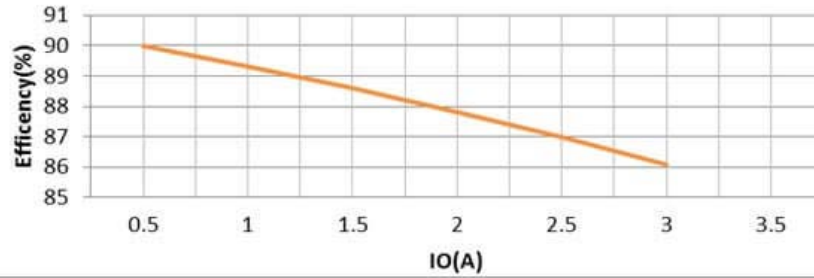
- Small size, stable performance, wide voltage range for a variety of DIY applications

### *APPLICATIONS*

Power supply for controller main-board, DIY current source, floodlight, DIY toy car, communication device, digital radio

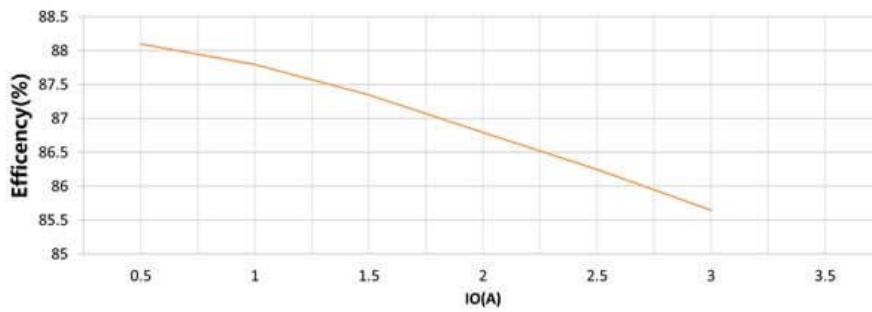
(VIN=8V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current



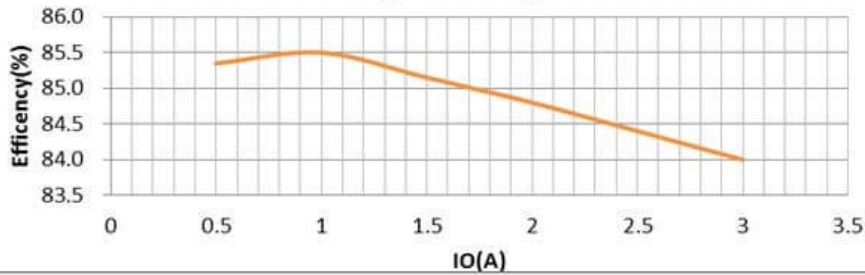
(VIN=12V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current



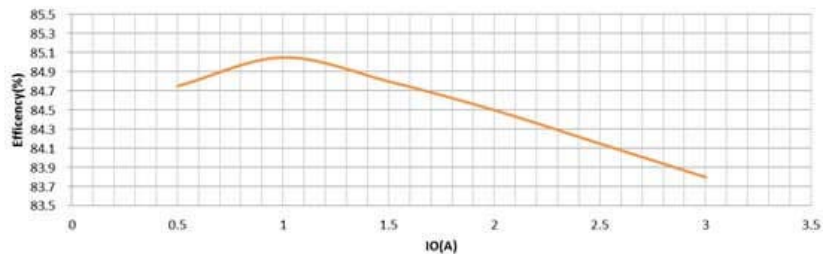
(VIN=24V VO=3.3V FS=0.5MHz)

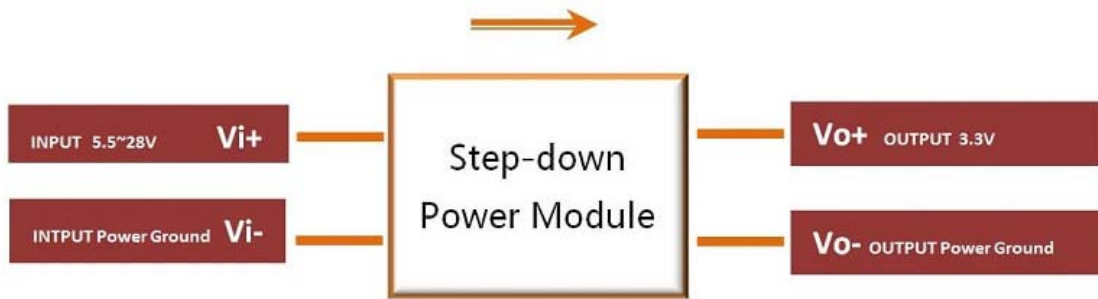
### Efficiency vs Output Current



(VIN=28V VO=3.3V FS=0.5MHz)

### Efficiency vs Output Current





## *SPECIFICATION*

- Input Voltage: 5.5~28Vdc
- Output Voltage: 3.3V
- Output Accuracy:  $\pm 0.1V$
- The Maximum Output Peak Current: 3A
- Full-Load Output Ripple:  $V_{pp} < 50mV$
- No-Load Current:  $I_Q$  0.5mA
- Switch-Off Function: Not Support
- Operating Temperature:  $-20^{\circ}C \sim +85^{\circ}C$
- Operating Humidity: 20% ~ 90% relative humidity, no condensation
- Storage Temperature:  $-40^{\circ}C \sim +125^{\circ}C$
- Installation Method: Chip-mounting
- With or Without Isolation: Without Isolation
- Service Life: 30000h
- Dimension : 16.5×22mm/0.65×0.87inch

### **NOTE**

1. The input voltage must within 28V.
2. Load current should not be in 3A or above for a long time, otherwise it will affect the service life of the module and even burn out.
3. If the load current is relatively high, you should increase the minimum input voltage to ensure normal operation.

## *SHIPPING LIST*

- DC-DC Buck-Mode Power Module (5.5~28V to 3.3V 3A) x1

