



## USB to 2.1mm DC Booster Cable – 12V PRODUCT ID: 2778

## DESCRIPTION

This cable is kinda fascinating – it has an integrated boost converter, so you can plug it into any USB port (from a computer, battery pack, etc) and it will give you a higher DC voltage! It's a handy way to power 12V powered devices with a center-positive 2.1mm DC barrel jack from a USB port. We also have a version that provides 9V, and if you just need a passthough cable, here's one for 5VDC.

These are rated at 500mA output, but you can go a little higher, we pulled 700mA and we got a little voltage droop but it worked fine. Probably best not to draw 700mA continuously though!

Here's our measurements for various current draws when we set our bench supply to provide a steady 5V voltage

- 50mA (12.4V output), 150mA, 83% efficiency
- 100ma (12.4V), 290mA in, 86% efficiency
- 200ma (12.3V): 570mA in, 86% efficiency
- 300ma (12.2V): 870mA in, 84% efficiency
- 500ma (12.1V): 1500mA in, 81% efficiency
- 700ma (11.4V): 2140mA in, 75% efficiency

So, overall there's a 85% efficiency at low current draw that drops do about 80% at high current use. There's also a 3 mA quiescent current. Note that often times the USB port voltage can droop too, and in addition you may have power losses with any thin or low quality cables with high resistivity!

## **TECHNICAL DETAILS**

- Cable Length: approximately ~1.15m / ~45"
- Weight: 34.6g



https://www.adafruit.com/product/2778/6-24-19