

# HIFICRITIC

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## AFFORDABLE M-C CARTRIDGES

Chris Bryant tries out four relatively inexpensive m-c cartridges

## NAIM'S LITTLE DAC

Naim's compact DAC-V1 might be aimed at computer users but it makes plenty of sense as a digital pre-amp too

## ULTIMATE FACT

Martin Colloms' unvarnished review of PMC's Fact.12 loudspeaker

## 40 YEARS YOUNG

Linn celebrates the 40<sup>th</sup> anniversary of its timeless Sondek with this special 'fully loaded' record player

## VALVE INTEGRATION

Audio Research has combined pre- and power amps in its new VSi75 integrated amplifier

## THE Rs HAVE IT

Apollo-R, Saturn-R and Elicit-R: Rega's latest budget electronics investigated

**REVIEWED THIS ISSUE:** NAIM DAC-V1, PMC FACT.12, JPLAY, JCAT, LINN 40<sup>TH</sup> ANNIVERSARY SONDEK LP12, AUDIO RESEARCH VSi75, AUDIO-TECHNICA AT-F7, GOLDRING LEGACY SERIES, GOLDRING ELITE, ORTOFON QUINTET RED, AUDIO MUSIC R-S, REGA APOLLO-R, REGA SATURN-R, REGA ELICIT-R, NAIM NAIT, MUSICAL FIDELITY V90-HPA, MUSICAL FIDELITY V90-LPS



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When reading Martin Colloms' piece on reviewing techniques (pp30-33) I started to realise just how personal such a process can be. I'm not criticising Martin's methodology, which has a rigour and thoroughness that I rather envy (up to a point anyway), but the fact that it varies considerably from my own approach does interest me, and I daresay readers too.

My own tactic when confronting a new component is less formal and certainly a lot more casual. Rather than undertaking specific listening sessions in a system that has been carefully set up in order to maximise its performance, I'll merely insert the item into my regular system and use it as and when circumstances dictate or the mood takes me.

Both approaches are probably equally valid, but they are also essentially antithetical. As I see it, MC is applying his conscious mind to focus on the performance of the component in question, whereas I try to let my subconscious make the important decisions about what I think about a product, only reverting to my conscious when actually writing up the review.

It has always been my personal maxim that the reviewer (of hi-fi equipment or anything else for that matter) is only as good as his/her last review. The fact that both MC and myself have survived for so long would seem to validate both approaches, which I actually find quite intriguing.

## Vinyl Longevity

According to Wikipedia's entry for 'LP Record', Columbia introduced the first examples way back in 1948. That's actually before I was born, and I've just started drawing my old age pension. In the modern world that's one heck of an achievement, and means that I'm able to play any discs manufactured in my lifetime.

Would that the same was likely to hold true for our computer systems, which seem to require updating on such a regular basis that I've simply lost my faith in their likely longevity. As far as I can tell the music files I've made will still replay, but they only go back a few years, and I was quite shocked to discover that my current *MacBook Pro* doesn't seem to like opening *Word* files created before 1996. Have I lost six year's work? More than likely (given my level of computer disinterest and illiteracy).

Then there was a nearby lightning strike a few months back. Such events and their consequences are very unpredictable I can accept, and I still can't explain why I still managed to send and receive e-mail and access the internet while the server system simply failed. To get it back I had to replace my modem and something that Apple calls an *AirPort Express*, but there was no problem with any of my other hi-fi components. (To be fair, a Sutton-based friend suffered much more seriously after a lightning strike, and even had to replace his *Troika* cartridge, so maybe I got off lightly.)

Computer audio in its various forms is certainly by far the most convenient way to access and play music today, but I seriously doubt whether it will still be possible to play the files we create today 20 (never mind 50) years hence.

*Paul Messenger*  
Editor

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*Martin Colloms' review of PMC's Fact.12 on page 10*

# Passive Excellence

THE AUDIO MUSIC R-S BALANCED TRANSFORMER LEVEL CONTROL CAN DELIVER EXCELLENT SOUND AT A REASONABLE PRICE IN THE RIGHT SYSTEM. MARTIN COLLOMS CHECKS IT OUT

## Review System

D'Agostino *Momentum Stereo*, Naim *NAP300*, Audio Research *VSi75*; Naim *Supernait 2*, Audio Research *Reference 5 SE*, Townshend *Allegri* and Audio Music *R-S* control units; Naim *UnitiServe* network server and S/PDIF source, Naim *NDS/555PS(DR)* Streamer-DAC digital source; Linn *LP12*/Naim *ARO/Koetsu Urushi Vermilion*, Naim *Superline/Supercap* vinyl source; Wilson Audio *Sophia 3*, PMC *fact.12*, Quad *ESL63*, BBCLS3/5a speakers; Finite Elemente *Pagode Reference* racks; Cardas *Golden Reference*, Transparent *XLmm2*, Naim *NACA5*, Franco Serblin *Yter* cables.



**A**mplifier maker Audio Music is the brainchild of Am Fang of Guangzhou, China. His company was originally founded in 1993, and his creations were marketed under the StereoKnight brand for many years, primarily in the USA. A falling out between partners led to a complete reorganisation and the introduction of similar but improved products under the Audio Music brand in 2013. UK distribution is *via* LW Audio, a relatively new distributor founded by Iain Borthwick who feels that Chinese sources can offer remarkably high standards of performance at unexpectedly reasonable prices.

This £1,950 *R-S* passive control unit is just one of a number of amplification components from the company, all superbly built, excellently finished,



and with a strong bias towards valve technology – AudioNote UK is a major source of inspiration. Construction consists of a very heavy anti-vibration core milled from solid acrylic, encased in heavy alloy cover plates. Inside is found top class Japanese Seiden 34-position attenuator switches with ball detents and double arm gold-plated wiping contacts, alongside no-expense-spared, high-nickel transformer-core attenuators. These are screened, mu-metal potted and connected up with single-strand Teflon-insulated point-to-point hard wiring, with no printed circuits or plug and socket connectors. In fact this unit is about as hard-wired as it gets.

With double mono construction and a +6dB gain switch (albeit with reduced performance), the unit has just a little gain at full level when used in single-ended mode. The signal paths which are balanced use four transformers. A double-mono 31-step control was found to have slightly unusual progression of volume steps, typically of 1-1.5dB resolution in single-ended mode. Maximum attenuation is a modest 44dB.

In some cases the maximum attenuation may not be sufficient to set a low enough whisper quiet sound level if using the combination of a loud source, a well modulated music track plus a sensitive power amplifier. An eye therefore needs to be kept on system matching for a given set of audio components, perhaps also taking into account the loudspeaker sensitivity.

MARTIN COLLOMS

Its earlier StereoKnight incarnation included a more complex version where the whole unit was relay operated and it came with a remote control handset. There was also a fully silver-wired option, but the current copper wire version is said to exceed the quality of the previous models.

While a single-ended input will appear at the balanced output XLRs, and a balanced input can also be output from the single-ended connection (all done without any switches in the signal path, aside from the Seiden input selector), there is a catch. The transformer windings and connections are not arranged such that it is universal (*ie* so that a single-ended input will appear as a balanced output). Instead only one phase of the balanced output will be exercised with a single-ended input.

Therefore in both theory and practice the best performance is available when used in fully balanced mode. However, I still liked it in single-ended mode, so high was its intrinsic quality.

### Sound Quality

Unquestionably, and from the very beginning it was clear that this was a very high quality level control. The sound has a tidy, capable character, free of any emphasis, almost perfectly neutral. It has a sense of calm, of inner peace, and an almost 'creamy' timbre.

Somewhat belying the perfectly flat frequency responses found during the lab tests, the tonal balance here was judged to be very slightly mellow, but with very good bass extension and definition. Image focus was quite exceptional and image depth was close to excellent.

Dynamics seemed very slightly curtailed, and while fine tuning the rear panel load matching control helped make some adjustment in this area, it was not found to address this aspect of performance completely. Conversely, adjusting this control did help optimise the sense of good rhythm and timing, which can fall off if the setting is too low. That said, while this control unit's performance is undoubtedly very good on rhythm, we felt that we could not extract the last possible degree of this particular quality with the *R-S*.

There was a moderate loss in 'converting' from single-ended to balanced operation, and likewise from balanced to single-ended mode because the internal design is fully balanced, and the single-ended option only makes use of one signal phase. (A single-ended input does not arrive as fully balanced at the output.) It sounds best in fully balanced mode scoring a reference level 135 marks, falling to a still very good 120 when working SE-to-SE.

### Lab Report

A pre-set user-adjustable trim potentiometer on the back panel allows for fine tuning for unusual source or load impedances, and has a small effect. You can see it working on pulse signals, where it partly trims the rise time and overshoot on fast pulses, the effect varying with the attenuation and loading chosen. Set too low, it can become over-damped.

The control has 31 increments, and measured in single-ended mode these were from 0.8dB steps at the top of the range, then increasing to 1.3dB by -10dB, then to 1.5dB at an indicated -15dB (here attenuating 18.5dB). I measured 2dB steps by -20dB, and then typically 1.25dB steps to a maximum of -44.3dB, which is not considered a very deep attenuation.

Channel balance was excellent, within 0.05dB over the control range. Also excellent was the frequency response: for a 600ohm source and with the level set at -6dB, the response was perfectly flat in the audio range, reading 10Hz to 85kHz at -0.5dB. (With a 20ohm source it was just -0.2dB at 10Hz.) High frequencies extended very well to 125kHz and showed a minor 2dB rise at 120kHz.

As expected, at -6dB (a rather small attenuation) the output impedance still somewhat reflects the source impedance, and it measured 150ohm from a 600ohm source and a correspondingly lower 7.5ohms from a 20ohm source. These passive controls get into their best working range several dB below full level. Thus a single-ended input power amplifier with a low sensitivity might not be suitable unless the planned sources have a higher than usual output level.

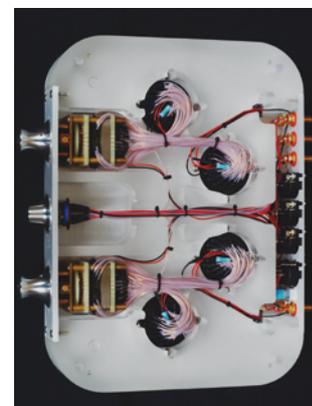
At useful lower volume settings the output impedance is very low: for example at -20dB, from a typical 50ohm source, the output from the control unit will be sourced at less than 1ohm. Lots of headroom is provided in the generous transformer cores: for example with a worst case 6dB of gain lift and with 22V output, the 1kHz distortion was less than 0.07%, and of low order harmonic order. At 2.5V output it was just 0.004%. There is a little more distortion at very low frequencies eg 0.22% at 20Hz (unity gain), then falling to 0.1% by 40Hz and 0.015% by 100Hz. At 20kHz it hit an all time distortion low of 0.0001%!

### Conclusions

This beautifully made and finished double mono transformer volume control is of excellent quality in fully balanced mode, and still sounds very good in single-ended mode. Although it's a little awkward to use, an Audio Excellence award is therefore entirely appropriate.

HIFICRITIC  
AUDIO EXCELLENCE

Type	transformer-coupled passive control unit
Dimensions (mm)	340Wx300Dx110H
Weight	9.8kg
Warranty	3 years parts and labour
Price	£1,950



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LW Audio  
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# Subjective Sounds

PAUL MESSENGER

## HIFICRITIC

### AUDIO AND MUSIC JOURNAL

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*Martin Colloms, Publisher*

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Those with long memories will recall that way back in the early 1970s, when both companies were young and small, Linn Products and Naim Audio forged a powerful complementary alliance, the former contributing record player and speakers either side of the latter's electronics. Both were very successful, but rapid growth led to a rather acrimonious split in the mid-1980s, as each developed components that competed with the other. Substantial differences in the sound character or flavour of systems demonstrated by the two companies became increasingly obvious. Owners of Linn/Naim systems such as yrs trly were faced with choosing between the two rival alternatives, and (for good or ill) I elected to stick with Naim's electronics.

However, listening to Linn's latest 40<sup>th</sup> Anniversary LP12 Sondek 'full monte' record player (pp16-17) took me right back to the time of the schism, reminding me very strongly of the classic characteristic Linn sound that I'd heard back then.

In the mid-1980s, both companies were setting standards for vinyl replay that were way ahead of the international norm, just as both continue to set class leading agendas to this day. The Naim component timbre was slightly warmer, richer and more romantic, whereas the Linn sound seemed to be cooler, brighter and drier.

The new Linn record player certainly provided loads of musical information from a wide selection of discs, while the adjectives and phrases that invariably came to mind were cool, calm and under tight control. I wondered to what extent that was down to the turntable, and how much was the responsibility of the electronics – specifically the *Urika* phono stage and/or its high frequency (switch-mode) power supply.

Much as I dislike (and try to avoid) stereotyping, I can't avoid making the observation that 'cool and clean if clinical' does seem to sum up some of the experiences that I hear when listening to electronics equipped with switch-mode (as distinct from linear) supplies, so I decided to try and pin this down.

Happily I had the necessary bits and pieces on hand to bypass the *Urika* phono stage and substitute a Naim *StageLine* (with a borrowed *SuperCap* supply). The changeover was no trivial task, as I discovered, but the end results amply confirmed my suspicion that much of the 'character' of the sound was being determined by the phono stage electronics. The exceptional vinyl replay was audible via both routes, but the contributions of the phono stage electronics had a powerful effect upon the overall timbre. The contrast in sonic character between Linn and Naim systems might well be down to personal preference, but the difference still clearly exists, and mixing the two is still arguably better avoided.

### Vertere Update

Some issues back I discussed the excellent cables that Roksan co-founder Touraj Moghaddam is designing and building in his Chiswick office suite under the new Vertere brand. I regularly use Pulse interconnects now, but I'd found his speaker cables good but not exceptional. However, he hadn't realised that the Naim *NAP500* power amp I normally use had a balanced output configuration rather than the normal single-ended arrangement.

He therefore brought down some cables that had been specifically designed for amplifiers with balanced outputs, and these simply blew me away. Sometimes one feels the need to check a system change by going back to what was being used previously; sometimes an improvement is sufficiently obvious that such a procedure is unnecessary. Just as I'd found when changing from PMC's *IB2is* to *IB2SEs* a few months back, so it was with these special '*Pulse X for balanced*' speaker cables. I just wish I could figure out what he'd done and why they worked so well...