



Bricasti Design M3 DAC

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Bricasti Design is a brand more associated with the pro-audio market, but that could all set to change given Dan Worth's enthusiastic review of their £5399 M3 DAC, with options to add a network player and headphone amp.



As with the rest of Bricasti's M Series of electronics, the M3 is fully differential and derives its technology

from the flagship M21 D/A Converter. The M3 is available in a few different forms. As a standalone DAC format with the option of some additional extras – an on-board network player/renderer, a fully balanced headphone amplifier and an optional remote control. I'd strongly suggest envisaging what you may want from the M3 in the long term, as retrofitting any further options would incur additional charges and shipping fees, a new front or rear panel would need installing also as the M3 in its standard form doesn't have blanked cutouts to its casework, which I like as it keeps the unit's fascia looking clean and smart. The version of the M3 I have for review here is the "full fat" version including all of the above options.

The M3 boasts an analogue volume control too, excellent for headphone attenuation or an active speaker setup, and of course for those who wish to drive power amps directly through either its fully balanced XLR or single-ended RCA outputs.



The M3 has the same conversion as the long-standing yet updated M1, as well as native DSD conversion technology which can be found in the M21. The M3's input selection comprises of USB, AES/EBU (XLR), and Coaxial RCA along with Optical SPDIF. The Network Player version will have an additional Ethernet socket on the rear.

The overall unit itself is really quite heavy for the size, being around 3/4 the width of a full-size unit. Its weight comes from two chunky power supplies used to run digital and analogue circuits independently, along with the substantially constructed chassis of the M3, which is beautifully machined, with custom made feet – the M1 and above do have an option for integrated custom made Stillpoint feet, which I would have liked to have as an option on the M3 but nevertheless, the enclosure is very well made with great lines. The front screen has the ability to cycle through all it's menu options using the designated buttons and volume knob as a scroll wheel, all selections can also be made via the optional remote control. The screen can be dimmed or turned off completely, which for many is a must due to placement and is often overlooked by many manufacturers surprisingly. A simple touch of a button will illuminate it again while selections are being made.



Connecting The M3

The SPDIF connections on the M3, when used directly, have some differences, this, however, is mainly when using optical as the source. Like every other DAC I have used, optical just isn't as accomplished a connection sonically when other options are available to the user for a main source component and things are no different with the M3, even with a good quality glass fibre cable.

I have been using for some time now with all my DAC and streamer combinations the Audiobyte Hydra SPDIF converter. It has always been a step up in performance when using the USB output of any streamer, offering re-clocking and separation of the USB +5v power line in favour of a strong linear power supply.

Hooking up each of the SPDIF options, which I can do consecutively from the clock/converter to compare, optical does sound flatter, less spacious and doesn't have as vivid a tonal palette. However hooking up either my OLED TV or NVidia Shield offers great sound quality and in comparison to my other range of DACs, such as the Benchmark DAC3, B.M.C. UltraDac or Mytek Brooklyn for instance gives an undeniable step forward in sound quality with notably more substance, control, clarity and detail.

Each of the RCA and XLR digital inputs, however, sound fantastic and incredibly similar to each other, to the point that unless listening so critically, for so long and late in the evening when there's silence all around, you aren't going to notice the fractional difference in background silence between the two connections,

especially with anything less than a highly transparent system.

Using USB direct from the streamer is also not as good as using the external clock/converter, which when in the chain and using either AES or RCA coax, gives a far more spacious, vibrant and tonally rich sound that has a greater 3D image and more abundance of micro details and micro dynamics. I have a good range of high-end USB cables, with the absolute best being the Gobel Lacorde Statement but the pitfalls of USB still remain and once the noisier power from the source is removed via the Hydra, things rapidly clean up and become more natural.

As the M3 offers a better sound when being fed this way it safe to say that its own abilities aren't questionable and the correlation between the comparisons made between connection types reflect my historical findings with any other D/A Converter. The USB direct option comparative to the USB to Hydra and SPDIF out preferred method would hint at two scenarios. One that the USB chipset of the Hydra is better than the one within the M3, or two and most sensibly that the replacement of the streamers clock with the introduction of the Hydra in the signal path is giving a superior clocked signal to the M3, along with the use of a Paul Hynes top of the range SR7 Linear Power Supply replacing the +5v feed from the streamer is indeed removing a lot more streamer expelled noise into the circuit. Although only being able to use a SPDIF connection in this instance limited to 192khz isn't ideal (I2s over HDMI on the M3 would have been much preferable and a connection type I also could accommodate to use higher bit rates and DSD). Consequently, I find the sound far more tactile, detail rich and engaging using this combination of connections and will be my choice to proceed with this review.

The Sound

After a couple weeks of constant run in time with a huge playlist on repeat, with just the DAC and streamer running with some intermittent listening, I felt that 350 hours or thereabouts was offering a consistent sound. I will add, however, that out of the box the M3 sounded pretty incredible pulling me away from the B.M.C. UltraDAC which was in situ as the main DAC since the review I conducted of it a few months ago.

The biggest difference initially heard whilst critically listening to these two DACs side by side was a more heavily fleshed out and richer top end, more three-dimensionality within the image set and an overall more mature tonal palette. The M3 has a purity of tone that is really quite remarkable, closer to that of a good valve based piece of equipment, but clearly still solid state. It doesn't have the warmer character of a valve unit but it gives that conciseness of a note, with liquidity and naturalness.

For instance, listening to an acoustic guitar solo will give a concise leading-edge immediacy that fleshes out with exemplary timbre as the note reverberates and hangs and then naturally and most of all convincingly decays. Spatial awareness also plays a big part in enjoying an acoustic guitar and the Bricasti sound allows for each of these decays to remain audible as the next note overlays the previous, giving far better realism.

Although I fear as we go along my opinions on the DAC may become a little repetitive, I will state quite categorically now that each genre and even each piece of music I have been listening to has its own characteristics and sounds utterly different – the M3 has the ability to allow each piece of material to sound truer to its recording than any of the previous DACs I have owned or had in my system and to characterise its sonic signature as imposing a similarity over each piece of music would just be erroneous. Although the

M3 will lend its sonic attributes to each type of music it will never enforce an agenda on proceedings.

As I type “ We Built This City” by Starship has started playing – I was drawn to the bass line presented by the M3, that gives a very resolute and controlled rhythm, which underpins this DAC’s incredibly transparent midrange, and through the all-ceramic drivers of my Ayons is just so full of clarity, bags of informative detail and is very engaging. The top-end is just so polished and analogue-like which offers tremendous balance, is airy and wonderfully spacious, giving a perceivably larger and arguably taller soundstage than the B.M.C. I have been using, the Lindemann, or any of the studio-based DACs I have. The most noticeable attribute within the top-end sounding so solid and articulate is the richness of its captivating tonal balance. This accomplishment isn’t one-sided by any means, micro-details are clearer to hear and the micro-dynamics of these smaller details each have their own fullness of tone rather than simply being grouped and packaged with a linear signature designated by a preconfigured voicing strategy, rather than when you listen to a romantic and rounded vintage valve amplifier sound, where everything sounds warm and rosy.

Midrange is better explored and explained for me with the M3 too. Emily Sandé’s live and acoustic version of “Suitcase” shows off her beautiful vocal very well. The guitarist which accompanies her can be heard and realistically imagined to be sitting a couple feet to the left of her and fractionally behind her on the stage, whereas the tambourine can be clearly designated as a little further out to the right and a few feet further back than the guitarist. More than often when listening to this track everything sounds flatter and more as a grouped event within the midrange, whereas now the greater individuality of the instruments and singer are more clearly defined and the additional space plays its roll in adding to the realism and beauty of the track as it contains far more believable instrument decays and has the acoustic interactions and reference points giving more sense of the venues setting.

Newton Faulkner’s cover of Maroon 5’s “Payphone” from the Live in London album has Newton’s vocal nice and tall at the forefront and the guitar is clearly heard to be played by himself and realistically positioned on his body, there’s a wonderful feel to the acoustics of the venue again here and crowd applause comes from a lower point in the soundstage and closer to me – almost like I’m sat listening to the performance just a handful of rows back from the stage. The sensation I get is almost like I’m floating above their heads with the applause and interactions seemingly rising out of my floor space in-between myself and the speakers, with me being more level with the artist on a raised stage. Whether this is correct in resembling the reality of the live performance I’m not sure as I’ve never booked a floating seat previously! It does, however, feel true to the recording at least. Newton’s vocal is once again strong, natural and expressive with notes and acoustic space being completely convincing.

I also like to have a listen to a bit of Boris Blank and Yello from time to time, especially when demoing equipment. The attributes the music presents for me are mainly to ascertain resolution, leading-edge control, overall dynamic presence and tonal balance across multiple layers. The M3 is a very dynamic and very resolute part of the overall source compliment with my streamer, the xolone which I love for being the first streamer I ever heard which sounds truly analogue.

As mentioned previously, the M3 does a sterling job in giving each note its own transient response rather than being grouped into a bracket of dynamic boundaries, creating bottlenecks in expressiveness. Leading edges are tight and crisp and notes can stop on a dime, but don’t let that comment give you a false sense of belief that everything sounds overly fast and accurate because it simply doesn’t – synthesised top-end notes

will if that's the way they were intended. Other notes which have more longevity to them have their own playful area in the soundstage to explore and behave as necessary. The M3 does this trick so tactfully that unless I knew better I'd swear the system was dual mono with multiple independent power supplies, rather than separate supplies only for digital and analogue – I'm starting to fantasise about the M3's older siblings now and, although I haven't had a chance to hear each of them, the mind does speculate about what they must offer.

After a couple albums by Boris Blank and feeling as though I was inside an almost surround sound like environment whilst listening I played a number of tracks from Bliss. These guys do the feeling of being encapsulated with sound very well and with my listening position being more near-field, it's something I love and always try my best to obtain when setting up any system. I love the scale a large speaker system can give being situated at the end of a room, especially when recreating live performances, but my personal leaning is being more inside the "musical bubble" for want of a better phrase, which is why I like good depth to my music to balance this out.

Bliss offered exactly what I was learning to expect from the M3 – imagine being seated with your eyes closed in an unfamiliar room, not knowing its dimensions or how close you have been seated to the speakers. The sound you hear sounds close as a track begins, it's wide and full of out of phase notes that sweep around the peripherals of your hearing. A drumbeat begins centre stage and notes begin to wash from left to right behind this while curving toward the peripherals, which are dancing with different transients at varying heights, and then the main focus is cast to the filling of varying instrument notes within the now developing centre stage in multiple layers. A bass drum starts rolling outwards on a wide-angle low down from the centre and tiny pings and sounds like swarms of fireflies start dancing all around the front of the soundstage.

What the M3 offers is a fatigue-free sensory overload...almost; with this type of music the brain fires on all cylinders, like eating cuisine full of many complex, delicate and perfectly balanced flavours. Exploring all of the small nuances and finely finessed details it takes a bit of time to adjust and begin directing everything, but once acquainted with the new information provided the experience is just so much more satisfying. You could also compare it to a more complexly flavoured wine, if that's what you enjoy.

If you were required to draw what you heard it would have to be within a 3D CAD program on a computer as no piece of paper would suffice, it's an exciting thing to witness that can only be compared to a virtual reality type experience, with the ability to walk through the sound as you would the virtual world.

What I also find very endearing about the M3 is its capability to remain controlled when playing the likes of Def Leopard's "Hysteria". Being able to pull apart the busyness of some passages, allow for the break-up of electric guitar to not sound too harsh or overbearing, and still have the ability to represent a vocal with such tonal accuracy is a testament to the Bricasti design team.

Much the same goes for classical music. During large crescendos, whereas some equipment will make the excuse that too many cooks spoil the broth, the Bricasti has an audible time and space for each instrument and offers fantastic timing which in turn shows up excellent transient individuality of each instrument. The beauty of classical music can be overwhelming and fatiguing at times when a system can't pull it all apart and allow each musician and instrument the ability to be focused on whilst still remaining part of the overall

performance. The M3 makes great efforts to achieve this and does a wonderful job. Another point of mention related to this genre is how the M3 deals with piano, the absolute accuracy of recreating a piano is something that is almost unobtainable from any Hifi system – very expensive and well put together systems can get close, but it's one of the most difficult instruments to recreate faithfully in my opinion. Now, of course, I'm not saying the modest M3 does, but it does a better job of recreating the tonality and decay of a piano in my system than any other DAC or source I have heard and for that I applaud it.



One Box Solution?

As a stand-alone unit, the M3 is a masterclass all of its own. A single unit on a desk with a set of active speakers and a pair of headphones, with a NAS located somewhere in the home or office is actually all that

one would need to enjoy the beauty of the Bricasti sound – so I did, I set it up just like that!

I have a pair of Focal CMS50 actives which I hooked up to the M3 with a pair of XLR cables and unlike the B.M.C which gave me the same option previously, I was able to stream music directly from my QNAP NAS across the network. Using the Astell and Kern App.

Note: in my tests I found music streamed from either a Mac or PC to sound quite a bit better than a direct USB connection.

I have heard these Focals with a huge range of DACs and have had many smaller setups with the Focals, and although those setups have changed dramatically over time the Focals have always remained. Although the Bricasti would undoubtedly deserve a higher-priced performer, I love them for their accuracy and honesty, allowing attached electronics to show their true character.

The M3 made the Focals sound at their best to date and by quite a margin. The M3's purity of tone simply has to be heard to be appreciated and the experience right here right now has surpassed what I believed the capabilities of the CMS50s to be. I championed them hugely in the B.M.C review (*and rightly so*) but this is on another level. Treble is fleshed out more analogue-like and is more lucid, midrange expression and tone is more realistic and palpable, and basslines are as dynamic as in the main system showing consistency in the M3 – proving to my mind that the M3 is the mastermind behind the new performance in each of these systems.

Listening to Iris by the Goo Goo Dolls explored the further weight I had in this setup now, – it usually takes a fairly well put together system to express the detail in the bass within this track, along with the control over the chorus, where things can get a bit splashy at higher volumes. Whereas Bliss' "Wish You Were Here" album sounded as detailed as it should, conveying a remarkably large soundstage, fine delicacies and fantastic spatial awareness.

The other option available for anybody wanting to purchase an M3 is a fully balanced headphone amplifier and, as part of a standalone one-box solution, a very viable option that will give an additional layer of flexibility. Remember to factor in the price of the remote too as it's really quite expensive and would be a very useful option for headphone listening.



I have a pair of Meze Empyrean headphones and have the 4 pin balanced XLR cable option, so naturally, I wanted to pair the two together. The Empyreans are an incredibly special set of headphones and although I find them to be one of, if not the best headphones I've heard, preferring them over many of the other high-end offerings. The M3's headphone amplifier is not just an afterthought and it is actually very capable and drives the Empyreans incredibly well. The sound I received has the full heart of the M3's DAC. As with all previous testing done M3, tonality and timbre are firstly and foremost the special ingredients with realistic tempo, timing and background silence come a very close second. The amp is quiet but I have heard more eerie silences and more lucid tones from some very high-end headphone amplifiers, but I have to take my hat off to Bricasti when I say that the addition of a headphone amplifier is great and for that headphone amplifier to be as good as it is, well, I'd feel like I was getting good value, and with a reasonably priced set of headphones I believe I would be 100% satisfied with the performance.

So, to level the playing field a little more and as I was able to add a reasonable amount of reality to the comments made above I did. I introduced my long-standing and much loved Audio Technica 2000X's to the M3. These headphones were around £2000 less in price than the Empyreans at £750 and have been the longest-lasting pair of cans I have ever owned. The Audio Technicas sit on the edge of being too much and a bad recording can really be highlighted with them, but when fed good recordings and on the end of something well-voiced I just love what they do. The M3's DAC/Amp combination must have given them a good talking to, put them firmly in their place, explained the boundaries, and warned them should they overstepped the mark because what I gained from their top-end especially was the most analogue-like, controlled, and expressive performance I have had from these headphones. I gained additional bandwidth but with less hardness/harshness There was more space and air in the upper and middle frequencies and the signature Bricasti clarity that polished the midrange. Being able to do all of this while stacking the layers in the way it did was marvellous! Yes, the Meze Empyreans are superior headphones, and yes they do things that the Audio Technicas can't, but for a reasonably priced pair of headphones with a reasonably priced headphone amp which lives inside the DAC (*without the need for a separate box and cabling*), I was very impressed with the level of performance.

Conclusion

Being a pro-audio company, Bricasti has stepped firmly into the home audio sector, and although I own, have owned/heard a lot of DACs from most of the big names in this category I find the Bricasti sound to be the superior option – at least for me.

Attempting to convey my experience with the M3 when I have so clearly championed and given great reports to many other DACs can at times be awkward? At the time of writing each review I will if warranted state that a particular DAC is my new favourite, or express that one offers a range of characteristics which are better than the previous champion. There are also considerations such as price against performance, features and pure enjoyment to factor in.

It's all very subjective and similar in scenario to the average enthusiast – do you often have a scenario

where a friend or family member mocks you by saying “You said the last one was the best one!” and laugh a little? This also happens to me – your not alone! The reply to this is always the same for us all “Yes, it was at the time” and it’s very much the same scenario with reviewing, although sometimes the goalposts can shift far quicker – needless to say, the M3 at this present point in time is my personal favourite DAC to date and by a good margin. I’ve personally heard maybe two DACs that would compete sound-wise with the M3 (*though I obviously haven’t heard them all*) but for me, for sound quality, build quality, options, features and usability, the Bricasti M3 ticks all the boxes.

To sum up the sonic signature of the Bricasti M3, I’d say it has an extremely wide bandwidth and high resolution. It has an analogue quality and a purity of tone which I have not previously heard in a transistor-based DAC – the other competitors I mentioned that would rival its sound are all valve and far more expensive and within its price range I’d struggle to find anything to better the M3. The Bricasti is incredibly expressive dynamically, has detail in spades and is so spatial that the realism of performances keeps surprising me still now. The M3 doesn’t just create great music, it creates experiences and has shown me, that even now, after all this time, there’s more to be had from my system.

If you don’t require the network player, headphone or remote options the M3 is a ridiculous performer for its price and I look forward to hearing what in the future can compete with it – it’s going to be an interesting time for the M3 going forward as it will not be being returned!

AT A GLANCE



Build Quality: Beautifully finished in a substantial chassis with anti-vibrational qualities and looks good to boot.

Sound Quality: stunning, analogue, just so natural and tonally accurate. Incredible resolution and dynamics. Mixes finesse with robust details and times superbly.

Value For Money: The standalone DAC is fantastic value for money and the options represent great value. The remote is far too expensive, however.

Pros:

Great range of options

Huge system flexibility

Signature pure tonality

Wide resolution bandwidth and transient response

Cons:

Remote control is very expensive

Pricing:

DAC: £5,399

Network Player: £1119

Headphone option: £529

Remote Control: £529



Dan Worth

Technical Specifications

Digital Inputs

Connectors: XLR: AES/EBU 24 bit Single Wire

RCA & BNC: SPDIF

Optical: Toslink 44.1- 96k

USB: USB 2

RJ45: Ethernet

Sample Rates AES, SPDIF: 44.1 kHz, to, 192kHz, DSD 64fs as DoP

Sample Rates USB: 44.1 kHz, to, 384kHz, DSD 64fs, 128Fs, 256fs Native

Sample Rates Ethernet: 44.1 kHz, to, 384kHz, DSD 64fs, 128Fs

Jitter: 8 psec @ 48k / 6psec @ 96k

Balanced Analog Outputs

Connectors: XLR balanced (pin 2 hot)

Impedance: 40 ohm

Output: @ 0 db front panel +14.3 dbm 4V RMS (bypass mode)

D/A Conversion:

PCM 24 bit delta sigma 8x oversampling
NDSD pure 1 bit conversion for DSD
Frequency Response @44.1k: 10 hz- 20 kHz +0dB, -.2 dB
Dynamic Range: >120dB A-Weighted
THD+N @ 1k: .0008% @ 0dBfs / .0004% @-30dbfs

Unbalanced Analogue Outputs

Connectors: RCA
Impedance: 40 ohm
Output level: @ 0 db front panel = +4db 2V rms
Frequency Response @ 44.1k: 10 hz- 20 kHz -.2 dB
Dynamic Range: >120dB A-Weighted
THD+N @ 1k: .0008% @ 0dbfs / .0004% @-30dbfs

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