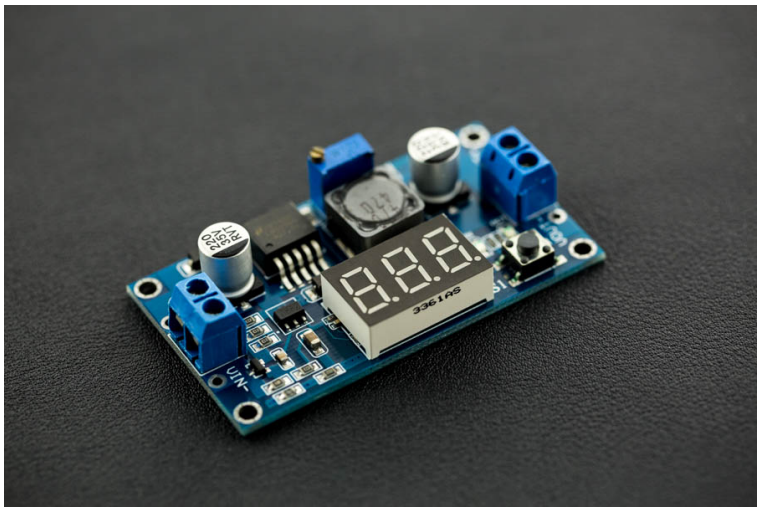

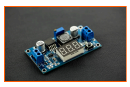



20W Adjustable DC-DC Buck Converter Digital Display

SKU:DFR0379 Brand:Other Reward Points: 49

$4.90

Categories: All Products (https://www.dfrobot.com/category-48.html) Power M (https://www.dfrobot.com/category-70.html) Modules (https://www.dfrobot.com 156.html)

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Quantity: - 1 +

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20W Adjustable DC-DC Buck Converter with Digital Display


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(https://www.dfrob 411.html)


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Total amo
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INTRODUCTION

This is a 20W adjustable DC-DC buck converter module with digital display. It is based on LM2596 3A step-down voltage regulator and supports an input of 0~40V DC with an accuracy of ± 0.05V.

On a regular buck converter there is no display (https://www.dfrobot.com/category-53.html) and you have to measure the output manually with a multimeter, which can be slow and inefficient. This buck converter has a display with the output voltage readout integrated right in to the board. You can change the output by adjusting a screw potentiometer that is also integrated on to the board. Simple!

This module can be used in DC applications (https://www.dfrobot.com/category-70.html) such as batteries, power transformers, DIY adjustable power supplies, 24V vehicle power supplies, industrial equipment, 12V to 3.3V, 12V to 5V, 24V to 5V, 24V to 12V, 36V to 24V and so on.

Adjust the voltage by turning the upper blue potentiometer screw, clockwise to increase the output voltage, counterclockwise to decrease the output voltage.

20W Adjustable DC Buck Converter wit Display

$4.90

In Stock

Quantity:

- 1 +

BUY IT NO

ADD TO CA

FEATURES

- Touch the button to switch the measurement input or output voltage, and an indicator shows which voltage is being measured.
- The display can be disabled if necessary. Hold the button for 2 seconds, and release the button to turn off the display
- With wire terminals, no soldering is necessary
- The input voltage is 4.0 ~ 40V. (The input voltage must be 1.5V higher than the output voltage)
- Continuously adjustable output voltage range of 1.25V ~ 37V. (The input voltage must be 1.5V higher than the output voltage)

- The Maximum output current is 3A, it is recommended to use within 2.0A, higher currents will need a heatsink to dissipate heat.
- The output power is 20W. For more than 15W a heatsink is recommended.
- The unit offers high conversion efficiency, with an average of 88%
- The unit includes reverse polarity protection, overheating protection and short circuit protection

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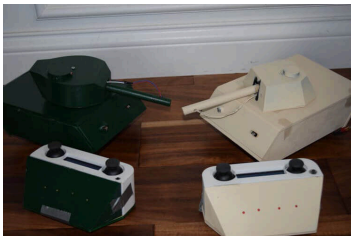
SPECIFICATION

- Input Voltage: 4.0 ~ 40V
- Output Voltage: 1.25V ~ 37V
- Output Power: 20W
- Output Current: 3A
- Mounting Dimensions: 6.1 * 3.1cm/ 2.4 * 1.22 inches (L x W)
- Dimension: 6.6 * 3.6 *1.2cm/2.59 * 1.42 * 0.47 inches
- Weight: 22g

SHIPPING LIST

- 20W Adjustable DC-DC Buck Converter with Digital Display x1

TUTORIAL



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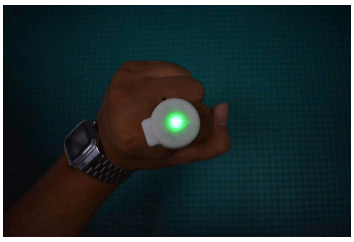

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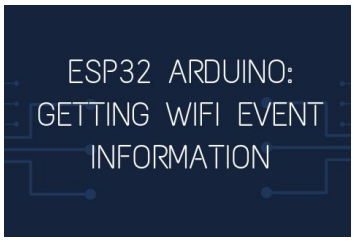

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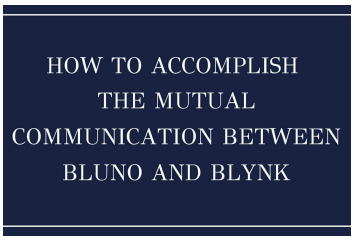

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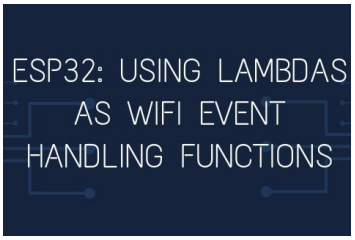

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REVIEW

IoT Projects (https://community.dfrobot.com/tag-47.html)

FAQ

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Des
2 years ago
Hi, what does voltage calibration mode look like? When i hold for three seconds the display goes blank. Is this normal ? Thanks

1 0 Reply Share ›

DFRobot Support Mod → Des
2 years ago
Sorry, there is currently no calibration mode for this product due to a new firmware update.

0 0 Reply Share ›

Darren Moore
4 years ago
Is there a way I permanently turn off the display on this module?, long press only works while power is applied, after power off display comes back, is there a link I can unsolder to disable display?

1 0 Reply Share ›

fearless
8 years ago edited
Is the ground connection shared between input and output (i.e. are Vin- and Vout- tied together)? Or is the ground isolated?

1 0 Reply Share ›

DFRobot Support Mod → fearless
8 years ago
I'm sorry, Vin and Vout are not isolated.

1 0 Reply Share ›

fearless → DFRobot Support
8 years ago edited
In our specific application, we want Vin- and Vout- tied together, so this is fine. Thank you for the clarification.

0 0 Reply Share ›

Lachlan
3 years ago
When i turn the potentiometer the Output display doesn't change. It corrects shows the input value of 24v but will display 0.1v for the output no matter what i do.

0 0 Reply Share ›

DFRobot Support Mod → Lachlan
3 years ago
Hi Lachen,

Please contact us at techsupport@dfroobt.com with a picture of the output and the procedures you are following.

0 0 Reply Share ›

Arunas
3 years ago
Turning the potentiometer when in 'Out' mode has no effect on the output voltage. is this a sign that we have a defective board? We have 12V in and 11.8V out and nothing we do changes the output.

0 0 Reply Share ›

DFRobot Support Mod → Arunas
3 years ago
Hi Arunas,

Sorry about the inconvenience. Please contact us at techsupport@dfrobot.com com with details regarding the defective product.

0 0 Reply Share ›

Tom
4 years ago
I need an output voltage of 4V and less than 1A will this product work?

0 0 Reply Share ›

Jones6789 → Tom
3 years ago
Yes, I use it to drop 12v to 2.7 for my thermostat.

0 0 Reply Share ›

Lego
4 years ago
Not sure on heat sink. Could an appropriate one be an add-on?

0 0 Reply Share ›

Lego
4 years ago
Can these be put in parallel to get higher wattage? Say 3 x 20 for 60 watts?

0 0 Reply Share ›

Dragan
4 years ago
I have two units. Both of them behave the same way.
I use input voltage around 5V. Output is ~0.2V lower.
When I turn pot, output does not change. (verified by external meter)
Have not calibrated internal meter.

0 0 Reply Share ›

Jones6789 → Dragan
3 years ago
Make sure the display is for output voltage not input.

1 0 Reply Share ›

Jim
4 years ago
Unit works well enough but it's rather large...too large really for my purposes....

0 0 Reply Share ›

DJ
4 years ago
Hi, if I set the output to e.g. 12 V, but the input varies between 13.6 and 14.4 (depending on battery charge level), will the output remain at constant 12 V, irrespective of fluctuation at input (13.6 V to 14.4 V)?

0 0 Reply Share ›

Jones6789 → DJ
3 years ago
Yes it should remain as long as your input is over the output voltage

0 0 Reply Share ›

Jan Fritz
4 years ago
Hi, I want to calibrate the output to 7.4 V but when I enter the calibration modus I can only select values between -5 and 5 in hole steps by pressing the button once. I think I can change the output voltage by calibrating the screw on the “blue thing” above the

display. How can I change the voltage to my own desires?

0 0 Reply Share ›

Jones6789 → Jan Fritz
3 years ago

Just adjust your output voltage to your desired level, also make sure your display is for output not input.

0 0 Reply Share ›

Vishal Baibhav
4 years ago

What is operating temperature range for the buck converter module??
We have one setup with buck module installed in it will go to thermal chamber max. 50C.

0 0 Reply Share ›

Erik Olsen
4 years ago

Do you have any STL files for a box that this board would fit?

0 0 Reply Share ›

DFRobot Support Mod → Erik Olsen
4 years ago

Hi Erik,

Sorry, we do not have STL files after confirmation.

0 0 Reply Share ›

Nagasai Thokala
5 years ago

hi,can you provide dimensions and all positions of mounting holes

0 0 Reply Share ›

DFRobot Support Mod → Nagasai Thokala
5 years ago

hi,Nagasai Thokala
Mounting hole distance: 6.1*3.1 (length * width)

Peripheral size: 6.6*3.6*1.2cm (length * width * height)

0 0 Reply Share ›

Nagasai Thokala → DFRobot Support
5 years ago

sir,i want to desolder terminal blocks which are given with,and then solder it with male headers then mount it on pcb.so i need the dimensions of v+ in and out and v- in and out.and is this a good idea or not.thanks

0 0 Reply Share ›

Jones6789 → Nagasai Thokala
3 years ago

if you don't mess up with soldering it should be fine.

0 0 Reply Share ›

DFRobot Support Mod → Nagasai Thokala
5 years ago

Sorry.
We don't have this data

0 0 Reply Share ›

Krishnaprabha S Naik
5 years ago

What is the dimension of the holes used in the board ? Are the Mounting holes M3 ? What about the holes for In & Out ?

0 0 Reply Share ›

DFRobot Support Mod → Krishnaprabha S Naik
5 years ago

The mounting holes are 3mm diameter (M3), and in and out sizes are actually adjustable sizes via a screw.

0 0 Reply Share ›

Guillaume Lequertier
5 years ago

Hi, How to adjust to output voltage ? What do the calibration do ? Thanks

0 0 Reply Share ›

DFRobot Support Mod → Guillaume Lequertier
5 years ago

The on-board voltage meter supports self-calibration mode. You only need to calibrate it once and the value will be stored automatically. The method is as follows:
1. Click the button to switch the display from input voltage to output voltage, vice versa.
2. If "IN" is ON (blue light), hold the button for 2 seconds, then release the button to enter input voltage calibration mode; If "OUT" is ON (red light), hold the button for 2 seconds, then release the button to enter output voltage calibration mode; hold the button for 2 seconds, and release the button to exit calibration mode, all parameters will be saved automatically.
3. In calibration mode, click the button to adjust the value.

Note:
1. Rotate the potentiometer to adjust output voltage.
2. Long press the button to turn off voltage display. Click to turn it on.

0 0 Reply Share ›

James Fulford
6 years ago

Hi, What happens if the input voltage is lower than the set output voltage? Will the regulator output 0V or will there be a decrease in the output voltage by some value?

0 0 Reply Share ›

DFRobot Support Mod → James Fulford
6 years ago

It will not work.

0 0 Reply Share ›

Niko Pante
6 years ago

Hi! I wish to use this, but I think I have to mount it on another board. Where do you I find mounting details of this as I don't see it on the datasheet. I need to know the lenghts spaces, etc of the mounting holes.

0 0 Reply Share ›

Michael → Niko Pante
6 years ago

I was able to mount mine using posts 61mm centre-to-centre on the long axis, 31mm on the short axis, and 3mm diameter. Using M3 screws should also work fine.

Test sample: https://a360.co/2P12r4c

0 0 Reply Share ›

Ricardo
6 years ago

how many days are the delay of delivery to have this product in this address : ZA route de Tours 37320 Saint Branchs, France? thanks

0 0 Reply Share ›

DFRobot Support Mod → Ricardo
6 years ago

https://www.dfrobot.com/ind... Here is the shipping information.

0 0 Reply Share ›

Ricardo
6 years ago

Hi, i want to use this buck converter to have 15.4 W as output, my question is that if i should have any current as input to do the

convertion? beacuse in input we have only 24V.

0 0 Reply Share ›

DFRobot Support Mod → Ricardo
6 years ago
What is the output voltage you want to have?

0 0 Reply Share ›

Ricardo → DFRobot Support
6 years ago
I want 14V et 1.1A in output, thanks

0 0 Reply Share ›

DFRobot Support Mod → Ricardo
6 years ago
The current or power should be related to the load, the current should not be able to changed.

0 0 Reply Share ›

Ricardo → DFRobot Support
6 years ago edited
and if i have 24 V as input and i call 1,1A in output, the power in input are going to be 26.4w?

0 0 Reply Share ›

DFRobot Support Mod → Ricardo
6 years ago
You need to check the input voltage. You can't just use input voltage to time output current.

0 0 Reply Share ›

Peter Ohlmus
7 years ago
Hi there, can you tell me if I can use this buck converter to power 6 x 6v DC motors (output) using 1 x 8.4v LIPO (input)? Thanks.

0 0 Reply Share ›

DFRobot Support Mod → Peter Ohlmus
7 years ago
Hi Peter ! I'm not sure which motor are you using. As this module is 20W, the current of each motor should not higher than 0.5A. We would recommend to get multiple converters based on your power consumption. By the way the output power of the LIPO will also affect.

0 0 Reply Share ›

Peter Ohlmus → DFRobot Support
7 years ago
Ok, thanks!

0 0 Reply Share ›