



AudioQuest

JitterBug USB filter

YEARS AGO, ALL audio fans ever seemed to worry about was clicks, pops and background hiss from their analogue recordings. Over time techniques were developed to minimise these audio ailments, but they were never perfect. When digital audio finally arrived with the promise of noise-free reproduction, it seemed as though we had finally found the ideal recording medium. Alas, we quickly discovered that digital recording comes with its own raft of problems that need to be overcome. Close to the top of this list of issues is jitter.

Generally speaking, jitter is a deviation from what was intended of the signal pulses in a high-frequency digital signal. This can be caused by a poor frequency response of the digital circuits and cables, as well as by electromagnetic interference (EMI), crosstalk with other signals and even mechanically induced noise, especially with CD players. The circuitry in the DAC will do its best to regenerate the waveform, but as with all error-correcting circuitry, it is never 100 percent perfect. It would be far better to eliminate, or at least minimise, jitter before it gets to the DAC. With many of us using a computer or smartphone as a music source and connecting it to a DAC via a USB cable, the USB connection should be as jitter-free as possible.

Bye bye jitter

USB ports can have a significant amount of noise and parasitic resonances (ringing) on both the power and data connections. Components such as a keyboard, mouse and video camera can corrupt the data and power and so to tackle this problem, the JitterBug sits between your computer's USB port and your DAC to reduce noise currents and ringing in the power lines and the data signals. It claims to measurably reduce jitter and in some cases completely eliminate data packet errors. Up to two JitterBugs can be used on a single USB bus at any time.



I connect the JitterBug to a USB port of my PC and then plug one end of a USB cable to the socket of the JitterBug and the other into Alpha Design Labs' GT40a DAC (*HFC 399*). I play a FLAC of Vivaldi's *L'Amore Per Elvira* at 24-bit/88.2kHz both with and without the JitterBug fitted. The first thing that strikes me is that the violin sounds more refined with the JitterBug. It seems to move more out

The bass comes more alive and is more exciting with the JitterBug

in front of the orchestral continuo, which also sounds slightly fuller. I then move to a Vivaldi cantata from the same album to check out the effect on vocals. The soprano responds well to the JitterBug and her singing comes across as more effortless and easy flowing – something that is particularly noticeable during the crescendos.

Next up is Pat Metheny's solo guitar interpretation of *And I Love Her* (16/44kHz WMA). When I remove the JitterBug, the sound image seems to collapse in from all directions and a lot of the guitar's subtle nuances fall

into the background. This impression is confirmed when I re-install the JitterBug. The loud notes now stand out more clearly and the emotion of the playing is much better conveyed. In fact, it is with this recording that I am able to perceive the greatest improvements with the JitterBug.

Speeding things up

Winding up the pace with Fallulah singing *The Black Cat Neighbourhood* with its pounding rhythmic drums and female vocals (16/44 WMA), I feel the bass comes more alive and is more exciting with the JitterBug although the vocals – which seem to have been heavily processed – don't sound any different.

After all that energy, I wind back down with a Nigel Kennedy jazz CD recording of Fats Waller's *Sweet And Slow*. Once again, I find that the bass line is fuller and more authoritative. Nigel's playing is altogether more engaging and effortless with the JitterBug.

To sum up, there is little doubt that the JitterBug is very effective. Music emerges from a blacker background and this is most apparent with solo instruments. For the money, it is a real snip and is a must-have accessory for any digital audio enthusiast. **NR**

DETAILS

PRICE
£39

TELEPHONE
01249 848873

WEBSITE
audioquest.com

OUR VERDICT

