

# Absolute Analog



## Acoustic Signature Maximus Neo Turntable, TA-1000 Tonearm, and MCX3 Cartridge

### A Remarkable Achievement

Dick Olsher

**L**ocated in the small town of Süßen, Germany, about a 45-minute drive from Stuttgart, Acoustic Signature (AS) has been at the forefront of turntable technology for the past 25 years. One of its keys to success is taking control of the entire manufacturing process. Robert Harley tells me that he was impressed during his factory visit by the fact that everything is machined in-house, down to the smallest tonearm parts. The development of the Neo Series reflects the culmination of its anti-vibration and diamond-coated bearing technologies. Our JV has previously reviewed the flagship Invictus and Invictus Jr. models and concluded as follows: “The word is thrown around too freely in this business, but to my ear the Invictus Jr. with the TA-9000 tonearm is Gunther Frohnhoefer’s masterpiece—certainly the best turntable/tonearm Acoustic Signature has made and certainly one of the best analog source components you can buy.” The Maximus is the entry-level turntable in the line—a two-speed, belt-drive design, that benefits from the technology

intrinsic to its much more expensive family members.

Each turntable in the Neo line is outfitted with an individualized version of the Dura Turn Diamond bearing, which is not only super-rigid for low noise, but also exceptionally rugged with a long service life. That explains the bearing’s 15-year warranty. The spindle is made of hardened stainless steel that is precision ground and then plasma-coated to yield a diamond-like surface. Both the chassis (aka plinth) and platter are machined from aluminum; the platter weighing in

at a substantial 12.8 pounds. A single motor is used, which is powered by an external switch-mode DC power supply that can accommodate mains voltages in the range of 100V to 260V. Although the motor pulley has two grooves, the intent is to use only a single belt on the lower groove. Start-up time is about 10 seconds before stable platter speed is achieved.

Isolation and leveling are provided via three gel-damped feet. Still, it would be a good idea to site the turntable on an isolation platform. I used an old Townshend

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## Specs & Pricing

### Maximus Neo turntable

**Drive system:** RPM-regulated belt drive with speed fine adjustment

**Speed range:** 33.3 and 45rpm

**Dimensions:** 415 x 120 x 315mm

**Tonearm compatibility:** 9 inches

**Weight:** 18 kg

**Price:**

### TA-1000 Neo tonearm

**Effective length:** 293.3 mm

**Mounting distance (from pivot to center of platter):** 222mm

**Total weight:** 439g

**Effective mass:** 9.3g

**Cartridge balance range:** 6 to 16g

**Mounting:** Rega & SME styles

**Connectors:** 5-pin to RCA/ground connector

**Price:**

### MCX3 mc cartridge

**Cartridge type:** Moving coil

**Stylus type:** Nude fine line

**Coil material:** 4N copper

**Voltage output:** 0.35mV (at 1kHz, 5cm/sec)

**Channel balance at 1kHz:** <1.2dB

**Channel separation at 1kHz:** > 24dB

**Compliance, dynamic, lateral:** 15m/mN

**Tracking force range:** 2.1 to 2.5g

**Recommended tracking force:** 2.3g

**Frequency response:** 20–20,000Hz (±1.5dB)

**DC resistance:** 5 ohms

**Recommended load:** 100 ohms

**Cartridge weight:** 12.6g

**Price:**

### AS-DISTRIBUTION GMBH

Hillenbrand Strasse 10

73079 Suessen

Germany

acoustic-signature.com

### RUTHERFORD AUDIO

(U.S. Distributor)

rutherfordaudio.com

### Associated Equipment

**Speakers:** Analysis Audio Omega, Fleetwood Sound Company DeVille, QUAD ESL-57

**Preamplifier:** AudioPrism Mantissa, Wavebourn Audio Research Labs Preamp+, Blue Velvet line preamp, Classé Audio CP-47.5

**Power amplifier:** SMC Audio DNA-1/GT-21 Ultra, 47 Laboratory 4717 Shigaraki, Canor Audio AI 1.10, Rogers British HiFi E20a/ii

**Cable & interconnects:** Acrotec, FMS Nexus-2 & Kimber KCAG interconnects; Acrotec 6N; Kimber KCAG & ChromaLeaf Canare 4S11 speaker cable

**Accessories:** Sound Application CF-X & TT-7 power line conditioners

Audio Seismic Sink to improve isolation from structural-borne vibrational energy. The Maximus avoids the pitfall of placing a resonant cavity directly under the platter. Designs with a boxy wooden plinth, such as the vintage Acoustic Research AR XA turntable, are susceptible to midrange colorations. It's a finding I discovered many years ago when I parked a turntable on top of a wooden box. To my amazement, this resulted in a substantial "boxy"-sounding midrange.

It should be noted that in reality this review encompasses a nearly complete AS analog front end, as the Maximus Neo was supplied with a 9" SME-style TA-1000 tonearm, a Grip Mk3 record clamp, and an MCX3 mc cartridge, manufactured by Ortofon to AS specs. Acoustic Signature's tonearm features a dual-layer carbon armtube and precision miniature ball bearings. It provides for adjustable VTA, azimuth, and anti-skating force. VTF is set via a brass counterweight. It is a perfect match in terms of weight for the MCX3 mc, a sophisticated cartridge featuring a hefty output of 0.35mV, high-purity copper coils, and a housing optimized for low resonance. The cartridge is outfitted with a nude-mounted "fine line" diamond stylus that is capable of retrieving plenty of detail from a record groove.

Setup was fairly easy, though it should be noted that "easy" is a relative term and depends on how much experience you have with this sort of thing. The entire process was aided by clear and detailed instructions. The tonearm installation was greatly simplified by the inclusion of an excellent alignment tool that allows for precise setting of the spindle-to-pivot distance, as well as adjust-

ment of cartridge overhang and offset angle. The only awkward part of the process involved VTA adjustment. This required loosening the VTA lock screw and some manual dexterity in sliding the tonearm up or down within the flange. I guess I've been spoiled by the Kuzma Stogi Ref 313VTA tonearm with its precision VTA adjustment capability. Setting of VTF requires a gauge, my current favorite being the Ortofon DS-1 digital scale. I started out at 2.1g VTF but ended up at 2.3g, which is the recommended setting for the MCX3.

During my initial listening sessions, a couple of problems surfaced—namely, a slightly wiry treble range coupled with diminished tonal color saturation. However, I was confident that these issues could be resolved by

tweaking the system. I ended up replacing the stock leather mat with a Boston Audio Mat-1 and, of course, adjusting the VTA and VTF to compensate for the increased thickness of the Mat-1. It helps to slip a flat washer on top the Mat's record label area to minimize the potential for dishing out the record. In combination with the Grip Mk3 clamp, the Mat-1 made for a dramatic increase in sound quality. Upper registers were now smooth; bass lines tightened up; and tonal colors were spot on. In hindsight, it is clear that the Boston Audio Mat-1 is much more effective in damping energy punched into the vinyl by the stylus than the stock mat. I can't imagine any turntable claiming state-of-the-art status without an effective vinyl hold-down system. Weights, clamps, and even vacuum

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suction are all attempts to intimately couple vinyl to a dissipative medium. In all these cases, it's critical that the mat's acoustic impedance match that of vinyl, and carbon (aka pure graphite) seems to hold an advantage in this regard.

I also spent some time with several phonostages to find an optimal match. I briefly tried the AS Tango Mk3, but it wasn't a good fit for my system. In the end, I defaulted to the Sound Tradition MC-10 step-up, followed by the all-tube Wright Sound WPP200C, which

is much sweeter sounding than a comparable solid-state device. It was at this point that I began to fully appreciate this system's potential. At no time was my attention distracted by the MCX3 mc. Unlike many mc cartridges that seem to etch the treble range, it was consistently detailed yet easy to listen to. Reproduction of violin overtones was pure and sufficiently sweet to satisfy even a tube aficionado such as me. Generally speaking, bright or otherwise hyped-up recordings were not exacerbated, which

was a blessing since not all recordings are reference quality. Soundstage transparency was superb. With my eyes closed, it was easy to get lost in a 3D gestalt of a concert hall acoustic. Rhythmic drive and transient timing were nicely fleshed out. Microdynamic nuances bloomed from a black background. Command of dynamic peaks was such that the music's intensity shone through with no apparent compression.

To assess performance using human voice, I brought out my QUAD ESLs, which were extensively upgraded by Electrostatic Solutions many years ago. I don't know of any other speaker capable of reproducing human voice more naturally. Of course, this is also a function of the matching power amplifier. I had previously used a refurbished Futterman H-3 OTL as a reference, but I recently discovered that the 47 Laboratory 4717 Shigaraki integrated amplifier sounds magical in this context. This setup produced a few wow moments. For example, the well-known 1987 recording of *Misa Criolla* (Creole Mass) by Ariel Ramirez (Philips 420955-1) never sounded any better. The resolution of individual voices in the chorus was superb, as was the corpus and glowing timbre of soloist José Carreras.

Just how good is this AS analog playback system? I have been using it regularly for several weeks by now, and I'm in no rush to switch back to my Kuzma Reference turntable. A turntable is all about spinning vinyl with speed accuracy and minimal bearing chatter. The Maximus Neo does an excellent job of that. (In German engineering I trust.) Configured as a system to include the Boston Audio Mat and the Grip Mk3 record clamp, the Maximus Neo sounds far superior to any entry-level system I've auditioned over the years. That's clearly a testament to the synergy of the Maximus Neo system components. In fact, I'm convinced that it can hold its own in the company of far more expensive systems. My guesstimate is that it offers about 70% of the sound quality of the most elite systems. And that's high praise, indeed. So, what exactly would you be missing relative to a much more expensive system? In audiophile terms, mainly enhanced image focus, smoother harmonic textures, and increased dynamic conviction. In absolute terms, a closer approach to the real thing. Still, this is a remarkable achievement at its asking price. **tas**