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ISSN 1465-5950



REPRODUCING THE RECORDED ARTS DECEMBER 2016 • 142
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EXCLUSIVE! FOCAL BUILDS A NEW UTOPIA FOR HEADPHONE LOVERS!

Focal Utopia open-back headphones

by Chris Martens

The French loudspeaker specialist Focal made its first entry into the headphone market space some years ago with its original Spirit headphone—a design that was later expanded upon to become an entire range of Spirit models. Looking back, the Spirit headphones were and still are perfectly good mid-priced entries that feature a number of praiseworthy design touches. But one thing the Spirit models were not was a no-holds-barred assault on the state-of-the-art in headphone performance. In retrospect, the absence of a top-tier headphone offer from Focal seemed odd given that the firm enjoys a reputation for constantly pushing the performance envelope of loudspeaker performance (with models such as the justly famous Grande Utopia EM system) and for making some of the finest loudspeaker drive units on the planet.

Not surprisingly, many asked if Focal might ever give its formidable design team free rein to develop a true top-class headphone. The answer is that Focal has now done so, ‘releasing the R&D hounds’, so to speak, to develop a stunning new pair of high-end headphones: the upper-echelon Elear (£800, or \$999) and the cost-no-object flagship Utopia (£3,400, or \$3,999). Since we, like many of you, are always eager to see and hear what a company like Focal can do when it decides to pull out all the stops, we asked if we could try a review sample of the top-of-the-range Utopias and Focal graciously obliged.

The nearly four-year long Utopia development effort began with a thorough investigation of the unique requirements of headphones and their associated drive units—an effort that led Focal to apply its formerly loudspeaker-centric design expertise in an entirely new way. Focal set the ambitious goal of designing headphones that, in Focal’s words, would “offer an audio experience worthy of the brand’s high-fidelity loudspeakers.” With that objective in mind, ▶



“The resulting design effort ultimately focused in three areas: driver development, frame design, and ergonomics.”

- ▶ Focal found it useful to think of its new headphones as ideal “compact ultra nearfield loudspeakers,” and specifically loudspeakers “with a perfect frequency response.” Naturally, Focal also wanted its design to offer exceptional resolution, exemplary transient response, uncommonly good stereo imaging, and low distortion. The resulting design effort ultimately focused in three areas: driver development, frame design, and ergonomics.

To meet the performance goals set for the Utopia, the firm developed an all-new 40mm dynamic driver equipped with a pure Beryllium diaphragm that features a patent-pending ‘M shape’ dome because, according to Focal, “a listening distance of an inch requires that the shape of the dome is completely redesigned to achieve a plane wave in ultra-nearfield listening.” At the same time, Focal also made every attempt to reduce the mass of all moving parts within the driver. Apart from its low-mass beryllium diaphragm, the driver also incorporates a special monolayer voice coil that foregoes use of a voice-coil former in order, says Focal, “to make it even lighter.” Likewise, the firm created an ultra-thin, well damped, and extraordinarily lightweight driver surround with a thickness of only 75 microns. All told, the mass of the driver’s moving parts is an astonishingly light 135mg.

Focal’s R&D efforts revealed that driver surrounds could potentially propagate surface vibrations across the face of the driver diaphragm causing a subtle veiling of the sound. To address this problem Focal carefully tuned the thickness, composition, and damping characteristics of the Utopia surround, focusing on the critical area where the surround joins the diaphragm dome, in the process almost completely eliminating surround-induced vibrations and noise.

The frame and motor magnets for the Utopia driver are special, too. Open-back headphones are not created equal and the fact is that the Utopia’s design is about as open as you can possibly get. With this end in view, the driver features a powerful but compact stacked, six-segment, ring shaped, Neodymium motor magnet assembly with a large and unobstructed opening directly behind the driver diaphragm. Similarly, the ear cup frame is a wide-open skeletal design whose open spaces are protected by high-transparency mesh grilles.

Many headphone designers treat ear cup enclosures merely as a framework for holding the drivers in place, but in the Utopia the ear cup frames play a more important role. Focal R&D had shown that driver positioning vis-à-vis the wearer’s ears has a huge impact on perceived stereo imaging. Accordingly, Utopia’s driver baffles (or “speaker plates”, as Focal calls them) deliberately position the drivers far forward in the ear cups with the drivers angled backward toward the wearer’s ears—an arrangement said to “favour the best possible stereo image.”

With an eye toward achieving the elusive combination of flexibility, stability, and consistent clamping pressures, Focal has given the Utopia thin, flexible, and resilient carbon fibre frame yokes that grasp the ear cups via

precision-made metal hinges that allow up/down tilt adjustments. Left/right adjustments do not require any hinges, since the carbon fibre yoke itself offers sufficient flexibility to accommodate them. The result is a frame that provides a secure yet always comfortable fit, with a just-right amount of clamping pressure.

Obviously, the Utopia frame contributes a lot to the headphone’s ergonomics, but so too do several other design touches. Up top, the Utopia sports a broad, leather-clad headband pad, while to the sides it provides extremely comfortable memory foam-filled ear pads. The pads feature New Zealand lambskin covers, but with inner openings treated to a 50/50 combination of perforated leather and microfibre fabric—a combination whose absorption characteristic are claimed to yield flat frequency response from 1kHz – 10kHz, while emulating the damping characteristics of an ideal listening room. Completing the picture is a 4m, very low impedance signal cable with OFC conductors, fitted with high-quality Lemo headphone connectors and a Neutrik 6.35mm headphone plug.

On paper the Utopia appears to be made of the right stuff, but does its sonic performance live up to its promise? In a word, yes! In fact, Utopia is by far the best dynamic driver-equipped headphone I’ve yet heard and one of the three or four finest headphones of any type that I’ve had the pleasure of auditioning. Let me take a moment, then, to describe some of the qualities that set the Utopia apart.

First, the Utopia offers effortlessly neutral frequency response—the kind of response that is so consistently balanced and perfectly even-handed from top to bottom that you can’t help but notice that this headphone has taken freedom from tonal colourations to a whole ▶

▶ new level. Bass, and especially mid- and low- bass is a particular area of strength, but the Utopia is actually good across the whole audio spectrum so that the longer you listen the more natural and inherently ‘right’ the headphone sounds.

Next, the Utopia comes tantalizingly close to matching the resolving powers and incredible transient speeds of today’s very best electrostatic headphone designs, though electrostats might still enjoy a very narrow edge in these departments. However, what tips the scales strongly in favour of the Utopia is its striking ability to deliver resolution, speed, and focus while simultaneously achieving almost complete freedom from unwanted resonances—a claim I think many electrostats cannot make without imposing some sonic caveats. The upshot is that the Utopia offers listeners breathtaking sonic purity while conveying an uncanny sense of musical completeness—completeness in the sense of delivering all the music, all the time. Try almost any track on Jamey Haddad, Lenny White, and Mark Sherman’s *Explorations in Space and Time* [Chesky, high-res] and notice how the Focals tease out even the smallest of transient, textural, and reverberant details, not to mention the reverberant spatial cues that make this album sound so very realistic.

Third, the Utopia consistently renders instrumental and human voices with disarming coherency and, for want of a better term, harmonic integrity. By this I mean that, through the Utopia, the fundamentals, partials, and upper harmonics you hear often sound as if they have emanated from real instruments or voices, rather than sounding like a well-intended but ultimately disjointed collection of hi-fi artifacts swept together in a neat pile. With the Utopia, more so than in almost any other headphone I could name, individual musical elements coalesce to form a cohesive whole that is greater than the sum of its parts.

Finally, Utopia offers flat out amazing dynamics. It can handle large-scale macrodynamic outbursts, small-scale moments of microdynamic expression so subtle and fleeting that most headphones glaze them over, and everything in between. But the thing that is absolutely riveting—and at times downright shocking (in a good way)—is the manner in which his headphone exposes dynamic contrasts within individual pieces of music. The effect can be almost unnerving at first, because in comparison to the Utopias almost all other transducers sound as if they are guilty of some form of dynamic compression. Through the Utopias, however, that compression is suddenly removed leaving you face-to-face with sheer dynamic power of the music. As an example, listen closely to Tomasi’s *Fanfares Liturgiques* for brass ensemble as performed by organist Mary Preston and the Dallas Wind Symphony conducted by Jerry Junkins on *Crown Imperial* [Reference Recordings, 24-bit HDCD]. The composition is revealing because it ranges all the way from almost monastery-quiet meditative passages on through, toward its conclusion, to moments of epic and uplifting grandeur. Through all these moods the Utopias not only remain unflappable, but are at once powerful, expressive, delicate, and nuanced—at any and all volume levels.

The Utopia is a headphone worthy of its name and one that shows what’s possible when a firm like Focal turns its engineers loose to create the finest headphone they possibly can. In fact, I consider this headphone a masterpiece—one that will probably still be considered a benchmark product long after would-be competitors have come and gone. +

TECHNICAL SPECIFICATIONS

Type: Full-size, open-back, circumaural, dynamic driver-equipped headphones

Driver complement: 40mm full-range dynamic driver with a pure Beryllium diaphragm featuring a (patent pending) ‘M’ shape dome

Frequency response: 5Hz – 50kHz

Impedance: 32 Ohms

Sensitivity: 104dB SPL/1mW @ 1kHz

THD: <0.2% @ 1kHz/100 dB SPL

Accessories: 4m shielded, low-impedance signal cable with OFC conductors and fitted with Lemo self-locking bayonet type headphone connectors and a Neutrik 6.35mm headphone plug; rigid carrying/storage case with magnetic closure system.

Weight: 490g

Price: £3,400 UK, \$3,999 US

Manufacturer's Information: Focal

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“The Utopia offers listeners breathtaking sonic purity.”