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PERSONAL AUDIO

What began as a single, brilliant, high-end portable music player—one that created the category virtually singlehandedly—has morphed into a broad line of offerings. Astell&Kern wants to make its products accessible to a wide range of consumers, from high-end neophytes to grizzled, uncompromising audiophiles. Recently, the company expanded its already-broad model range in both directions.

At the entry level is the new AK Jr., which brings A&K just barely into the under-\$500 range. On the other end of the spectrum, the AK380 takes its place as the brand's new flagship. The previous top dog, the AK240, remains in the lineup. The latter player raised eyebrows with its then unheard-of \$2499 price tag. But Astell&Kern wasn't cowed and/or the AK240 met with strong market success, because the new AK380 goes for a whopping \$3499. Pony up \$3999 if you'd like yours in copper.

That's a whole lot of money for a portable player, but the more deeply you look at the AK380, the more its price seems justified. I'll get to that shortly, but first let's have a look

at what the AK240 and AK380 have in common. Both have large touchscreens (the AK380's is slightly larger) encased in aircraft-grade Duralumin bodies clad in custom-fitted leather. Both are oversized compared to, say, an iPod Nano or a Sony Walkman, but both feel substantial and swanky in the hand. Inputs and outputs are identical: There are ports for micro-USB, standard headphones, and balanced headphones. Feature-wise, both units feature dual DACs for better channel separation, native DSD with no interim PCM conversion, MQS support, streaming over WiFi or (heaven forbid!) Bluetooth, a 20-band parametric equalizer, and 256GB of internal memory that's expandable by 128GB via a microSD chip.

Clearly the AK240 was already a richly featured device. Seems as if there wouldn't be much to add, doesn't it? But the AK380 goes the AK240 quite a bit further. Most immediately obvious is the new touchscreen. Aside from a bump in size from 3.31 to 4 inches, the new player trades an AMOLED display for WVGA. The difference is instantly apparent. The new flagship's screen is brighter, sharper, and more colorful. Meanwhile, in terms of



Astell&Kern AK380 Portable Music Player

The Summit Just Got Higher

Alan Taffel

parametric eq are offloaded to a new dedicated DSP chip.

If you're getting the impression the AK380 is a very serious piece of equipment, you're right. And bristling as it does with so much advanced technology, it would seem a shame to use the AK380 solely to play music through a set of cans. Astell&Kern certainly thinks so. Which brings us to what I consider one of the AK380's most significant features: extensibility. Unlike nearly all others of its genre, the AK380 is not necessarily a standalone device. Rather, it can serve as the center of an entire ecosystem. If you need to drive low-sensitivity headphones, slap a module called AMP (\$699) right onto the back of the unit. AMP has its own battery pack, so it doesn't shorten playing time, and seamlessly integrates with the AK380 both physically and functionally. No interconnect necessary, no dueling volume controls. Astell&Kern also offers the AK CD Ripper (\$349). Although it's a physically separate unit, the AK CD Ripper, like AMP, is plug-and-play.

Now comes my favorite of these functionality extenders: the AK Cradle (\$349). When nestled into the aluminum-bodied

connectivity, the AK380 adds aptX Bluetooth. Trust me, if you're going to use Bluetooth, aptX is the way to go.

But the most significant changes for the AK380 are deep inside. First and foremost is the switch from dual Cirrus Logic CS4398 chips to dual AKM AK4490's. Aside from any sonic benefits, which are evaluated below, the shift enables the AK380 to support resolutions all the way up to 384/32 (the AK240 topped out at 192/24) and DSD256 (versus the AK240's DSD128). Most users won't need the AK380's extra resolution now, but it's if and when broadly available source material evolves to that level.

The AK380 goes yet another step further by pairing the new chipset with a high-precision VCXO (Voltage-Controlled Crystal Oscillator) clock. The clock module has a jitter rating of just 200 femtoseconds (a femtosecond is a quadrillionth of a second, or 10^{-15}), which in turn reduces the AK380's overall jitter to just 30 picoseconds—roughly half that of the AK240. And just to make sure the new chip/clock combo can devote all its resources to sonics, peripheral functions like the

PERSONAL AUDIO - Astell&Kern AK380 Portable Music Player

Cradle, the AK380 suddenly becomes not a portable player but a high-end streamer/DAC front end for a high-end audio system. You know, the kind that is installed in a listening room and doesn't move. What the Cradle adds that self-contained portable players necessarily lack is a set of high-grade, balanced XLR outputs. The Cradle also powers the AK380, which means that if you run it in conjunction with the AK Connect app for your smartphone or tablet, you can leave the cradled player untouched and use it just as you would any other digital front end. The CD Ripper can also be directly linked to the Cradle, completing the scheme.

Needless to say, all the attention A&K has lavished on the AK380's build-quality, features, technology, parts, and extended functionality would be pretty much moot, especially at its elevated price, if the unit didn't sound the part. Admittedly, I was skeptical on this point. I thought the original AK100 was a landmark in both design and sonics. In my review of that unit, I compared it with a fifth-gen iPod Classic—the best of its breed—and there was simply no contest. I didn't see a lot of room for improvement—until I heard the AK120. The subsequent Mark II versions of these models sounded even better, much to my surprise. Then came the AK240, and I finally felt I'd reached the summit in personal player sound. Honestly, I had zero complaints.

But the AK380 has once again bushwhacked me. It stretches the boundaries of what's sonically possible from a personal player in a way I never imagined possible. For instance, with the AK380, instruments exist in a field of air, as they do on a well dialed-in dedicated system, and in real life. These air pillows are missing on the AK240. But the air around instruments is merely one example of the AK380's greater transparency. The ability to draw more detail from the bits also manifests itself as richer timbre—for instance on brass and string bass—that makes instruments more lifelike. Previously hidden details, such as the decay of reverb, become easy to hear.

The AK380 is also “faster”—that is, notes start and stop more quickly—than the AK240. This gives it the ability to trace rhythms more accurately. Consequently, beats are tighter and more infectious through the new flagship. This is true not only with rock but with material like chamber music, which relies on less overt sources of rhythm. Through the AK380, you can definitely tap your feet to a chamber quartet or octet (try the Dvorak *Serenades* on Praga), and you can more easily pick up on rhythmic variations such as syncopation.

With each succeeding generation of AK players, Astell&Kern has managed to lower the noise floor. This has the obvious benefit of a more relaxed listening experience, but there is another, equally important advantage. With a lower noise floor, instruments not only stand out from the background, they stand out more clearly *from each other*. Even compared to the already quiet AK240, the AK380 is better at allowing each instrument to be heard more distinctly. Once more, it's not necessary to enlist complex music to hear the difference. Even on something as uncomplicated as a jazz trio, the AK380 better conveys what each player is up to, as well as the sound of his specific instrument.

The final distinction wrought by the AK380 is superior spatiality. The new flagship exhibits tight (but never edgy)

SPECS & PRICING

Display: Four-inch WVGA touchscreen

Supported audio formats: WAV, FLAC, WMA, MP3, OGG, APE, AAC, ALAC, AIFF, DFF, DSF
Maximum input rate: 384/32, DSD256

Battery: 3400mAh 3.7V Li-Polymer

Outputs: Phones (3.5mm), optical (3.5mm), balanced (2.5mm, 4-pole)

Memory capacity: 256GB plus 128GB microSD

Wireless: 802.11 b/g/n (2.4GHz), Bluetooth V4.0 (A2DP, AVRCP, aptX)

Supported OS: Windows XP, 7, 8, and 10; MAC OSX 10.7 and up
Dimensions: 3.14" x 4.42" x .70"

Weight: 8.11 oz.

Price: \$3499

ASTELL&KERN

39 Peters Canyon Rd
Irvine, CA 92606
astellinkern.com

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imaging and an extremely wide soundstage. I suspect this is due to better channel separation. Whatever the cause, material such as the HDtracks 192/24 version of Led Zeppelin's “Whole Lotta Love” becomes mind-expanding.

Since the AK380 can also serve as a music streamer (in either portable or cradled mode), I wanted to test the quality of its sound in that regard. It's been my unfortunate experience that many otherwise excellent digital source components fall down when asked to stream. This is especially true for wireless streaming, which is the only type the AK380 supports. One encouraging sign, though, was that the AK380 supports DLNA (Digital Living Network Alliance), a rigorous protocol for exchanging media files between servers (such as a NAS drive) and clients (in this case the AK380).

So I proceeded to compare the sound of the AK380 when streaming over WiFi versus playing directly from its internal memory. What I found was that the difference is nearly impossible to hear—a welcome and astonishing result. If I listen *hard*, I can detect a slight veiling of voices when in streaming mode. Norah Jones, who is always recorded in such a way that her voice comes across intimately, sounds subtly less “there” when streaming. But that's about it. As it turns out, the AK380 sounds great regardless of how it's accessing music.

With the AK380, Astell&Kern has created a flagship that transcends the genre of audiophile-quality portable players. Never, to my knowledge, has such a device incorporated features and parts comparable to those found in the best high-end components. And never, in my experience, has a portable device delivered sound so uncannily similar to that of the best high-end systems. But the AK380 goes beyond delivering superb sound. Thanks to a set of clever peripherals, this player can serve as the digital front end in any audio system. Combine all that with generous storage, a large, bright display and next-generation resolution, and the AK380 becomes the portable player to beat. **tas**

