

## Mutec MC3+ USB & Ref10 Nano prove that timing is everything

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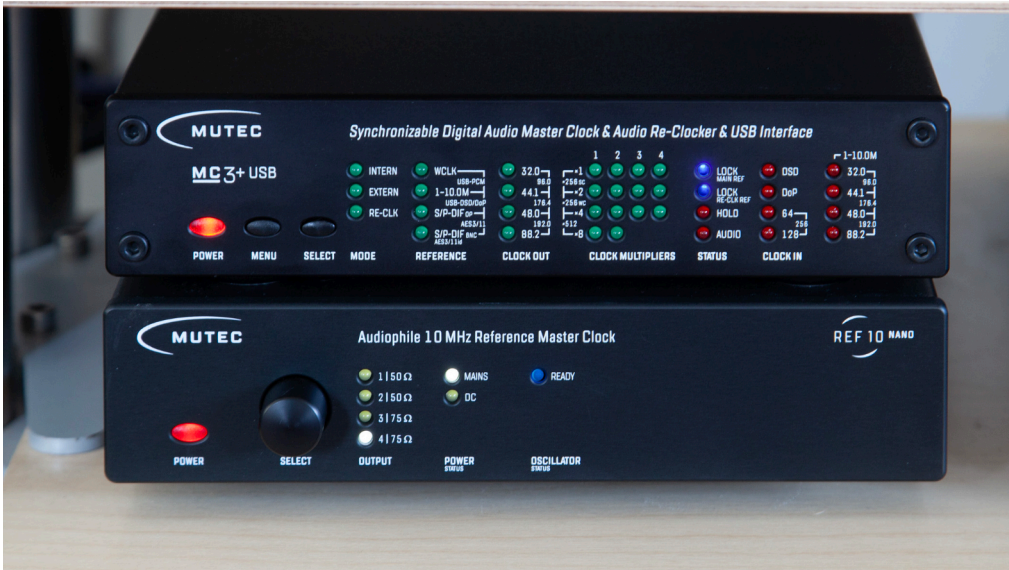
### Mutec MC3+ USB reclocker and Ref10 Nano

I have enjoyed the benefits of reclockers in the past, the little Ideon 3R USB Renaissance MkII was very inspiring for its asking price and the Innuos PhoenixUSB proved to be one of the highlights of 2020. In fact I encouraged a friend who owns the mighty Kii Three/BXT system to use a PhoenixUSB between his Melco server/streamer and the speaker system, it worked a treat. So when I heard about the Mutec MC3+ USB I was intrigued, this is a comprehensively equipped reclocker at a sensible price that will work with most of the in- and output connections found in digital audio as well as having the option for upgrade with an external word clock.

What does a reclocker do you might ask, essentially all digital signals are referenced to a clock so that they remain in synch, when you transmit a digital signal from a transport or a streamer to a DAC it carries this timing signal along with the audio signal. A reclocker does what it says on the tin, in this case removing the existing clock signal and replacing it with a more precise one based on a reference clock that is better than that in the transmitting source. This reduces jitter which is one of the greatest enemies of good sound in digital audio components. The MC3+ USB provides galvanic isolation to reduce noise transmission (a particular problem with PCs connected by USB) and does not change sample rate but can convert DSD/DoP (64 to 256) signals to PCM. It also has a variety of in- and outputs so that it can operate as a hub for multiple sources.

It naturally has an ultra low jitter word clock onboard and this can be used with any other suitably connectable components in the system. So if your streamer or DAC has a clock sync connection on BNC then you can hook it up to the MC3+ USB and have the whole digital chain running from the same clock. Mutec's background is in studio equipment where using a single master clock to run all of the digital equipment is the standard approach. In the replay world only a select number of sources and DACs have the ability to be slaved to a master clock. With its array of 37 LEDs the MC3+ USB looks a bit daunting to audiophiles weaned on the philosophy of less is more, but it's easy to switch off all but a couple of them if you can find the relevant page in the manual. It's also easy to set it up for the configuration of your choice by

using Coherent Systems' pictures of which lights mean what, which are easier to copy than RTM (reading the manual). There are only two buttons on the front of this compact box and one on the back but that's just a power switch. Selecting the required mode is just a case of finding the vertical array you want to change with the Menu button and switching between the options with the Select button.



**Timing is everything**

The tweaker can have hours of fun upsampling and dabbling with formats but those looking for improved sound quality from their digital source can set the unit to non oversampling using the onboard clock and connect their transport or streamer via SPDIF or USB inputs and take one of the SPDIF outputs to a DAC. I started by putting the MC3+ USB in between a USB cable from my Lumin U2 mini streamer and an AES cable to a Bricasti M1S2 DAC. This is a pretty impressive pairing before you add any more devices to the chain, yet this reclocker proves that there is a surprising amount of information that is not getting through. The gains were most obviously with dynamics with more power coming through without any change to volume, it does this by seemingly increasing perceived dynamic range, and the effect is electrifying with a decent piece of music.

Imaging also improves with greater solidity and three dimensionality, notes have depth and shape that makes them sound flat without the MC3+ USB, which must ultimately come down to more precise timing. When everything happens when it should each sound is better resolved or defined, its harmonic structure more clearly presented. The bass line seems more proportional to the vocals and strings on Laura Marling's Soothing for instance, and the whole presentation has a clarity and openness that is usually the preserve of hi res recordings. Putting on a more recent recording, Jan Bang's War Paint (*Reading the Air*), results in a vocal with almost hyperreal presence, you can hear the effects used in the studio but that doesn't stop it sounding like the singer is in the room.

I also tried the MC3+ USB between the Bricasti M19 SACD/CD transport and M1S2 DAC with AES cables going into and out of the reclocker, as soon as Keith Jarrett's *Carnegie Hall* concert started to play the acoustic of the venue appeared like magic around the piano. The





Mutec appears to push the noise floor down so that all the quiet detail that defines the hall's acoustic can be heard, it really is like being in the audience. You can hear the fine detail that makes the performance real and lifelike, the atmosphere, the reverb and the feet tapping on the stage all combine to bring the full impact of the performance into the listening room.

Further listening and experimentation reveals that the MC3+ USB has a calming effect on the sound, it delivers the music in seemingly distortion free form whilst resolving all the low level detail that makes it so compelling and realistic. I contrasted it with a Denafrips Iris DDC which is also reclocker at heart, it seemed darker in its presentation and made the Mutec seem lively but didn't deliver the detail and timing found with the more pricey MC3+ USB. It is almost as if the Denafrips has been voiced to appeal to an audiophile tastes while the Mutec has a pro style warts and all presentation that is ultimately a lot more revealing, which is good for all but the most compressed or crude of recordings. Timing is clearly a strongpoint with the Mutec and we are not just talking about tapping your feet, we are talking about interplay between musicians and spaces between notes. It starts and stops like quicksilver and seems not to blur even the fastest of transients.

#### Ref10 Nano master clock

Nunu Distribution also supplied a Ref10 Nano masterclock and a Coherent Systems 75 Ohm clock link cables to try with the MC3+ USB. This is the least expensive 10MHz word clock that Mutec makes and has four galvanically isolated outputs, two for 50 Ohm connections and two for the 75 Ohms connection required on the MC3+ USB. It has an onboard switched mode power supply and the option to use a separate DC supply instead.

Adding this to the equation does what you might expect, it makes the timing more subtle and sophisticated, a bit like upgrading to a considerably more pricey DAC. It brings a control and ease to the sound that removes any trace of rush or urgency that was still there. In essence it reduces non musical elements and focuses on the signal that you want to hear, and that means more bounce on Dry Cleaner from Des Moines (Joni Mitchell) because the percussion is cleaner, clearer and tighter.

Out of interest I removed the streamer from the system and put the Mutec pairing in between the Melco's USB output and the AES input of an Auralic Vega G2.2 DAC, using JPlay to control playback from the Melco. In the past the USB output on this server/streamer has tended to sound a bit flat and lacking in both imaging and timing skills, it sounds a lot better through its network output into a streamer. However bypassing the streamer brought an extra degree of calm to the proceedings, pushing the noise even further down and resulting in sound that was positively thrilling, with a three dimensional tactility that is very hard to achieve. With good recordings you get that in the room feel that is so vivid that all it takes to transport you to the performance is to close your eyes and focus on the sound. I had a ball with this set up,

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trying it through different amps and speakers and even some rather good Arran interconnects from Atlas. The digital front end delivering so much of the music that it was at times uncanny, the tonal and image depth plus precision timing made for top notch light entertainment.

The last thing I tried was a separate power supply on the Ref10 Nano clock, this runs on 15V which meant that the M2Tech Van Der Graaf MkII could be used for the purpose, at least it could once Nunu had made up a suitable connecting lead. Replacing the onboard SMPS with a very good external example of the breed brought worthwhile rewards and not just with timing, which did step up a level but also to tonal and dynamic contrast. It was quite surprising that almost everything got that little bit more resolved and clear. Timing is fundamental to music and a better power supply clearly makes for a more accurate clock.



### Mutec conclusion

I am becoming more and more convinced that relockers of the calibre found in the Mutec MC3+ USB offer something to digital music users that no other components can match at the price. If you have a decent digital source and a separate DAC I highly recommend giving one a go. The Ref10 Nano is the icing on the cake, and a very tasty icing it is too, bringing a refinement and precision to the result that is extremely engaging in a revealing system. The Mutec components are made for the studio, they do not have milled aluminium cases and beautifully knurled controls but they cost a lot less as a result and deliver the sonic goods in a powerful fashion. In a high end streaming system this pairing is like rocket fuel; I'm going to have to buy at least one of them and I really don't like having to buy more hi-fi.