

By Thorsten Loesch

# Why a USB Power Supply?

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## WE GET ASKED THIS A LOT. WHY WOULD ANYONE NEED THIS BOX?

It is simple. USB carries audio AND power.

Many USB Audio devices power at least some part, often all of the Audio Device from the power supplied by the Computer via its USB Port.

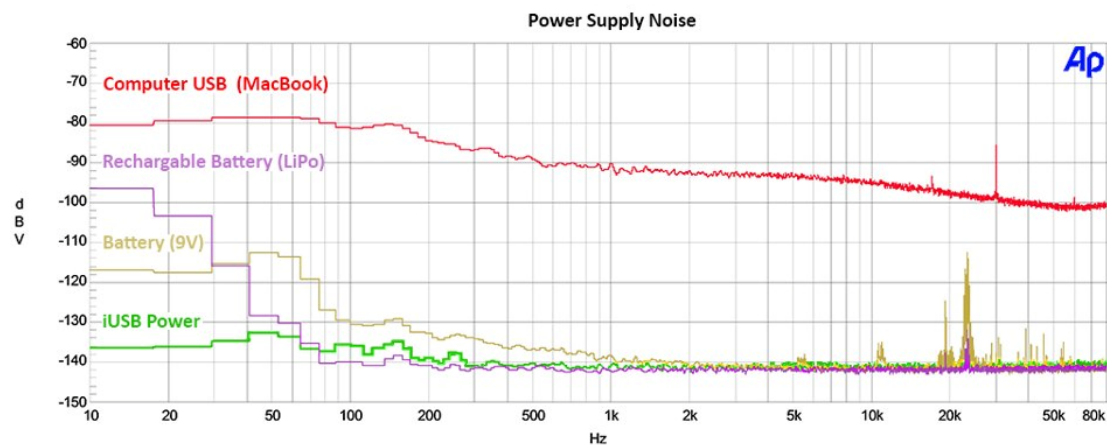
The power supply from USB Ports on PC's is variable in quality, but always contaminated by noise.



Source: ifi

## BATTERIES ARE THE QUIETEST?...AIN'T NECESSARILY SO

Have a look at the measurements below comparing the iFi iUsb Power to the USB Port on a Laptop, running from battery (charger disconnected), optimised for audio and idling (doing nothing)... When playing music this is even worse. For completeness we also include dry cell and rechargeable batteries<sup>1</sup>, as these are often hyped as "ultimate" power sources...



Source: ifi (measured on the Audio Precision II)

<sup>1</sup> [http://www.tnt-audio.com/clinica/regulators\\_noise4\\_e.html](http://www.tnt-audio.com/clinica/regulators_noise4_e.html) for an interesting read on how noisy rechargeable batteries are.

This is a lot of noise! Many common Laptops and PC's put out tens of millivolts of noise. That is as much noise as you often get music signal and much more noise than the delicate, small details and nuances in a musical performance. Another issue is the presence of a ground connection between the Computer and the USB Audio device. This can create earth/ground loops that even if they produce no audible hum or buzz, sound quality can be impaired.



Source: ifi

So it is little surprise that computer based audio often fails to live up to the expected and possible excellent sound quality. So why do manufacturers keep relying on USB Bus Power? Cost plays a role, as does portability and practical considerations.

Adding the iUSBPower USB Power supply and breaking the ground loop using the IsoEarth gives a major improvement in clarity, detail and musicality. Any audio device starts with the power it receives and with the iUSBPower USB Power supply your USB Audio device gets power so pure, it has even lower noise than a battery!



Source: ifi

But the true secret weapon is the ability to break ground loops. We have measured an improvement of over 10 times even in system that are already optimised and have no audible noise.

Welcome to better Computer Audio playback by iFi.



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#### About iFi™

iFi™ is a subsidiary of Abbingdon Global. Abbingdon Global is also the parent company of Abbingdon Music Research (AMR). For further information, please contact Vincent Luke: [vincentl@ifi-audio.com](mailto:vincentl@ifi-audio.com)

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