

**SPECIAL  
FEATURE**

**WE CHOOSE THE  
62 BEST PRODUCTS  
OF 2017**

# stereophile

ONLINE AUTHORITY:  
[WWW.STEREOPHILE.COM](http://WWW.STEREOPHILE.COM)

**AFFORDABLE  
AUDIO EXCELLENCE**

# OUTLAW'S \$799 RR2160 RECEIVER

**GRADO'S EPOCH  
CARTRIDGE  
FROM THE  
LINEAGE SERIES**  
P.21



## IN REVIEW

**AWESOME  
ANALOG**

FROM GRADO,  
HEED, SWISSONOR

**COMPUTER  
AUDIO**

FROM DCS & NAD

**ULTIMATE  
HEADPHONES**

FROM AUDEZE  
& HIFIMAN

**PASS LABS &  
PEACHTREE  
AMPLIFIERS**



DECEMBER  
2017



**SOLO  
SOUNDS** ICONIC  
INSTRUMENTALS  
ON RECORD

KEN MICALLEF

# Heed Audio Quasar

## PHONO PREAMPLIFIER

**A**s a kid growing up in Milford, Michigan, my big brother always had the classiest clothes, latest records, and sharpest gear. He danced in Cuban-heeled leather boots, I climbed trees in lace-up Keds. He spun Rolling Stones vinyl on a fabric-wrapped Zenith portable with detachable speakers, I blasted the Beatles from a tinny transistor radio. Ten years my senior, big bro drove a Buick bomb (which, late one night, mysteriously caught fire in the garage) and had a girlfriend, Gail, whose plump cheeks and smart clothes embodied modern mid-century Midwestern appeal. I like to think that my brother and I have both aged gracefully. And lately, he's taken to high-end hi-fi with a passion.

First, I gave him a battered Thorens TD 166 Mk.II turntable and Cambridge Audio amplification. More recently, a pair of Snell J/Type II speakers pushed aside his old Tannoys. Then he sprang for a Music Hall MMF-7.3 turntable. My brother's endless questioning of every corner of my supposed audio expertise has made me rethink long-settled opinions.



**Those descriptors look mechanical and artificial on the page. The Quasar was anything but.**

Searching for information about the Quasar phono preamplifier and its Q-PSU power supply (\$1200 for both), made by the Hungarian company Heed Audio,

sent me down a path similar to my brother's quest for hi-fi. Luckily, the Quasar's designer, Zsolt Huszti, was able to answer a few of my questions.

### Design

The Quasar is a dual-mono phono stage with an outwardly identical standalone power supply, the Q-PSU. Each of the two oblong, sleek'n'slender steel cases has a stark black faceplate with a single blue LED and four rubber feet. Each unit has a screw-in receptacle for the 1m-long, four-pin DIN umbilical cable that links them. Like the Heed Elixir integrated amplifier, the Quasar is well built and feels very solid.

## SPECIFICATIONS

**Description** Solid-state moving-coil/moving-magnet phono preamplifier with standalone power supply. RIAA accuracy: 20Hz–20kHz,  $\pm 0.5$ dB. Frequency response: 3Hz–150kHz,  $\pm 3$ dB. Voltage gain: 50dB (MM), 62–78dB (MC). Moving-coil sensitivity: 100, 220, 600 $\mu$ V. Input impedance: 47k ohms (MM); 100/470/1000

ohms (MC). Output voltage: High Out, 775mV (0dBm)/22 ohms; Low Out, 220mV/100 ohms. Maximum output voltage: 7V (p-p). Output impedance: 50 ohms (High Out), 600 ohms (Low Out). Signal/noise (A-weighted): 80dB (MM), 66dB (MC). Channel separation: >90dB. Distortion (THD, 1kHz, 100mW): <0.08%. Power

consumption: <10W.

**Dimensions** Quasar & Q-PSU power supply (each): 3.75" (95mm) W by 3" (75mm) H by 8.7" (220mm) D. Weight (combined): 6.6 lbs (3kg).

**Finish** Black.

**Serial number of units reviewed**

Quasar: 213030542.

Q-PSU: 261030156.

**Price** \$1200. Approximate

number of dealers: 20.

Warranty: 3 years.

**Manufacturer** Heed Audio Kft., Reviczky Gyula u. 9-11, Budapest H-1181, Hungary. Tel: (36) 1-294-7401.

Web: heedaudio.com.

US distributor: Profundo, 2051 Gattis School Road, Suite 540/123, Round Rock, TX 78664.

Tel: (510) 375-8651.

Web: www.profundo.us.

Inside the Q-PSU is a single 117V/60V toroidal transformer. The mains transformer has two sets of output windings, each of which drives its own regulated power supply, starting with two independent rectifier sections, with two Jamicon 10,000 $\mu$ F electrolytic “smoothing” capacitors (wrote Zsolt). On the rear panel are an On/Off switch and an IEC inlet for the removable power cord.

Inside the Quasar itself is a single circuit board densely populated with: two German-made, polypropylene, 10 $\mu$ F Mundorf MCaps; six smaller 47,000 $\mu$ F capacitors; various resistors; and a series of minuscule, square jumpers for selecting the moving-coil (MC) input’s impedance (100, 220, 470 ohms) and sensitivity (100, 220, 600 $\mu$ V). Four more tiny jumpers enable the choice of moving-magnet (MM) or MC cartridge. It was easy to get lost when searching for these little black jumpers—my eyes scoured the green circuit board like Gulliver searching for Lilliputians.

“The Quasar has two basic circuits,” Huszti wrote via e-mail. “Both are fully discrete (all transistors, no ICs). The MM section provides RIAA compensation and gain. Via the MM/MC jumpers, the MC section is connected in front of the MM section as a pre-preamplification section. It provides gain and loading adjustment for MC cartridges, as well as a gain section to bring the voltage of the MC cartridge up to the level of an MM cartridge, for input into the MM section.”

On the Quasar’s rear panel are two pairs of RCA input jacks—one pair each for MM and MC cartridges—and a pair each of Low Out and High Out RCA jacks. There are also a small ground screw and a DIN receptacle for the cable from the power supply. Most of this is easy to access, even for the clumsy-fingered. In the Quasar’s manual is this odd passage: “‘Low Out’ is recommended for older amplifiers of the ’70s and ’80s. The ‘High Out’ is aimed at more modern amplifier designs.”

Huszti explained: “The manual is referring to the tendency of many modern integrations and line-stages to use less gain, which can lead to a sense of less dynamics, unless the input voltage reaches a certain threshold. . . . The ‘High Out’ section indeed has more gain and generally sounds more dynamic, but with a certain sacrifice of transparency and immediacy. Since the Quasar has a lot of headroom before being overdriven, I recommend using the highest gain position of the adjustable gain jumpers (100 $\mu$ V), using the ‘Low Out’ with MC cartridges that have an output below 0.5mV. Listening bears this out pretty quickly.” It most certainly did, but more about that later.

Incidentally, the Quasar’s manual suggests sensitivity and impedance settings for various MC cartridges, including the Dynavector Karat 17D2 (100 $\mu$ V, 100 ohms), Goldring Eroica and Excel (220 $\mu$ V, 100 ohms), Audio Note Io (100 $\mu$ V, 100 ohms), and Lyra Lydian (220 $\mu$ V, 470 ohms).

“The input sensitivity and loading jumpers are only in the circuit when using MC,” Bob Clarke explained via e-mail. “For MC loading, it’s best to follow the manufacturer’s recommendation; however, it is always good to experiment a little. For 0.5mV to about 0.8mV carts, I use the 220 $\mu$ V setting, then the 600 $\mu$ V for anything over that, until you reach MM output levels.”

#### Setup

Finding room for the oblong Heeds proved problematic. I didn’t have an extra shelf to devote to them in either system, so was forced to position them somewhat haphazardly. I ultimately sandwiched the Quasar between my Shindo Allegro preamplifier and the Heed Elixir, and perched the Q-PSU on a wooden stool.

I typically run my Denon DL-103 MC cartridge, via an Auditorium A23 step-up transformer (SUT), into the MM

## MEASUREMENTS

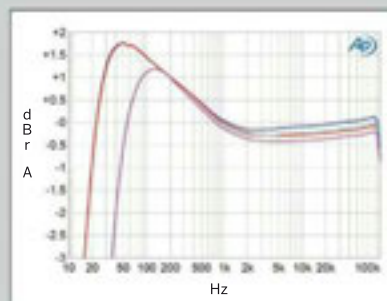
I measured the Heed Audio Quasar phono preamplifier using my Audio Precision SYS2722 system (see [www.ap.com](http://www.ap.com), and the January 2008 “As We See It” at [www.stereophile.com/content/measurements-maps-precision](http://www.stereophile.com/content/measurements-maps-precision)). As always with phono stages, I experimented with the grounding between the preamp and the Audio Precision system to get the lowest level of noise. I ended up floating the Audio Precision’s outputs from ground and connecting the Quasar’s grounding post to the analyzer ground.

The Quasar preserved absolute polarity with both moving-coil and moving-magnet settings and inputs, and from both its High and Low outputs. There are internal jumpers to set the gain for the MC input, meaning that the gain and, hence, signal/noise ratio and overload margin can be optimized for a specific MC phono cartridge. The MM input gain is set to a fixed value, but the choice of High and Low outputs

also means that the Quasar’s performance can be optimized for a specific cartridge. For MM cartridges, the Low outputs offered 33.4dB of gain, the High outputs 48.45dB, thus bracketing the usual 40dB figure. The MC input, set to 600 $\mu$ V sensitivity, offered 40.1dB gain at the Low outputs; set to 220 $\mu$ V, the gain was 48dB; and to 100 $\mu$ V, it was 54.9dB. As with the MM input, these figures were 15dB greater from the High outputs.

The input impedance for the MM input was appropriately high at 1kHz and 20kHz, at 61 and 48k ohms, but dropped precipitously, to 1000 ohms, at 20Hz. This, presumably, is why Ken Micallef found that using a step-up transformer with the Quasar’s MM input didn’t work. The Quasar’s manual states that the choices for input impedance for the MC input are 100, 220, 470, and 47k ohms, the last when the impedance jumpers are removed. However, printed on the circuit board

are “100 ohms,” “470 ohms,” and “1000 ohms,” and my measurements indicated that at 1kHz, the actual input impedances were close to the circuit-board legends: 115, 510, and 990 ohms. The values at 20kHz were similar, but as with the MM input, the input impedances at low frequencies were significantly lower. With the jumpers set to “1000 ohms,” for example, the



**Fig.1** Heed Quasar, Low output, response with RIAA correction into 100k ohms (left channel blue, right red) and 600 ohms (left cyan, right magenta) (1dB/vertical div.).

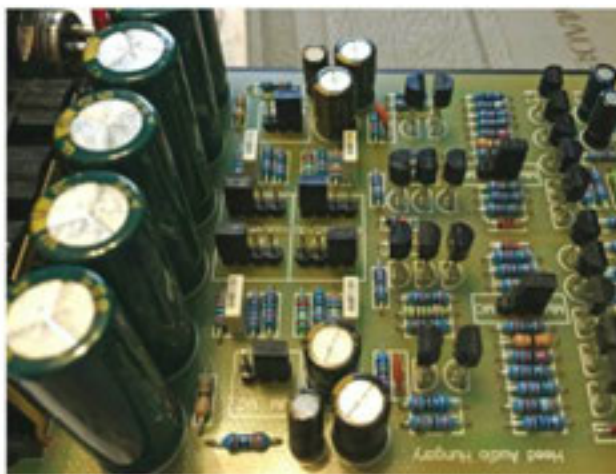


inputs of the Shindo Allegro. The Heed Quasar wasn't having any of that. No matter the internal arrangement or rearrangement of its jumpers or switching of interconnects from High to Low Outs, the sound was clear and spacious but lacking in bass fundamentals and weight. After e-mailing Bob Clarke and speaking with our own Art Dudley, I concluded that the culprit was impedance mismatch. I removed the Auditorium A23 SUT and plugged my Kuzma Stabi turntable and Stogi tonearm's interconnects straight into the Quasar's MC RCA jacks. Problem solved: musical peace and harmony restored. I did the same with my Music Hall MMF-73 turntable and Ortofon Bronze MM cartridge, plugged into the Quasar's MM RCAs.

I left the Quasar and Q-PSU powered on 24/7, as directed.

### Blue Notes

Lately I've had the pleasurable job of selling part of a friend's collection of 7000 Blue Note LPs—the “off-condition” copies, which can still command considerable sums from cash-flush bidders around the globe. Another friend sells our mutual friend's mint-condition vinyl. He got \$4539 for a copy of a deep-grooved pressing of Hank Mobley's eponymous album of 1957 (Blue Note BLP 1568), the LP's dead wax stamped “RVG” (for engineer Rudy Van Gelder) and



neering and lacquer-cutting skills is absolutely, spectacularly, holographically present in such 1500-series titles as *The Magnificent Thad Jones* (BLP 1527) and Curtis Fuller's *The Opener* (BLP 1567), as well as such as 4000-series (1957–1972) LPs as Freddie Hubbard's *Goin' Up* (BLP 4056) and Mobley's *The Turnaround* (BLP 4186). Magnificent dynamics, naturalness, presence, tonal saturation, lucidity—and heart-thrilling music—are what I hear when I spin these discs on my Kuzma or Music Hall turntables.

The Heed Quasar did a terrific job of resolving the music on these Blue Notes, the preamplifier's powerful presentation bringing focus and force to the recordings of Milt Jackson, Grachan Moncur, Kenny Dorham, and Tina Brooks. While the road to satisfaction was fraught with the twists and turns of various interconnects, much plugging and unplugging of

### measurements, continued

MC input impedance at 20Hz was 204 ohms rather than the 990 ohms I measured at 1kHz. I also got anomalous results when I removed the jumpers, which should give, according to the manual, an input impedance of 47k ohms. Instead, the impedance was very similar to what I measured with the jumpers set to “1000 ohms.”

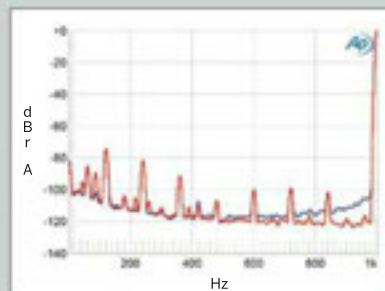
The output impedance from the Low outputs was a very low 9 ohms at high and middle frequencies, but increased to 508 ohms at the bottom of the audioband. I got some anomalous results when I examined the output impedance from the High outputs, including an apparently negative output impedance in some circumstances. But measured at 450mV output, the High output impedance was extraordinarily low, at 1.1 ohms at 20kHz and 0.3 ohm at 1kHz, but much higher at 20Hz: 729 ohms. As a result of the increased impedance at low frequencies, the Heed's low frequencies rolled off prematurely into a low, 600 ohm load (fig.1, cyan

and magenta traces) compared with a 100k ohm load (blue, red). Fig.1 reveals close channel matching, but also that the RIAA correction offers up to 1.75dB of boost in the bass before the usual infrasonic rolloff, which reaches -3dB at 16Hz. In this respect, the Quasar behaves similarly to the phono stage of the Heed Elixir integrated amplifier.<sup>1</sup>

Channel separation (not shown) was around 70dB R-L and 80dB L-R from 300Hz to 20kHz. The Heed's S/N ratio, measured with the input shorted to ground, depended on whether the MC or MM input was being used, the MC gain setting, and whether it was measured at the Low or High outputs. In the best case, with the MC sensitivity set to 600 $\mu$ V and examined at the Low outputs, the unweighted, wide-band ratio was an excellent 73.5dB ref. 1kHz at 500 $\mu$ V, improving to 87.5dB when A-weighted. Increasing the MC sensitivity reduced the ratio by around 3dB for each setting, while looking at the High outputs reduced the ratio

by around 10dB. The worst case was the MM input measured at the High output: 57.5dB wideband, unweighted, and 70.5dB A-weighted. Nevertheless, this is still good performance, and the spectrum of the Quasar's low-frequency noise floor, taken from the Low output at 1V output (fig.2), reveals that the main sources of noise are spurious at the full-wave-rectified

<sup>1</sup> See [www.stereophile.com/content/heed-audio-elixir-integrated-amplifier-measurements](http://www.stereophile.com/content/heed-audio-elixir-integrated-amplifier-measurements).



**Fig.2** Heed Quasar, Low output, MM input, spectrum of 1kHz sine wave, DC-1kHz, at 1V into 100k ohms (linear frequency scale).

equipment, and the not-infrequent curse or temper tantrum, the Quasar always kept its classy, consistent character.

### Listening

The Heed manual advises settings of  $100\mu\text{V}$  sensitivity and 100 ohms impedance for the Denon DL-103. After I'd briefly experimented with jumper placement, that advice proved spot-on. And from the first needle-drop of "Whiskey Train," from Procol Harum's magnificent *Home* (LP, A&M SP 4261), I knew the Heed Quasar was on to something good.

Righteousness! This blues-rock standard from 1970 sounded big and raunchy, with ultra-extended low-end notes from Chris Copping's electric bass guitar and BJ Wilson's bass drum. I also noticed the added reverb around Gary Brooker's voice. Meanwhile, Robin Trower's wailing, blues-sauce-spewing guitar never sounded better, all nasty string bends and glistening spectrum attacks. And though the Quasar is 100% solid-state, it sounded neither hard nor, worse, tube-cliché syrupy or soft—as can happen when manufacturers of solid-state gear try to design in added "warmth."

But would the Quasar exhibit similar extension and solid framing of treble and midrange notes when asked to translate my magical Blue Note LPs? And would it convey the soul of the music?

The Quasar surprised me. It repeatedly delivered some of the finest vinyl-produced playback experiences I've heard in my humble home. Whether retrieving the instrumental virtuosity, rich tone, and studio ambience of the Blue Note 1500 discs, the dazzling improvisations on Dave Holland's *TriPLICATE* (LP, ECM 1373), or the eerie brilliance of Sibelius's Symphony 4 in the recording by Herbert von Karajan and the Berlin Philharmonic (LP, Deutsche Grammophon 2535-359), the Quasar excelled. It reproduced music with fine transparency, note extension, and tone, and shone at

## ASSOCIATED EQUIPMENT

**Analog Sources** Kuzma Stabi S turntable & Stogi tonearm; Music Hall MMF-7.3 turntable; Denon DL-103 (MC), Goldring Elite (MC), Ortofon 2M Bronze (MM) cartridges.

**Digital Sources** Apple MacBook computer running Audirvana Plus; Halide DAC HD, PS Audio NuWave, Mytek HiFi Manhattan DACs; Western Digital T2 Mirror Drives (2), LG BD550 BD player (as transport).

**Preamplification** Auditorium 23 A23 moving-coil step-up transformer, Shindo Laboratory Allegro preamplifier.

**Power Amplifier** Shindo Laboratory Haut-Brion.

**Integrated Amplifiers** Heed Audio Elixir, Octave Audio V 80 SE.

**Loudspeakers** DeVore Fidelity Orangutan O/93, Elac B6, Quad S2.

**Headphones** Master & Dynamic MH40.

**Cables** Interconnect: AudioQuest Chicago & Water & Yukon, DiMarzio M-Path, Morrow Audio MA-1, Shindo Speaker; AudioQuest Castle Rock, Auditorium 23, Telurium Q Black. AC: manufacturers' own.

**Accessories** IsoTek IVO3 Aquarius power conditioner, Mapleshade Clearview Double Helix Mk.II power strip; Music Hall Aztec Blue & Mooo record mats; Spec AD-UP1 Analog Disc Sheet; Salamander five-tier rack; IKEA Aptitlig bamboo chopping boards (under turntable, preamplifier, power amplifier); Mapleshade maple platform (15" by 12" by 2") & mahogany blocks (2" by 2" by 0.5"); 3"-thick studio-treatment foam damping (ceiling, walls).

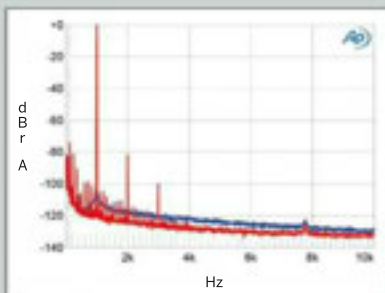
**Listening Room** 12' L by 10' W by 12' H, system set up along short wall; suspended wood floor, 6"-thick walls (plaster over 2x4), wood-beamed ceiling.—Ken Micallef

### measurements, continued

frequency of 120Hz and its harmonics. (All measurements were taken with the Quasar's Q-PSU power supply placed as far away from the signal enclosure as their umbilical cable allowed.)

These spurious can also be seen in fig.3, which shows the spectrum of the Quasar's Low output with the MM input fed 1kHz at a high enough level to give an output voltage of 1V. The second harmonic is the highest in level, at  $-80\text{dB}$  (0.01%), and while the third harmonic can be seen at  $-100\text{dB}$  (0.001%), it disappeared at lower input levels. Overload margins depended on the input, output, and gain setting. In the worst case (MC input, High output,  $100\mu\text{V}$  sensitivity), the margin was 10dB at 1kHz ref.  $500\mu\text{V}$ ; and in the best case (MC, High,  $600\mu\text{V}$ ), an extraordinarily high 38dB. The margin was lower at low frequencies: for the MM input at the High output it was 17.5dB at 20kHz, 27.5dB at 1kHz, but just 5dB at 20Hz.

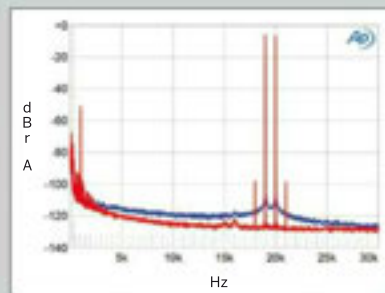
When I looked at how the Heed Quasar handled an equal mix of 19 and 20kHz tones, at a level fed to the MM input that resulted in 500mV at the Low output, the difference product at 1kHz lay at a moderately high  $-50\text{dB}$  (0.3%), though higher-order intermodulation products were respectably low in level (fig.4). I was puzzled, however, by what appeared to be noise-floor modulation in the left channel (blue trace).



**Fig.3** Heed Quasar, Low output, MM input, spectrum of 1kHz sine wave, DC-10kHz, at 1V into 100k ohms (linear frequency scale).

Heed Audio's Quasar offers users considerable flexibility in optimizing its gain, noise, and distortion performance. In general, they should use the lowest-possible gain to get the best sound from their cartridges. However, I was perturbed by the MM input's very low input impedance at low frequencies. I recommend the Quasar for use only with moving-coil cartridges.

—John Atkinson



**Fig.4** Heed Quasar, MM input, HF intermodulation spectrum, DC-30kHz, 19+20kHz at 500mV peak into 100k ohms (linear frequency scale).

micro- and macrodynamics.

Those descriptors look mechanical and artificial on the page. The Quasar was anything but, bringing out humanity and depth of feeling and timbral naturalness from every recording—it was a joyful communicator. From Dave Holland's deep-bowed double bass, and the warning notes heard in the opening of Stravinsky's *Firebird Suite*, in the recording with Robert Shaw leading the Atlanta Symphony Orchestra (LP, Telarc DG-10039), to the intimacy of RVG's hard-bop Blue Note sessions, the Quasar *almost* entirely removed itself from the music to let it speak. What unique sonic characteristics it did have were of warmth, a grain-free treble, and a certain delicacy, all of which complemented its whole-cloth sense of openness and coherency. The Quasar knows how to work the room, charming every listener and LP in earshot.

Rudy Van Gelder made his earliest Blue Note recordings at WOR Studios, in New York City, then in his parents' house in Hackensack, New Jersey, and finally in his own studio, in Englewood Cliffs. The Quasar let me easily hear the differences among albums recorded at the different venues. Lee Morgan's *Indeed!* (mono LP, BLP 1538) and Tina Brooks's *True Blue* (mono LP, 4041), both recorded in Hackensack, had much greater immediacy and clarity than Lou Donaldson's *Quartet/Quintet/Sextet* (mono LP, BLP 1537), recorded at WOR.

The Quasar revealed the minutiae of recordings very well, creating a superb sense of in-the-room transparency from small-group jazz recordings in which every improvisation, every minor turn of major improvisers, can be a revelation.

### Heed meets Heed

The phono stage of the Heed Elixir<sup>1</sup> is one of that integrated amplifier's glories, its punchy warmth and good tone a consistent delight. The Heed Quasar took it to another level. "Here at the Western World," from Steely Dan's *Greatest Hits* (LP, MCA-2 6008), became lighter and more refreshing, with a flowing musical line exposed in forceful drums and better delineation between standard electric guitar and steel guitar. And the Elixir's at times murkier mid-to low end was replaced by the Quasar's missile-like crystal clarity.

Francis Bebeby's *African Electronic Music 1975–1982* (LP, Born Bad 039) really took off, its exuberant meeting

of kalimba, freaky distorted Farfisa organ, rhythm-box playfulness, and layered voices spread deep, wide, and plentiful, with first-rate images and tons of air. The Quasar brought earthiness to this African electronic dance funk, with grander soul and resolution than the Elixir's own phono stage.

For most of my auditioning of the Quasar in both rigs, I used AudioQuest Yukon interconnects (\$324.75/1m pair, Amazon). They're more listenable than AQ's Water (\$524.75/1m pair, Amazon), with better tone than the bottom of AQ's line, the Chicago (\$68.75/1m pair, Amazon). Replacing the Yukons with Morrow Audio's MA-1 interconnects (\$49.95/1m pair) provided less air than the AQs and a recessed soundstage, but excellent snap and rhythmic acuity. Also in-house were a pair of M-Path interconnects from DiMarzio (\$150/1m pair, Todd the Vinyl Junkie), known for their pro-audio gear. The DiMarzios offered substantial images and a generous, unfussy tonality, plenty of jump and clout, and a liquid character that made instruments sound rich. The AudioQuest Yukons and DiMarzio M-Paths were more alike than not, the AQs offering less air and punch and smaller images, but a tad more resolution.

### Conclusions

I spent many a night with Heed Audio's Quasar and Q-PSU, engaged in all the revelry and vinyl music-making excitement they created with boundless enthusiasm and deep soul. Like Heed's Elixir, the Quasar is very well built, and its jacks easily withstood the endless tugs and twists this audio reviewer subjected them to. It exhibited pleasing tonality from LP to LP, resolving each disc with its own unique character and a broad soundstage with a grain-free treble, and plentiful mid-range and bass extension.

I'd long heard about this rather plain-looking, spartan phono stage—how it could transform the sounds of lesser systems, and challenge bigger comers with more hi-fi cred and glossier nameplates. The Heed Quasar is a mighty mite of musical authority, a twin-turbo phono stage that offers plenty of flexibility, a practically bombproof enclosure, and ample musical meat and value for the dollar. My brother already wants to buy one. Radically recommended! ■

<sup>1</sup> See [www.stereophile.com/content/heed-audio-elixir-integrated-amplifier](http://www.stereophile.com/content/heed-audio-elixir-integrated-amplifier).