

HAUTE
FIDELITE
référence

**BRICASTI
DESIGN**

M15

Standby

Power

Bricasti Design



EXCEPTION

The constructor American, always positioned at the edges of both worlds audio, sharing the same requirements of high quality and musicality, that of the pros, on the one hand, and that of the audiophiles, on the other hand, returns with very new interesting.

PBased on the fact that the best is the enemy of the good, Bricasti has improved its M1 DAC, which can be found both in recording studios and among discerning audiophiles throughout the world. We tested this product a little over two years ago. This time, Bricasti offers a range consisting of a DAC controller, the M12, the stereo power block, the M15, but also M28 mono blocks. These products with a sober and timeless design, of great beauty, are reminiscent of another well-known American brand: the anthracite aluminum profiles and the red displays could have led to confusion...

THE M12

Resting, originally, on real Stillpoints feet (like the M15), the elegant box with a bottom cut from a mass of solid anthracite anodized aluminum of this controller contains analog circuits, which can be guess thanks to the presence of a balanced audio input and another unbalanced one. But this device also integrates other analog circuits, such as the R/2R volume control which acts very fluidly over a range of 90 dB, in steps of 1 dB, this principle excluding any



TECHNICAL SHEET

Origin: United States

M12

Price: 17,000 euros

Dimensions:

432 x 305 x 178 mm

Weight: 6.8 kg

Digital inputs:

1 USB B, and 3 S/PDIF (1 Cinch, 1

BNC and optical Toslink), 1 RJ45

Ethernet port

Maximum sampling rates: 192

kHz (S/PDIF and AES), 96 kHz

(optical), 384 kHz and DSD64

and 128 in DoP (USB),

192 kHz and DSD64 in

DoP (Ethernet).

Jitter: 6 psec at 96 kHz

Stereo analog inputs: 1

unbalanced on RCA, 1

balanced on XLR

Analog outputs:

1 unbalanced on RCA, 1

balanced on XLR

Output voltage

balanced/unbalanced: 5.2 V

(+16.5 dBm)/1.2 V (+6 dBm)

Output impedance

XLR/RCA: 40 ohms

Frequency response

analog at 44.1 kHz: 10 Hz to

20 kHz + 0 dB, -0.2 dB

Harmonic distortion rate

+ noise: < 0.0008%

Dynamic range:

> 120 dB A-weighted

Conversion

digital/analog:

24-bit Delta Sigma, 8x

oversampling

On the coast, we see the connectors entrances and exits analog.

The central area brings together all the entrees digital (S/PDIF coaxial RCA, BNC and optical), AES, USB and RJ45...

signal degradation, including very low amplitude audio information. It also has numerous digital inputs to suit all scenarios: an AES input, three S/PDIFs divided into two coaxial (Cinch and BNC 75 ohms) and one optical, a USB B receiving PCM and DSD signals, and a RJ45 port, because the M12 also acts as a high definition network player, which can exploit DSD signals. The controller offers numerous configuration options: for example, you can choose the phase response between two states: normal or minimum. After numerous tests, the first mentioned proved to be more musical than the second... The M12 is powered by three separate circuits, each equipped with its own toroidal transformer, rectification, decoupling and regulations. The two conversion cards are therefore completely independent, as are the common functions such as reception of external signals, their synchronization, utilities (display, etc.). Each channel has three cards: the power supply, placed in front, and two other modules, superimposed, for each channel. A mauve-colored plate shields them. Why this color, reminiscent of some

Apogee electronics modules? Just for "fun", says Brian Zolner (the "Bri" of Bricasti, interviewed by telephone).

TREATMENT ORIGINAL DIGITAL OF M12

The conversion relies on one Analog Devices AD1955 converter (DAC) per channel, followed by operational amplifiers of the same brand and output transistors. That said, Bricasti has developed a specific system to decode DSD in the best possible way: it is a specific assembly based on a high-speed analog switch (10 GHz) which directly converts the 1-bit digital stream into analog waveform... This extremely efficient process was named for the occasion NDS (equivalent to Native DSD). Bricasti's approach is so innovative that it would require an article in its own right!

THE M15

This fully analog stereo power amplifier has a double-mono layout from the output of the enormous toroidal transformer, followed by substantial rectifiers and a smoothing of no less than 240,000 μ F,





EXCEPTION

BRICASTI DESIGN M12 & M15

distributed into 16 elements, forming an enormous energy reserve. Each amplification channel has a fully symmetrical structure, totaling 16 bipolar power transistors and as many drivers, polarized in class AB. Announced for 125 W at 8 ohms, the M15 easily exceeds 170 W per channel, a value measured under the same conditions. He has energy to spare, as we will see in the chapter on listening. Its rise time barely exceeds a microsecond, which means it is fast, therefore quick to restore

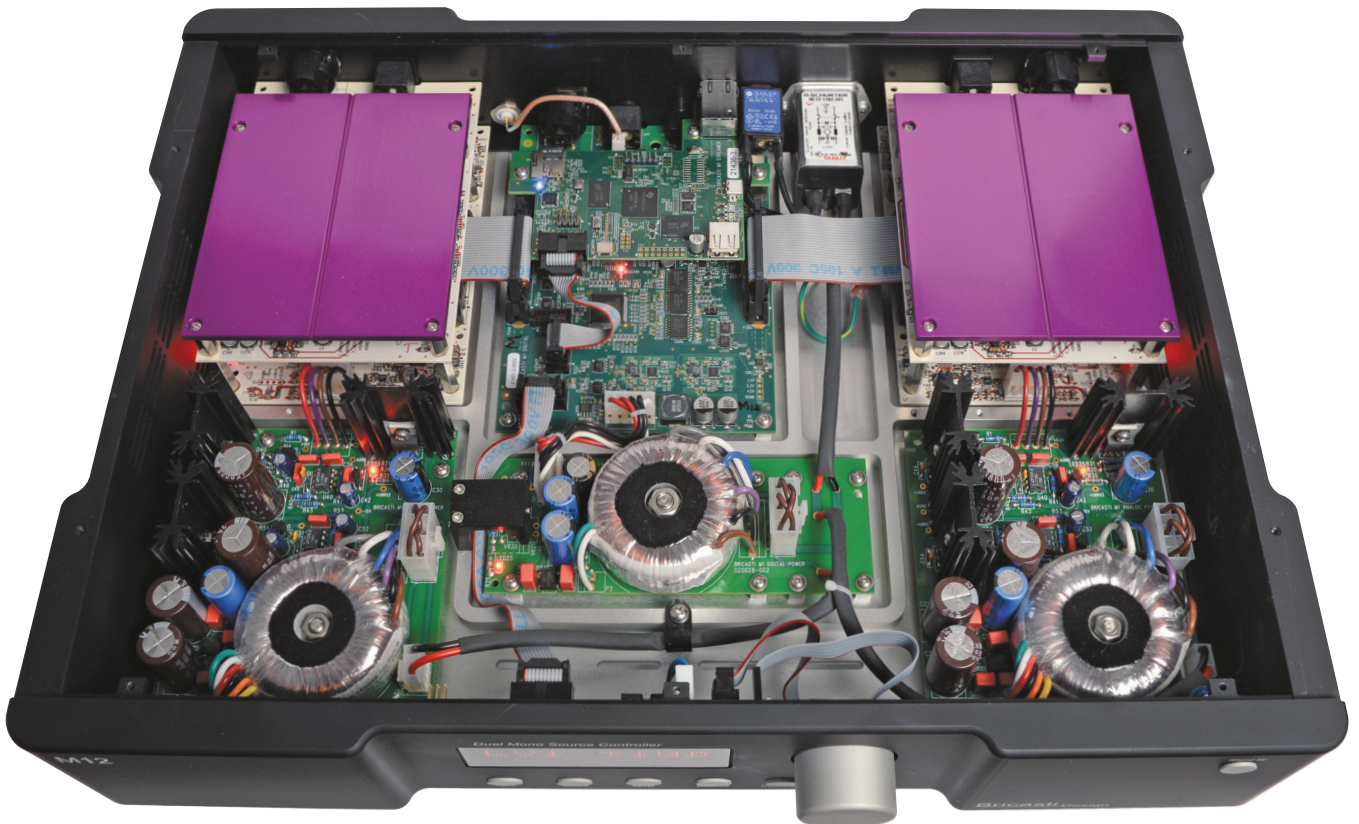
The M12 is arranged in dual-mono: each channel is sheltered under its purple plaque ("for fun" says Brian Zollner) and has of a triple food, including we see the transformers torics.

transient sounds. The electronic cards use very high quality components, including very tight tolerance Dale resistors and a large number of Wima polypropylene capacitors. The design of this amplifier is admirable in every way.

MANUFACTURING AND LISTEN

Construction : Housed in superb boxes made of high-quality aluminum profiles, these electronics are remarkably designed and their exemplary finish confirms their classy and beautiful design. M12 and M15 adopt the principle of dual mono, the audio cards having their own independent power supplies on the former, while on the latter this configuration is noticed on the separate secondary outputs of the enormous power supply transformer. Other strong points: very user-friendly ergonomics

vial, even intuitive, and the quality of the connectors.
Components: The manufacturer has not skimped on resources. No more fuses marking their presence with a color in the audio (yes, fuses sometimes "sing"), in favor of electronic fuses. The power supplies all operate in linear mode, prohibiting switching technology, a good point for reliability and silence. The components were listened to before making the qualitative choices, such as, to cite just one example, high precision and high musicality resistors, as well as polypropylene capacities.
Severe : When listening from PCM files via a USB connection, we had to choose between two phase configurations. The "Normal" position worked well better results in bass reproduction than the "Minimum", selected by default. The return to normal allowed this register to regain firmness, speed and definition.





tion, providing a beautiful base for this Bricasti set. When listening to DSD files, on which there is no filter adjustment, this observation of bass consistency was confirmed on all the files played.

Medium: This register is distinguished by its beautiful fluidity, its depth, its relief and its very high definition. The quality is such that we do not perceive the difference between analog line and digital inputs. The transcription of the voices is superb, and the smallest details that could have been overlooked on other electronics are preserved here without simplification, but with a respect for the harmonic content that is most satisfying when listening, in a striking naturalness.

Acute : Respect for the smallest details of each musical range is also brilliantly illustrated (no pun intended) in the high register. On this particular aspect of listening, this

The structure dual-mono begin at the exit of windings secondary of the enormous transformer ring of food. The purple bars completing the heatsinks side hide 16 transistors of power by channel and as many drivers, delivering more power than announced officially (see text).

register benefits from an excellent transcription, full of details and nuances of such musicality that the two Bricasti do not give the impression of exploiting digital audio signals, in particular for the M12 controller. The beauty of the timbres is expressed whatever the musical range played, in a very enviable coherence.

Dynamics: The evaluation of this parameter involves very careful listening to signals of very low amplitude, all the "small sounds" bringing together the *pianissimo*, but also the recreation of atmospheres, the ends of reverberations, all these small details which, correctly restored, contribute to the authenticity of the musical message, which we can, here, describe as analog. Logically, the definition is impeccable at the other end of the dynamic scale, because the higher the level of the sound message, the more bits there are to quantify it.

The Bricasti express themselves very naturally, respecting timbres, as we saw above, but also respecting dynamics.

Note attack: This sound reproduction parameter is the corollary of dynamics, on the aspect of instantaneous response. The M12 and M15 demonstrate exemplary liveliness, being neither slow nor aggressive. They behave in a very natural way, fast enough not to degrade transient sounds. Furthermore, the care taken with digital files, particularly for jitter rejection, does not caricature the lively and very detailed response of the two devices, both in PCM (the M12 being configured in normal phase) and in DSD, the rare authenticity. **Sound stage:** If we bring together all the qualities of these Bricasti, we see that they respect the entirety of the musical message and that

EXCEPTION

BRICASTI DESIGN M12 & M15

TECHNICAL SHEET M15

Price: 20,000 euros
 Dimensions:
 428 x 462 x 260 mm
 Weight: 41 kg
 Stereo analog inputs: XLR and RCA
 Output power:
 125 W (8 ohms), 250 W (4 ohms)
 Gain: 27 dB
 Frequency response: 10 Hz to 150 kHz at -0.5 dB
 Signal-to-noise ratio:
 > 85 dB (A) at full power
 Harmonic distortion rate + noise: < 0.005%
 (20 Hz – 20 kHz into 4 or 8 ohms)

low amplitude signals, without simplification, including in the conservation of the acoustic ambiances appearing on the tracks played. If we add to this their dual-mono design present on both the M12 controller and the M15 power amplifier, these electronics provide the demanding listener with a truly holographic soundstage, an exact replica of the elements that have been extracted from the audio files.

Transparency: That we exploit

analog inputs, or whether we read a digital audio file from our reference system, we do not perceive any coloration, the Bricasti demonstrating excellent integrity of the musical message in a very enviable authenticity. The M12 and M15 do not lack naturalness, whatever the content of the musical message, from the lightest to the most complex, with, for these two extremes, the permanent concern to free oneself from any difficulty. **Price quality** :The investment required for the acquisition of these two electronics is not trivial. But their development is also unusual, both in the topology of the circuits and in the choice of components that are as expensive as they are effective, which contribute to the excellent final listening results. As the popular saying goes, you get what you pay for.

VERDICT

These two Bricasti obviously have everything to please: a classy, sober and timeless design, a very accomplished electronic design of the controller configured in double mono, having analog and digital inputs, and a high-definition network player function, and a



Connection entry and stereo power block output, with the entries up, outputs power
 In the center (connectors universal), and utilities located at side of the base sector.

analog power, very musical and remarkably designed. These high-end links deserve the full attention of informed and demanding audiophiles.

Philip David

CONSTRUCTION	-----	-
COMPONENTS	-----	-
SEVERE	-----	-
MEDIUM	-----	-
ACUTE	-----	-
DYNAMIC	-----	-
NOTE ATTACK-	-----	-
SOUND SCENE	-----	-
TRANSPARENCY	-----	-
PRICE QUALITY	-----	-

LISTENING SYSTEM

Audio server
 Apple/Audirvana + V3
 PMC MB2 speakers
 Balanced line cables
 Absolve Créations
 USB cables
 Analysis Plus Purple Plus USB

