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**H**ow would you call a situation where two good ideas merge to form a very good one? Idea fusion? Mega idea? Actually it doesn't matter how it's called. In any case the AK120 by Astell&Kern is a great example of such a successful fusion. For this small player combines two major hifi trends of our time in a self-evident way: Music listening along the way, anywhere and anytime. Plus the growing demand and desire for audio files that have been stored loss-free using sampling frequencies and bit depths far beyond the old CD standard. Two trends both of which were able to win enthusiastic fans in the past, but stupidly could not get together so far.

All the more remarkable that just iriver, the Korean MP3 player giants, finally recognised the logical connection between mobile listening enjoyment and audiophile ambitions. Astell&Kern is the associated brandname which only the consistent hi-res players are allowed to bear. The AK120 from the rather new model series is the perfect fusion of a mobile player and a high-end device. Its cool, brushed aluminium skin and the ample 140 grammes live weight already

# Nuclear Fusion

When two atomic nuclei combine, energy is released. In the AK120 by Astell&Kern mobility and audiophile lust unite – releasing new sonic experiences.

set it apart from the usual plastic-coated pocket players. And when coming along in its exquisite tailor-made leather suit from the Tuscany-based noble manufacture Buttero, nobody can easily rank it among the ordinary entertainment toys.

The AK120 is comfortably controlled via a touchscreen that is reminiscent of the original iPod both in size and shape, mandatory side control buttons plus a little volume wheel with a very fine 150-step level regulation. The display may not be on par with the latest smartphone generation as to resolution and contrast sharpness, yet offers everything a music lover expects from his or her player: A clear, neat main menu, an automatic sorting function for the music collection

by quality ("Mastering Quality Sound" lists everything in the media library from 96 kilohertz and 24 bit) and for each played track the corresponding information on data volume, resolutions and format. For as a thoroughbred musician the AK120 won't deny itself any of the well-known and popular audio containers – playing back anything from data reduced MP3 and AAC to lossless FLAC and ALAC up to uncompressed WAV and AIFF formats, thereby using maximum resolutions of 192 kilohertz and 24 bit. The AK120 can even handle and process DSD files with a 2.8 megahertz sampling rate (DSD64) just as easily as it creates seamless transitions between coherent album tracks. Just this feature may be immediately obvious to every

classics or concept album fan, but requires a certain degree of basic audiophile knowledge on the manufacturer side – and the necessary commitment with the programming work.

The AK120 also requires a little commitment from its user: Who also wants to admire the matching cover art picture on the display for the song being played, should embed them directly in JPEG format into the individual FLAC files. Freeware like mp3tag (for PC) can serve well here. With Macs, however, a little caution is needed: Some ripping programmes (such as "Max") save cover pictures as PNG files in the meta data and automatically convert JPGs into that format as well. But neither the AK120 nor most any other players and media servers can read it.

However, the Astell&Kern player can do a lot more. Its two Wolfson DACs do not only handle data in the 64 GB on-board RAM (expandable with two 64 GB SD cards to an impressive overall capacity of 192 GB). Via USB and optical TOSlink input the player can also double as an external D/A converter to process audio data from a computer or CD pla-



From all sides the AK120 shows a serious and noble quality of workmanship. On top the combined line-/phones output, left of it the optical in/output. Below the mini USB interface and a locking SD card slot.

yer. In addition to headphones it can also supply amplifiers and even active loudspeakers with music – the volume adjustable line output delivers a maximum of 1.6 volts which is easily sufficient for most monitors.

Even at low-impedance headphone loads the output still delivers 1.2 volts, thus leaving the choice of headphones almost completely free and unrestricted, including – but not limited to – demanding models like the Denon AH-D7100 or the Beyerdynamic T90. Both sounded amazing. Good thing, because due to the player's sonorous and finely resolved sound one would give away quite a lot with a headphone of inferior quality. Sceptics might attribute the fact that the Trondheimsolistene artists from Norway take the listener on a mystery tour of microdynamics through the subtle modulation jumps of a violin string, partly to the sumptuous 192/24 recording by Morten Lindberg. But when Alexei Volodin makes Beethoven's Piano Sonata No 30, encoded as AAC file with an almost heretical 264 kilobit/s, come alive so emotionally on his grand piano, when

tempo and accents come with pinpoint precision, this may no longer be due to the sheer data volume. The instrument became not just vaguely perceptible in its size, but every touch, every pedal movement was easily graspable. The AK120 is neither afraid of driving rock rhythms and less perfect recordings: Even with the – under the aspect of recording technology – marginal album "In This Light And On This Evening" by the Editors, the AK120 does by no means conceal the limitation of the source material, yet at the same time it manages to fill the inherent genius of the music with body, mind and soul.

Sheer curiosity drives me to a final comparison with the iPod – and just as quickly away from it again. The Apple player sounds just too thin, too feeble and has too little vividness to meet anywhere with the agility and power of the AK120. In this league the Astell&Kern hasn't been playing in a long time – its domain is pure high-end, also on the road. And that's been the best fusion in a long while.



### Demo CD

The DeSoto Caucus / Offramp Rodeo

The Americana fan recognises the Nordic gentlemen as Howe Gelb's backing band. But with their bone-dry, melodic country-folk blues in excellent recording quality they can also convince as stand-alone combo.



### The Author

Christine Tantschinez

AUDIO's vice chief editor started her mobile player career with her big brother's Sony DD walkman – and as yet she takes every opportunity to dive into very private music realms using good headphones and audiophile players.

1 The main menu is well-structured and offers all functions at a glance. Top right a cog-wheel symbol points to the settings.

2 For every track the AK120 provides information, adding it to existing or new playlists. An equalizer may also be activated.

3 Linked to a PC via USB cable, the player instantly offers to select between DAC or hard-disk operation.

4 If the cover art pictures are embedded into the respective songs as jpeg files, they are available as decorative eyecatchers.



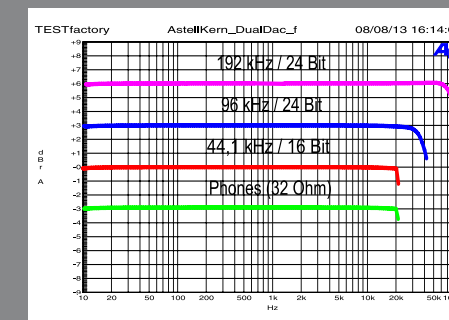
## Astell&Kern AK120

List price: 1300 EUR  
Warranty: 2 years  
Weight: 143 g  
Finish: black

Distribution:  
Robert Ross  
Audiophile Produkte  
Phone: +49 8466-90 50 30

Internet:  
[www.robertross.de](http://www.robertross.de)

## Frequency Response

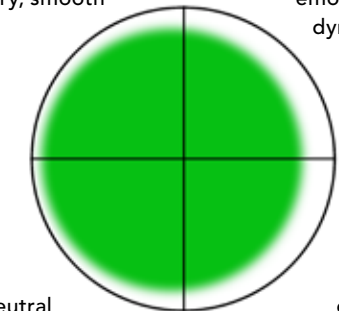


Wide, dead straight frequency response (minimal dropoff -2dB @ 100 kHz). With 1.6 volts at the regulated line output and 1.2 volts into low-Z loads (32 ohms) the player can easily drive active loudspeakers and bigger headphones. The measured S/N ratios are excellent: 114dB at the line out, 113dB via USB.

## AUDIOphile Character

stressless  
airy, smooth

infectious  
emotional  
dynamic



## AUDIOphile Potential



## AUDIOphile Advice

No portable player on the market sounds better. If you appreciate top sound also on the road, the AK120 cannot be avoided.



## A new Nucleus ●

Astell&Kern sounds like European aristocracy, yet Asian high-tech provides the basis. However, with manual work and a flair for design one is by no means inferior to Europe.

**A**stell & who? If that name hasn't appeared on your hifi map so far, you needn't doubt about your expertise. The brand name comes from a clever agency and was specially created for the portable hi-res players. Yet behind that alias is nobody else but iriver, precisely the Korean company which established a really good reputation among music lovers and reviewers in the 2000s with their excellent MP3 players. Until the Apple iPod and its siblings hit the scene and turned the market upside down: No longer did the musical quality count but

the sense of life. Instead of sulking the Korean makers were competently concentrating on other markets, developing e.g. successful e-readers or versatile multimedia players. And with the Astell&Kern AK100 they presented all of a sudden the first thoroughbred version of a mobile RAM player for the audiophile music listener in late 2012 (reviewed in AUDIO 1/2013).

What you might not have expected: the aluminium housings of the Astell&Kern players roll by no means off the line in the typical Asian style. Already during

our conversation at the High End trade show, company head Jae Woo Lee almost felt embarrassed, because the ongoing player production can hardly meet the increasing demand. For the external shells are produced in one seamless cast and then expertly measured, sanded and brushed by hand before the assembled devices are put through their paces. Neither do the people from the software department stand idle or rest on their previous laurels. Updates with new functions or little bug fixes are busily uploaded onto the iriver website. And from there fast and safely onto the player simply using a computer and a USB cable. The player instantly recognises a new software update automatically, the user needn't do anything else.

The Astell&Kern portfolio is now complemented by a docking station, made from the same aluminium and crafted in the same quality. On the rear it even replicates the dainty wave design of the volume control. And it's practical, too: It remains on the desk as power source and PC link, the player can be plugged in and off at your leisure.



The docking station to match the player's look is optionally available.



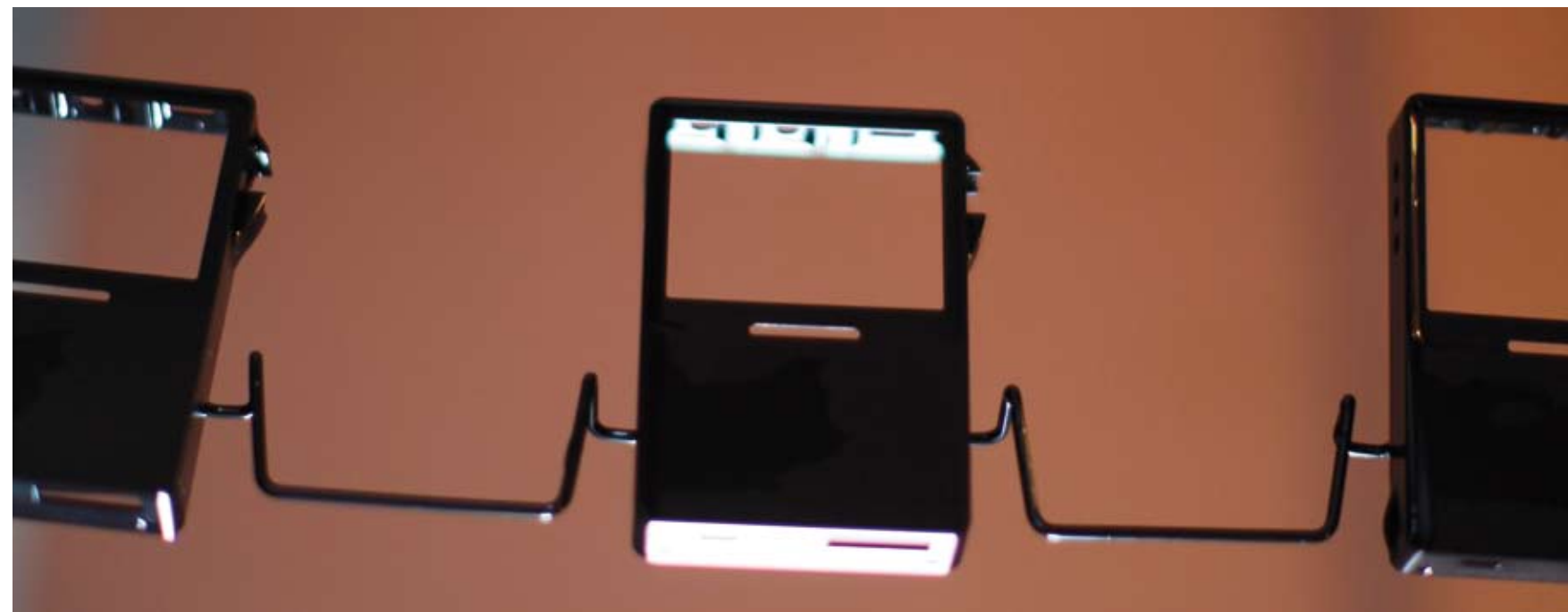
Included in the AK120 package: the elegant leather bag by Buttero.



The Body of the AK-120 is machined from a solid aluminium billet on a CNC lathe. Though this process ensures absolute precision, each raw body is then painstakingly checked. At 13 precisely defined points, measurements are taken with an allowed tolerance of only 1/100 millimeter.



The beautiful surface finish is achieved by meticulously hand-brushing the raw aluminium housings.



After brushing, the aluminium body goes into an electro-chemical process that gives it a scratch-proof anodised surface layer and its deep-black colour.