



Ideon Audio may be a newcomer in the French audiophile landscape, but they look to earn their seat among the best. The firm's founders, are Greek music lovers, and masters of digital technology. Their DAC Ayazi Mk2 and its matching USB 3R Master reclocker, together form an awesomely musical duo.

One of the reclocker's secrets may well be the SMSC USB2532i chip by Microchip Technology, which regenerates the USB signal and is mounted on a small green and golden pinned PCB.

The Ideon Andron cave in Greece (Crete) is famous for being the alleged birthplace of Zeus, father of the Gods; (in the case of Ideon) however, it is more likely the god of music, Apollo, who blessed the cradle of this brand's founders. George Ligerakis, the CEO, does not remember a single day in his life without music, despite a busy schedule as a mobile apps & technology entrepreneur, or even as an Internet pioneer back in the day. His primary obsession is to render the digital source as musical as possible.

In this endeavor he is seconded by Chief Engineer Vassilis Toúnas, who started his career in IT (Amiga) and mobile applications and constructed his first DAC in 1990. For years, Vassilis has focused on identifying any and all factors in a DAC which affect its sound. This endeavor led to the creation of the Absolute Suite, Ideon Audio's flagship creation. The Ayazi Mk2 is the first product in the lineup; its sonic qualities are increased tenfold by the addition of the USB 3R Master Time Black Star, which will likewise benefit any digital source connected via USB.

## IDEON AUDIO RECLOCKER 3R MASTER TIME BLACK STAR DAC AYAZI Mk2



# With Appolon's



### 3R MASTER TIME BLACK STAR

Many believe that audio signal digital transmission is a hassle-free process. For Ideon Audio, this is an illusion! The 3R MT's USB output – the one connecting to the DAC – is managed by a state-of-the-art USB controller, extremely low-noise, and a signal resynchronization

circuit utilizing ultra-low jitter oscillators. The computer link is realized via asynchronous buffers thereby achieving a high level of isolation from noise. A key, second, innovation, is the inclusion of a distinct integrated circuit eliminating USB signal transfer losses, which resolves interconnection (data transfer) problems created by cables and connectors. Additionally, the 3R circuit is totally isolated from noisy computer source elements through its own, ultra-low-noise and triple-stabilized linear power supply that replaces the standard USB sourced power.

We must keep in mind that in streaming data is transferred in real time in the form of an audio stream (synchronous transfer), but without the loss detection algorithm as in standard data transfers. Moreover, digital audio transmission also subject to synchronization jitter, so when information is lost by a transmission fault, it is never recovered – and this is audible. Hence the urgent need to resynchronize the

The construction is modular comprising of carefully selected components: Talema transformer, Linear Technology LT3081 regulator, latest generation programmable chip, femto clock, and Crystek oscillator. The heavy 1U steel chassis minimizes vibrations thereby protecting the sensitive circuit. No screen, as all the attention is focused on the internal circuit for optimum sonic results.

USB signal, which the 3R does by regenerating the source signal and considerably improving the transmission so that the accuracy of successive pulses does not distort the source signal. The 3R exposes details that would be lost without its presence in the chain, whether the signal is sourced from a PC or from a streamer.

### TECHNICAL SHEET

**Origin:** Greece  
**Price:** 2950 euros (3R MT reclocker)  
 2950 euros (DAC Ayazi)  
**Finish:** silver or black

### 3R Master Time

**Dimensions** (W x H x D): 290 x 80 x 170 mm  
**Application:** PC or digital source  
**USB:** type 2 high speed (480 MB/s)  
 No driver required  
**5V power:** switchable on/off  
 Triple linear power supply, ultra-low noise  
**Output power:** 600mA/5V super low noise

### DAC Ayazi Mk2

**Dimensions** (W x H x D): 290 x 80 x 170 mm  
**Digital inputs:** USB type 2 and above, S/PDIF  
**USB:** asynchronous type, dual clock, 32 bits  
**Sampling frequency:** 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz  
**S/PDIF:** 24 bit  
**Sampling frequency:** 44.1, 48, 96, 192 kHz  
**Output level:** 2 V RMS  
**Bandwidth:** 10 Hz to 25 kHz ( $\pm 0.5$  dB)  
**Signal-to-noise ratio:** > 112 dB  
**Output impedance:** 250 ohms (unbalanced)  
**THD:** <0.002%  
**Output level:** 2V



# blessing



## AYAZI MK2 DAC

The Ayazi Mk2 keeps its cards hidden underneath a no-frills external chassis which does, however, offers the advantage of being usefully compact.

The device follows Ideon's fundamental design principles which permeate the whole product range, regardless of level: war against electric noise; voltage and current stability under any load; and a fight against phase shifts.

It begins with a proprietary electrostatic protection circuit for the USB input, preventing extraneous noise contaminating the signal. Then, the jitter is kept at the lowest levels thanks to a double, ultra-precise asynchronous femto clock (offset measured in femto-seconds), and two Crystek CCHD-957 oscillators.

The linear power supply is powerful, well filtered and stabilized by high-end regulators, discreet dedicated lines supplying critical points. Filtering capacitors are all Elna Silmic (silk dielectric), among the best available. The DAC is thus cleared of all high frequency noise and other electromagnetic interference. The

converter used is an ESS Sabre ES9023-P but its algorithms are reworked by Ideon.

The DAC chip is preceded by an ultra-fast C-Media CM6631A receptor for USB, and a Wolfson WM8804 with re-clocking for S / PDIF.

The Ayazi Mk2 decodes PCM files up to 384 kHz in 32 bits, and up to 192 kHz on S / PDIF in 24 bits. It does not support native DSD, which will need to be converted to PCM on the fly by its software or the source (native DSD will be included in the next generation).

## LISTENING

**Timbre:** Might as well come out with it straight away – it's a surprise! The melodic content and the timbre quality delivered by Ideon Audio's duo is rare, even when compared to much more expensive products... to such an extent that we completely forget that we are listening to a digital source and simply enjoy the music – as it happens when listening to a great analogue setup. Thanks to the reclocker, the USB input is transformed, shedding every trace of artificiality and un-naturalness, in exchange for incomparable purity

The DAC's linear power supply is very substantial. It uses numerous Elna Silmic II high quality capacitors for audio; these are well known in audiophile circles for the quality of their dielectric (containing silk). The circuit is strikingly compact, but the momentous work that went into optimizing and finalizing the design have paid off.

at all frequencies, and particularly beautiful treble (Scott Ross' harpsichord is gorgeous). The various sonic textures are, both, soft and detailed, the high definition magically integrating into the musical flow which becomes supremely coherent. Our beloved Opera Gala piece from Delibes' Lakmé, Anna Netrebko recorded live in Baden-Baden, has hardly ever been restored with such humanity, such a beautiful timbre, such and incredible melodic flow: it is justly moving and very human, including the unbelievable realism of the applause in the end. This set is really very musical.

**Dynamics:** In and of itself, the DAC is extremely dynamic and lively – much like a thoroughbred stallion. Adding the 3R MT reclocker, however, seems to help channel this ardor, giving The Ayazi the added flexibility that is necessary overcome any and all hurdles in coping with every kind of music. The Ideon Audio ensemble affixes itself to the music and reproduces the micro modulations, the varying levels of intensity of any recording, effortlessly. It knows how to swing when it needs to – as it did in "C'est si bon" from the last

## IDEON AUDIO

Thomas Dutronc album "Frenchy". The voice is warm and full-bodied, drawing us into the music; the gypsy guitar it is reproduced precisely and realistically, sounding chiseled as it should. The rhythmic sway of the rhythm, the "Pump" (as it is called in manouche) is lively and playful, convincingly revealing the group's joy of playing music. Myriads of tones are reproduced, some strange or surprising, others very dynamic with sudden impact, always perfectly intelligibly as correct timing is strictly respected. Dynamic impact is clear and flawless, never aggressive or exaggerated. Everything seems simple and natural with Ideon Audio, where a beautiful material is delivered with none of the damaging digital cues we often encounter – such as over-definition or edgy sound, lacking in harmonic balance. It is also worth singling out the extremely good bass reproduction, well controlled and lacking in clumsy artifacts.

**Soundstage:** The better the recording and mastering, the more it highlights the Ayazi Mk2 + 3R Master Time combo performance level. On "Dancing with You" from the album The Voyage by Youn Sun Nah, the

voice is perfectly focused, rigorously structured and its tones qualities are beautifully reproduced, especially during the splendidly realistic whistling conclusion: the artist realistically seems to appear in front of you. The sonic signature of the accordion is also precise and three-dimensional, displaying first class transparency, the vibrating blades on the soundboard and their harmonics being sharp and easily discernible. There is a naturalness here that is very difficult to achieve in digital playback: actually believing in the musical event unfolding before us, with none of the usual limitations of digital reproduction technology.

Listening to the Ideon Audio combo brings to the limelight, the masterly and judicious design choices made by the Greek team during the plethora of listening sessions where the fine tuning took place.

**Quality / price ratio:** The DAC retails for 2950 euro and the 3R MT slightly higher at 2950 €, i.e. 5900 euro for the set. While this is not petty cash, we must appraise it in the light of the very high level of overall musical achievement this combo represents. Seen in this light, the

Top: the USB IN is the digital source input; the USB out connects to the DAC. In between these, a switch activates the 3R's own 5V power supply, cutting the USB cable voltage. Bottom: the DAC input receives the "improved" USB signal from 3R MT, but the device can also be used as standalone, connected directly to the source. A coaxial S / PDIF input is located next to the unbalanced analogue out. We appreciated the compactness of the combo.

combo becomes very competitive, and the combo holds its own among devices commanding significantly higher prices. At Ideon Audio, everything is designed in-house, using proprietary design concepts with the best components: what we get is money-no-object even for this entry level!

### VERDICT

The Ayazi Mk2 DAC and 3R Master Time combo is one of these real discoveries, the kind of which is rarely encountered; and to think that this is the Greek manufacturer's entry level product!

It is hard to speculate what secrets are hidden in their entrails, to allow them to attain this magnificent sonic result. Whatever the case the result is indisputable: the Ideon Audio Ayazi Mk2 + 3R TM are among the best digital products at their price range and well beyond. This duo is a marvel of technical mastery that connects us directly to the heart of the music.

It is a real current digital reproduction reference in quality / price ratio.

Bruno Castelluzzo

TIMBRE	■ ■ ■ ■ ■ ■ ■ ■
DYNAMICS	■ ■ ■ ■ ■ ■ ■ ■
SOUNDSTAGE	■ ■ ■ ■ ■ ■ ■ ■
QUALITY/PRICE	■ ■ ■ ■ ■ ■ ■ ■

### REFERENCE LISTENING SYSTEM

CD player: Icos Fado  
 Preamp: ATC SCA2  
 Amplifier: FM Acoustics F-30B  
 cost no object  
 Speakers: PMC MB2 Se  
 Cables: HP Lumina, Esprit line  
 Lumina, Nodal sector P1 Harmony  
 S/PDIF: JCT One  
 Socket block: Nodal Audio LMP2

