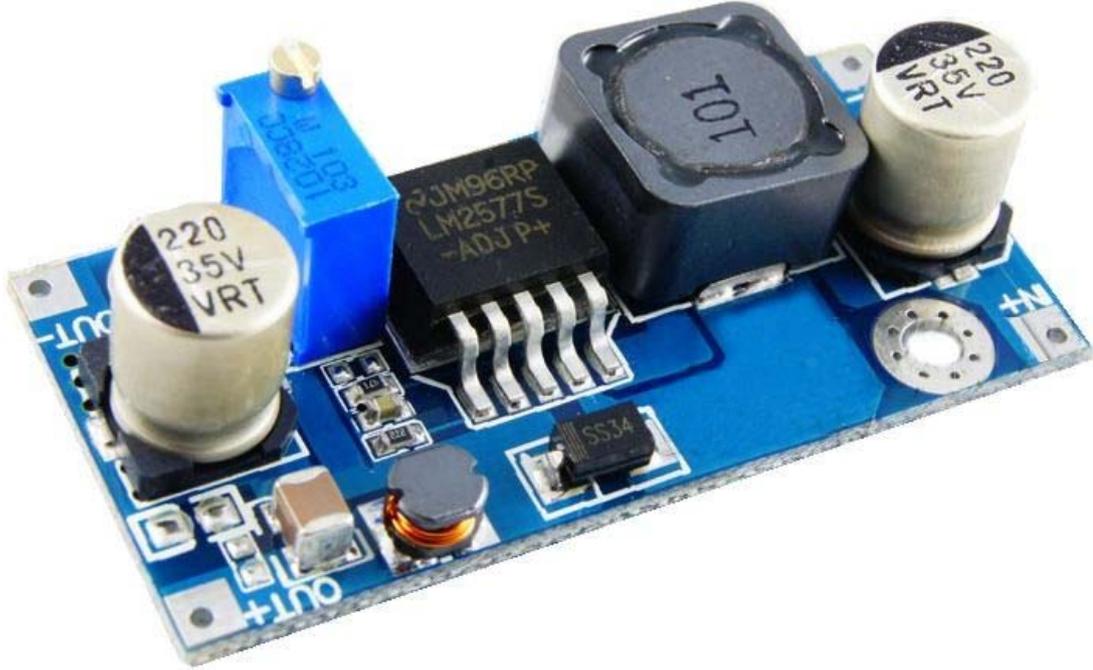


## LM2577 DC-DC Step-Up Module 3-34V to 4-35V DIY



### Module parameters

Module Properties: non-isolated step-up module (the BOOST)  
3-34V input voltage

Output voltage: continuously adjustable (4-35V)

Output Current: 2.5A (MAX)

Input Current: 3A (peak to 5A) (5A current chips)

Output power: natural cooling real power of 15W, plus heat sink 25W (MAX)

Maximum output power = input voltage \* 5A \* conversion efficiency

Output power limit (conditions: heat well):

Input 5V output 12V 1.2A

Input 5V output 24V 0.6A

Input 7.4V output 12V 2A

Enter the 7.4V output 19V 1.2A

Enter the 7.4V output 24V 0.9A

Input 12V output 19V 2A

Input 12V output 24V 1.5A

Conversion efficiency: 92% (Highest)

Switching Frequency: 50KHz

Output ripple: 50mV (Maximum)

Load regulation:  $\pm 0.5\%$

Voltage Regulation:  $\pm 0.5\%$

Operating temperature: industrial grade (-40 ° C to +85 ° C)

(ambient temperature over 40 degrees, to reduce power use, or to enhance heat dissipation)

Size 48\*23\*14 ( L \* W \* H ) ( mm )

## Conversion efficiency:

Input 3.7V output 5V 1A efficiency of 81%

Input 5V output 12V 0.5A Efficiency 84%

Input 7.4V output 12V 0.5A Efficiency 90%

Enter the 7.4V output 12V 1A efficiency of 88%

Input 12V output 16V 1A efficiency of 92%

Input 12V output 16V 2A efficiency of 90%

Input 12V output 19V 1A efficiency of 91%

Input 12V output 19V 1.5A Efficiency 92%

Input 12V output 24V 0.5A Efficiency 89%

Input 12V output 24V 1A efficiency of 88%

Output ripple: 20M bandwidth (for reference only)

Input 5V output 12V 0.5A ripple 25mV

Input 7.4V output 12V 0.5A ripple 20mV

Input 7.4V output 12V 1A ripple 43mV

Input 12V output 16V 1A ripple 30mV

Input 12V output 16V 1.5A ripple 45mV

Input 12V output 16V 0.5A ripple 20mV

Input 12V output 24V 0.5A ripple 30mV

Input 12V output 24V 1A ripple 53mV

Full load temperature rise: 45 ° C

No-load current: typical 15mA (5V to 12V)

Load regulation:  $\pm 0.5\%$

Voltage Regulation:  $\pm 0.5\%$

Dynamic response speed: 5% 200uS

Short circuit protection: No (Please enter the installation of fuses or protection circuits)

Input reverse polarity protection: No, with the reverse polarity protection plate or series diode in the input.

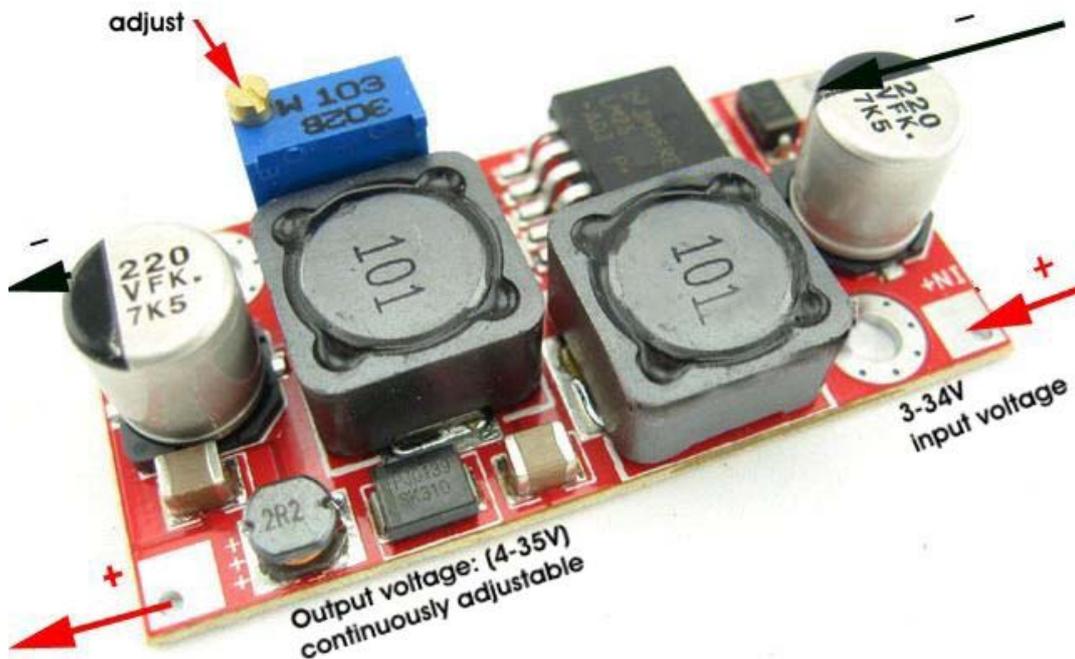
Installation: screws (3 mm in diameter), two mounting holes

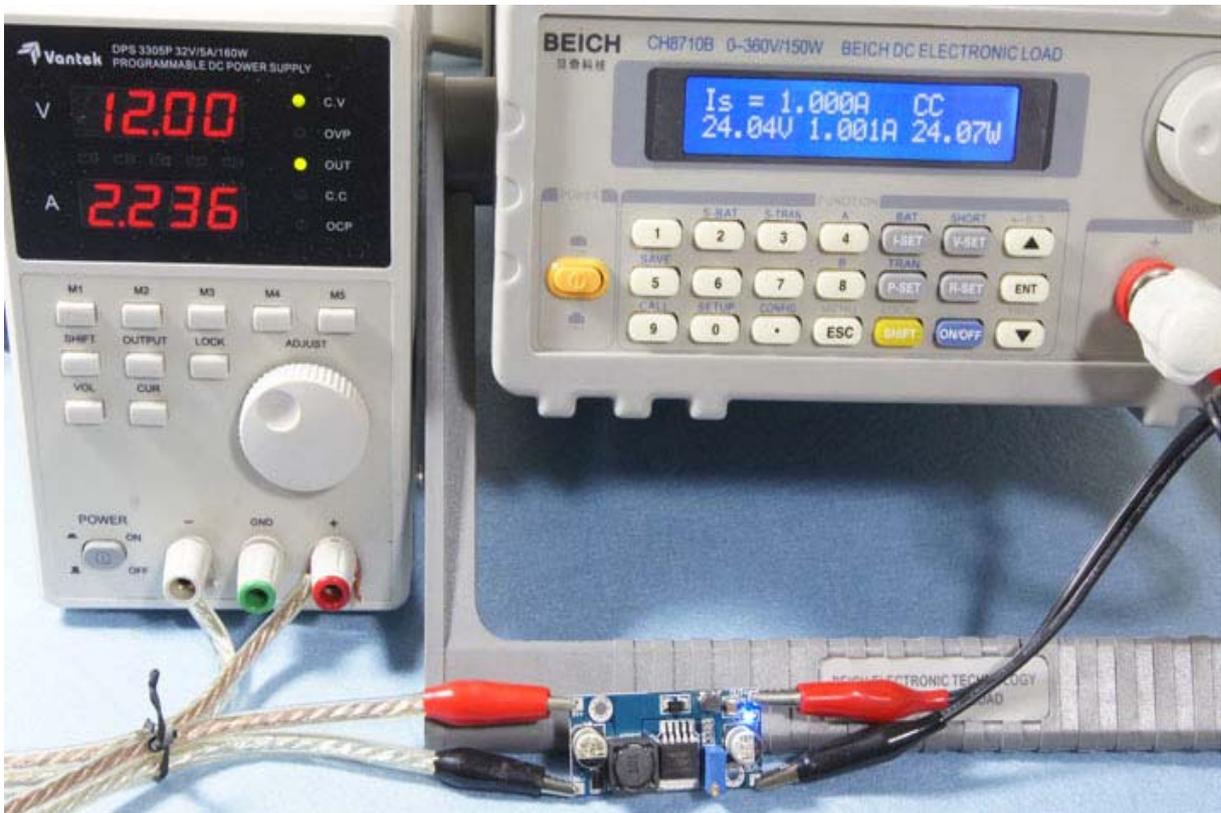
Connection mode: welded, plus pins can be soldered directly on the PCB

The optional pin, radiator shell.

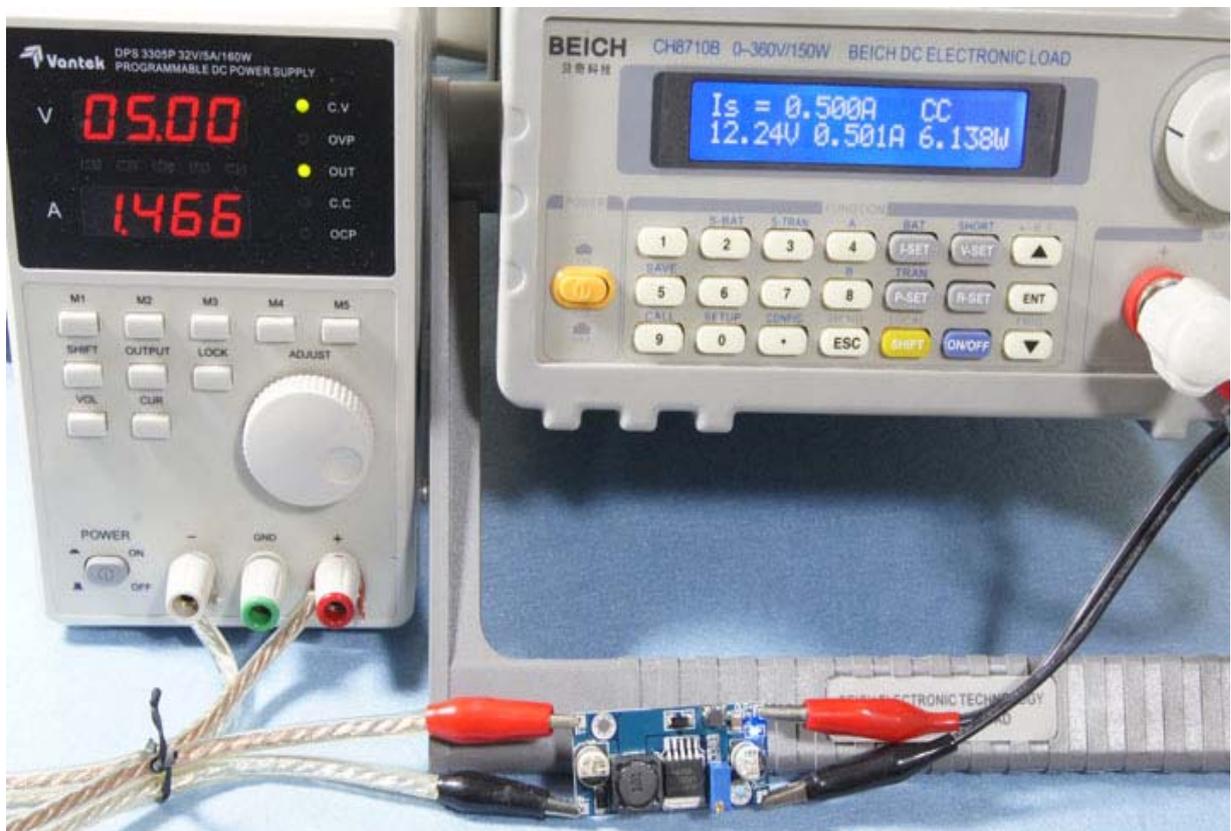
## Features:

1. module uses the LM2577 chip, high-quality, high efficiency (up to 92%), while heat is small, in the case of no additional heat sink can go to 15W, plus a heat sink can then go to 25W output power
2. This module is the use of low ESR filter capacitors original Sanyo can make the ripple voltage as low as 50mV, can be applied to most situations.





Typical efficiency measurement:  
 $(24.04V * 1.001A) / (12V * 2.236A) * 100\% = 89.6\%$   
 (without considering line consumption, the actual better)



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## DC module uses Tips

1. **DIY a mobile power source**, just pick one in the input battery to connect the output 4-35V voltage for your phone, MP3, MP4, PSP power charging, and many other devices, is very simple and easy Oh.
2. **boost charger**, you can use 2 AA batteries or lithium batteries for your 4-35V to charge the device.
3. **for your electronic equipment power supply**, when your equipment needs when the 4-35V power supply, but only a section of your lithium battery-powered hand now, with our step-up to this module can 4-35V, address your Disturbance.
4. **system-level power supply before**, when you do a project when the input supply voltage is lower than the voltage you need (4-35V) of the time, that you choose our modules will be your best choice, do not Debug can work directly on the machine, easy to do and efficient high-power boost.

## Instructions / Notes

1. The module is adjustable boost module, the module can be adjusted above the sinking blue adjustable resistance to change the output voltage. The maximum output voltage is 35V.
2. module above the mark of IN-(enter negative), IN + (input is), OUT-(Output negative), OUT + (Output is) must be connected correctly, otherwise it may cause damage to the module.
3. This module has no output short circuit protection, output short circuit if a long time may result in damage to the module.