Testing the Metronome c|AQWO D/A Converter – the reference from France

When a proven specialist in digital technology like the French company Metronome Technologie describes a solution as the reference, it makes people sit up and take notice. And that's exactly what it's supposed to be, the Metronome c|AQWO D/A Converter, which isn't just called a D/A converter, but simply a D/A converter.

Michael Holzinger

When it comes to the Metronome c|AQWO D/A Converter, Metronome Technologie quite rightly does not call it a D/A converter, but the D/A converter. Concisely and with a single word, one expresses the fact that a solution of the reference class is offered here.

It is not a D/A converter, but rather the D/A converter, that's how **Metronome Technologie** describes the Metronome c|AQWO D/A Converter and thus a solution that is at the top of the **Metronome AQWO Series** . With this subtle detail in the description, you make it clear in a subtle but ultimately incomprehensible way how you yourself classify the Metronome c|AQWO D/A Converter, especially since the French company has been a proven specialist for years and days when it comes to "Digital" works. "Digital" is somehow in the DNA of the company Metronome Technologie, one can certainly state this with justification.

Metronome Technology - The specialist for digital technology

Metronome Technologie is a French company based near Toulouse, in the small commune of Montans in the Tarn department. Metronome Technologie was originally founded in 1987 by Dominique Giner, who, based on many years of expertise in the industry, began to develop solutions entirely according to his own ideas and, above all, requirements.

Over the years, the company devoted itself to the development of a wide variety of electronic components and speaker systems, but gradually specialized in becoming a digital specialist.

Today, Metronome Technologie and its sister brand Kalista are managed by Jean Marie Clauzel, and Metronome Technologie in particular focuses entirely on solutions such as CD and SACD players, D/A converters and streaming solutions. Jean Marie Clauzel sees his company's efforts as a mission to create nothing less than the best, solutions that use the latest technology to create an audiophile sound experience at the highest level.

To audiophile passion…

Jean Marie Clauzel describes himself as a passionate music lover, and yes, he does have an audiophile passion, the Frenchman is happy to admit in an interview.

It is therefore all the more interesting that an extremely pragmatic approach is pursued when developing solutions. It is actually above all technology that is understood as a tool and that serves as the basis for what we ourselves like to call the metronome sound. But one shouldn't make the mistake of assuming a special sound signature behind it, in fact the said metronome sound is supposed to stand for absolute neutrality, and thus the perfect implementation of what one likes to describe with the motto "As intended by the artist...".

Development and production in France
Solutions from Metronone Technologie are entirely handcrafted in France, which is very unusual given that you see yourself as a digital specialist. Such solutions are usually just the epitome of what comes as a more or less ready-made "board" from the Far East, and only the final production takes place in Europe.
This is the only way to meet the highest production standards, with each product also undergoing extensive checks, according to Metronome Technologie, in order to always guarantee optimal performance.

Highest specialization - A little family history
Metronome Technologie consciously goes the way of specializing in a few solutions, thus maintaining a rather manageable, but all the finer product range. As already described, it's CD and SACD players, D/A converters and streaming solutions that you peddle, but all solutions with which you don't make any compromises.
For example, you will find the Metronome Classica Series, which has a pure CD transport with the Le Player 3 by Metronome, a pure D/A converter with the Le DAC by Metronome, and a DAC and CD with the Le Player 3+ by Metronome player has.
The Metronome Digital Sharing Range is playing an increasingly important role, because here the classic virtues of Metronome technology are combined with the latest streaming functions. This product range consists of the **Metronome DSC** solutions as a D/A converter, streamer and preamp, the Metronome DSC 1 as a D/A converter and streamer, and the Metronome DSS as a network player and streamer.
And then there's the Metronome AQWO Series, from which our current test candidate hails, with Metronome Technologies describing this product line as one, comprising three distinct devices that meet the same high standards of build quality and sound reproduction, and used individually or in combination can be used depending on individual requirements.
The Metronome AQWO is the latest generation of a D/A converter as well as a CD and SACD player, the Metronome t|AQWO is designed as a CD and SACD transport, and the Metronome c|AQWO is the D/ A range of converters are available.

Metronome AQWO Series
To understand a little what is specifically behind the Metronome AQWO Series, you should look at the origin of the name of this product line. This goes back to the ancient Greek term for "I hear" or "I listen", so it is immediately clear what the focus is on from the developer's point of view.

As already described, the Metronome AQWO Series is understood as a product range of specialists, especially the solutions Metronome t|AQWO and Metronome c|AQWO are each optimized for a single task.

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The Metronome c|AQWO D/A Converter – A converter and nothing more

To get straight to the point, the Metronome c|AQWO D/A Converter is solely a D/A converter, so this system serves only one task, namely the most perfect possible signal conversion from digital to analogue , no more, no less.

D/A converter, the central component of modern hi-fi chains

D/A converters have actually been the central component of every modern audio system for years. After all, we consume music exclusively “digitally”, with the exception of vinyl records, and there is hardly a product in which a D/A converter is not used. It is obvious that this type of product should be given the greatest attention when quality is the benchmark, but it is still done far too seldom.

A D/A converter is ultimately based on no more than one component, if you want to put it in an exaggerated way, and these can be found in streaming clients, CD and SACD players, amplifiers, active loudspeaker systems, AV receivers , soundbars, smart speakers and even Bluetooth headphones. So why worry too much about this building block?

Yes, one can state that a D/A converter is ultimately no more than "a building block", but the differences in the quality of signal processing that can actually be achieved are primarily in the nature of this building block itself and the way in which it is used one uses this to find.

To give a very extreme example to illustrate this topic: a D/A converter in the form of a SoC (Silicon on a Chip) in combination with a Bluetooth module, such as is used in in-ear headphones, will hardly Achieve quality and quality in signal processing, such as a DAC trimmed to precisely these features, which can also be found in a sophisticated circuit in a discrete design that has been optimized down to the last detail.

And that's exactly what Metronome Technologie has done once again with the Metronome c|AQWO D/A Converter. A tool all by itself optimized for a single task, the best possible signal conversion from digital to analog, that is the Metronome c|AQWO D/A Converter.

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Two, and not just one box

The image I just sketched with Bluetooth in-ear headphones came to mind when I unpacked and set up the Metronome c|AQWO D/A Converter for the test, because there were two huge boxes to carry into the listening room. One contains the actual D/A converter, the second box houses the associated power supply unit, and I can't remember which one was heavier, the weight of each one is suitable for arranging an appointment with a chiropractor afterwards.

To conclude this topic right away, a look at the data sheet reveals that the power supply ultimately weighs a bit more. Metronome Technology calls this power pack Metronome Elektra, which is used in the same form for the Metronome t|AQWO CD and SACD transport and weighs a proud 12.7 kg at 430 x 80 x 420 mm. The actual converter "only" weighs 12 kg with 430 x 120 x 420 mm. If you add the extremely stable packaging...

The first contact

After setting it up, the sight of the Metronome c|AQWO D/A Converter caused a small smile, because once again Metronome Technologie clearly proves that they are a thoroughly technology-driven company that pursues a very pragmatic approach and that Attention to detail, above all, in the conception of the circuit, the design of the solutions, however, well, comparatively sober.

So that this is not misunderstood, the design of the entire Metronome AQWO Series is flawless, but one can clearly state that it is characterized by a deliberately simple design language, which probably contributes to the fact that one is here eludes any fashionable trend, which can certainly also be observed in high-end hi-fi.

In fact, the front of the solid aluminum housing, which is available either in black anodized or pure silver, couldn't be simpler, because at first glance the actual D/A converter presents the user with a unique look and only a centrally arranged display as well as a small infrared diode underneath, the associated power supply only gets by with a status LED on the front. There is nothing more here.

By the way, a small note should be given at this point. When setting up the Metronome c|AQWO D/A Converter, you should have the appropriate washers ready, because while the D/A converter can be placed on the power supply without any problems, feet in the form of an aluminum cone are used on the underside of the said power supply . This ensures the best possible decoupling, but with a total weight of almost 25 kg for the combination, it also guarantees permanent marks on pieces of furniture...

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Richly equipped connection field

While the front of the Metronome c|AQWO D/A Converter and its Metronome Elektra power supply, as described, are very reduced, there are a pleasing number of interfaces on the back of the converter.

Electricity, of course, is connected to the Metronome Elektra, here you can also find the main switch on the back. The connection to the actual converter is made via a corresponding system cable, which conveys a high-quality workmanship as soon as you touch it and, with solid plugs that also radiate quality, ensures an optimal power supply.

For digital sources, there are initially two so-called TOS-Link connections, i.e. optical S/PDIF interfaces, as well as two coaxial S/PDIF interfaces. Two AES/EBU form the next connection option and also an I2S, which is once again implemented here in the form of an HDMI interface.

We have already mentioned it, in the opinion of Metronome Technologie, the Metronome t|AQWO and the Metronome c|AQWO form an almost perfect team, so it is not surprising that the Metronome c|AQWO D/A Converter uses the I2S just discussed as a SACD I2S describes, thus the input that is perfect for connecting the CD and SACD transport and the associated signal transmission in native DSD.

The list of interfaces offered by the Metronome c|AQWO D/A Converter concludes with a USB 2.0 interface designed as a USB-B port, i.e. an option for direct connection to a PC or Mac, and a USB-A port, whereby this does not provide the user with a direct function, but is used solely for service purposes.

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32-bit 768 kHz DAC in dual mono construction

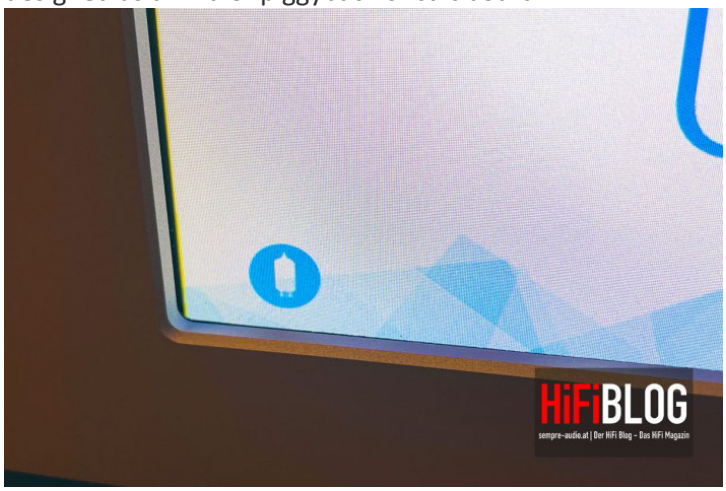
Essentially, the Metronome c|AQWO D/A Converter is a 32-bit 768 kHz converter designed in a so-called dual mono structure. Specifically, this means that two AKM AK4497 DACs from the specialist **Asahi Kasei Microdevices Corporation** are used here, one of these D/A converters per channel.

These D/A converters are still considered one of the best of their kind in the hi-fi world, but after the Japanese company has been unable to supply them for years due to a devastating fire, they are considered to be in great demand in the industry , whereby Metronome Technologie puts on record that it can show corresponding supplies in this regard, which are guarded like a treasure.

Once again we want to come back to what we have briefly indicated before, an excellent D/A converter is more than just the actual DAC component, the most important thing is which circuit you build around it. This results in a unit in which everything is ideally coordinated as best as possible. The complete design of the circuit is therefore perfectly tailored to the DAC used in each case, a process that demands a high level of expertise and experience from developers.

A look inside the Metronome c|AQWO D/A Converter shows that this has once again been solved in a discreet way, and with a breathtaking effort, component follows component here, everything is perfect on the one hand for an optimal separation between the assemblies, on the other hand arranged for the shortest signal paths. At some point you stop counting the built-in capacitors alone, which, arranged in pairs for the two channels, take up a good quarter of the board. This makes it clear why the Metronome c|AQWO D/A Converter weighs an impressive 12 kg despite the external power supply.

At least a small part of this is made possible by a subassembly that is a bit separated from the rest of the circuit, designed as a kind of piggyback circuit board.



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Solid state or tube?

A really outstanding feature of the Metronome c|AQWO D/A Converter is that it not only has an output stage using transistor technology, but can also bring tubes into play if desired, at least if you opt for the corresponding optional

extension Has decided. Then the Metronome c|AQWO D/A Converter is additionally equipped with a Class A output stage, equipped with two glass bulbs, which is a Philips JAN 6922.

Sophisticated power supply
The developers at Metronome Technologie put just as much effort into the Metronome Elektra power supply as they did with the actual D/A converter, which relies on four toroidal transformers as the basis for no fewer than eleven independently controlled power supplies.

Technical key data
The converter of the Metronome c|AQWO D/A Converter works with 32 bits, we have already revealed that much, whereby it supports audio data with linear PCM signals with up to 32 bits and 768 kHz. The processing of DSD is of course also possible, with the spectrum extending up to DSD512, i.e. eight times DSD and thus 22.5 MHz.
Of course, the Metronome c|AQWO D/A Converter brings its full potential to the street via USB if you use a PC or Mac as the source. The manufacturer naturally offers the corresponding drivers for Microsoft Windows on its website, but no drivers are required for Apple macOS.
The I2S designed as HDMI is of course also suitable for processing signals in linear PCM with up to 32 bits and 768 kHz as well as DSD512.
The optical and coaxial interfaces of the Metronome c|AQWO D/A Converter, on the other hand, like the AES/EBU interfaces, are "only" equipped for signals in linear PCM with up to 24 bits and 192 kHz.
For the sake of completeness, it should be mentioned at this point that the Metronome c|AQWO D/A Converter has not yet been identified as Roon Tested. Also missing from the list is another feature that is always asked for, and that is support for content encoded in MQA. The Metronome c|AQWO D/A Converter itself cannot process this directly. This must be done using software on the PC or Mac, for example, if you want to play back audio data encoded in this way.

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Individually adjustable filters
If you want to intervene in the signal processing of the D/A converter in order to adapt its character in nuances according to your own ideas, the Metronome c|AQWO D/A Converter Digital Filter Settings offers six options. You can choose between "Sharp Roll-off", "Short Delay Roll-off", "Slow Roll-off", Short Delay Slow Roll-off", "Super Slow Roll-off" and "Low Dispersion Short Delay".
The selection of the filters is only available for signals in Linear PCM, but not for content in DSD.

Individual adjustment of the output level
The possibility of adjusting the output level of the Metronome c|AQWO D/A Converter is definitely interesting for some people, whereby this applies to both the unbalanced outputs in the form of cinch sockets and the symmetrical outputs designed as XLR connections. The user can choose between 1.4, 2.5 and 3 V here.

6.5 inch display as the central control element
First of all, there is not much to configure or select with the Metronome c|AQWO D/A Converter, ultimately what the user can do here is limited to the selection of the active input, the selection of the Operation of the output stage - solid state or tube - as well as a few adjustments in the settings, most of which we have already described.
The only control element for all this is the centrally arranged 6.5 inch touchscreen display of the Metronome c|AQWO D/A Converter directly on the device, which scores with a clear display.

A simple tap switches between the inputs, in the bottom left corner you can activate the tube output stage via a corresponding symbol, if it is installed.
You can only access the settings using the infrared remote control included in the scope of delivery, which of course also allows you to control all the other functions. In the settings menu of the device, however, you can not only select the said filters and adjust the output level, here you can also adapt the user interface of the Metronome c|AQWO D/A Converter to your own taste.
Whether you decide on a light or dark theme, specify the color of the display from a variety of options, or change the background image, all this is done in the settings menu of the Metronome c|AQWO D/A Converter.
It should also be mentioned that – with the exception of the I2S – individual inputs can be deactivated if desired. This makes sense, for example, if these are not occupied anyway, so that you can jump back and forth between the others more quickly.

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From practice
First of all, we want to say quite frankly that it seems a bit strange at first that with the Metronome c|AQWO D/A Converter you have an extremely exquisite system in front of you, with which - bottom line - not much can be done. Somehow, when we hi-fi freaks buy the finest solutions, our instinct to play is awakened, we want to press buttons, adjust controls and try out a wide variety of settings.
But the Metronome c|AQWO D/A Converter doesn't quite play along with that, you have to state that clearly. Ultimately, the only way to intervene a little in the sound is with the DAC filter, but even with a solution like this in the reference class, that ultimately brings differences that can only be perceived in nuances.
But that is exactly the pragmatic approach of the French manufacturer, which has already been mentioned several times. Metronome Technologie provides a tool for a clearly defined task, and this should be carried out as accurately as possible, if not perfectly, but if possible without much intervention on the part of the user.
So the setup for the Metronome c|AQWO D/A Converter essentially boils down to setting it up, making all the connections and then simply enjoying the music. And we did that very extensively.

Famous performance
We don't want to provide excessive descriptions of what we heard with this solution from France with enthusiasm, because the performance offered by the Metronome c|AQWO D/A Converter can actually be described in one word: fantastic!
It's downright remarkable what details you suddenly perceive in recordings, even if you've heard them umpteen times and therefore actually think you know them. Sure, they were there before, but it takes sophisticated solutions like the Metronome c|AQWO D/A Converter to actually notice them. Incidentally, this does not only apply to hi-res audio content, a very good recording can also sound excellent in the tried and tested "CD quality" and thus 16 bit and 44.1 kHz and come up with an impressive variety of details and fascinating dynamics. So it can be said that a converter like the Metronome c|AQWO D/A Converter can already be in top form here, all the more so when perfect recordings are available in higher resolution, but the resolution alone is not decisive,
Because of course a converter of the caliber of a Metronome c|AQWO D/A Converter cannot work miracles, so we don't want to raise false expectations here, you can hear what's on the data carrier or in the form of bits on the hard drive. The difference to many other solutions, however, is that you really get everything presented here, exactly as it is, nothing is added, but nothing is left out either. This alone reveals much more detailed events in many recordings. Suddenly the artists' gimmicks, which they have cleverly woven into the sound, come into focus, the performance expands and instruments and voices have more space to take center stage without tearing up the overall picture.

The sound always remains harmonious, resulting in a natural-looking whole.
As far as the filters are concerned, we have already described that it is ultimately a matter of nuances, whereby personal preferences alone are decisive for which variant you choose.
However, we would like to expressly recommend the optional expansion to include the tube output stage, although it must be said that Metronome Technologie naturally remains true to its philosophy here and does not aim at showmanship. Even with the tube output stage activated, the variety of details is fully retained, as is the conciseness and clarity of the performance, which, however, is given a delicate mellowness. The activated tube output stage is therefore to be understood as a kind of final touch for an extremely musical performance, which we at least didn't want to do without, so the option was always activated.

Our test conclusion
It has to be said that the air is very thin when it comes to solutions like the Metronome c|AQWO D/A Converter. A recommended retail price of at least € 21,800 plus another € 1,990 for the optional tube output stage, these are prices that correspond to a nice new car. However, it is clear to every manufacturer who moves in these spheres, including Metronome Technologie, that products of this class are only aimed at a manageable target group.
One is all the more aware of the responsibility to offer this exclusive group of customers nothing less than the best, and this is exactly what the Metronome c|AQWO D/A Converter shows in an impressive way.
The Metronome c|AQWO D/A Converter is a tool that was designed solely for the most precise signal conversion possible from digital to analog. Here you do without any "accessories" and concentrate entirely on the one perfect task signal processing. The amount of effort that is put into this will probably wring a good deal of respect from every technology-savvy user and, in conjunction with decades of expertise, is the basis for the fact that the Metronome c|AQWO D/A Converter can be described as a clear reference in its class.

We mean…
One can clearly state that with the Metronome c|AQWO D/A Converter from **Metronome Technologie** , a D/A converter of the reference class is available. The French company brings together decades of expertise that distinguish the company as a proven digital specialist and delivers a solution that, with immense effort, only pursues one goal, namely perfect signal processing. The results you can achieve with it are simply breathtaking, you have to experience this variety of details, this resolution and clear presentation.

(translated from German to English by Google)