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Magnat *LZR* 980



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Magnat LZR 980
Test 01/2015

**“...INVOLVING, POWERFUL, YET WITH GOOD
RESOLUTION!”**

Magnat *LZR*

Magnat Audio-Produkte GmbH · Lise-Meitner-Str. 9 · 50259 Pulheim · Germany · www.magnat-LZR.com



Magnat

LZR
980

FERRARI FOR THE EARS?

When an acquaintance really raved about a set of Magnat on-ear headphones to me recently, I admit I was a bit skeptical. After all, I was not familiar with Magnat as a producer of headphones (www.magnat-lzr.com), nor did I have the best memories of Magnat as a speaker manufacturer. A mistake maybe, given what emerged after looking at the Pulheim-based company's current range in a bit more detail.

In the late 1980s and early 1990s, just at the time hi-fi was starting to be a passion of mine, the word in the „enlightened“ scene was that the products from Magnat were aimed more at quantity than quality. But those times appear to be in the past, with the company now offering a sophisticated range of classic stereo speakers and soundbars, from stylish slim-line loudspeakers, to car hi-fi amplifiers and speakers and even tube hybrid amplifiers like our award winner, the Magnat RV-3.

The range of acoustic transducers is rounded off at the top end by the recently introduced Quantum Signature (€7,500 per pair) weighing in at a good 73 kg each. This is a statement by the traditional manufacturer that nobody else in this league really saw coming and which, from what we hear, is not only extremely potent in the bass range (that probably doesn't surprise anyone), but apparently also satisfies the keen senses of audiophiles with its high-grade tube amplifiers. But we're not concerned with that here – even though this development is a pointer to what Magnat's latest product category is: high-quality headphones.

Headphones are now certainly no longer a niche product but, rather, a must-have in the range of every manufacturer who wants a part of the big, sweet cake of mobile music consumption. However, they are by no means easy to produce as the extreme proximity of the transducer to the ear and the special acoustic conditions in a very confined space require specific know-how and considerable experience in the development and composition of the individual components – even the smallest errors can adversely affect the quality of the sound reproduction. It is therefore a fallacy to believe that a manufacturer in control of its loudspeaker technology could also quickly launch a headset on the market „just like that“ and simply buy a ticket for a first-class product in this way.

Magnat is aware of this and has therefore not just equipped its LZR line headset with innovative technology (details later); there are no half measures in the design either, with Ferrari's top team being commissioned to design the LZR 980 top model. Incidentally, my acquaintance mentioned at the beginning brought the mid-range model LZR 760 for testing. While this is designed as an on-ear headphone, the LZR 980 – like the LZR 580 entry-level headset – is an over-ear type, i.e. covering the entire ear and thus (theoretically) offering the best wear comfort.

Practice and technology

There is no doubt that Pininfarina knows how to design and build beautiful things. The Ferrari 612 Scaglietti or FF, the Alfa Romeo Giulietta Spider or Quattrotanta, the NSU Ro 80 or BMW 7er Gran Lusso – the Italians have, in my opinion, delivered some of the most exciting and beautiful designs of the automobile era.

However, the creative specialists from Cambiano have also made an impressive name for themselves in the area of industrial design: Their illustrious client base includes such names as Samsung, Packard Bell and Coca Cola, with Pininfarina's clear and organically flowing forms always an essential part of the final result.

And now, Magnat has also secured the services of the grand master of design from Italy for its top model, and the result really is incredible – in my view. Let us take the earpieces as an example: For me, they evoke associations with the natural form of a leaf.

Placed on the head correctly, they flow forward somewhat, almost imitating a Hofmeister kink (double-angled transition from the C or D pillar of a BMW vehicle to the body of the car). This gives the design momentum, making it come across as dynamic and powerful. However, it is not the appearance alone that makes the design, Pininfarina and Magnat have also selected very high-end materials combined with top-class workmanship. The soft-touch material of the ear cups and head band has a very pleasant, high-quality feel to it. The LZR Pro covering fabric used is fine, soft and gives the impression that it will not sag, even after being used for a long time. Concealed beneath the cover with the color-contrasted seams is a memory foam layer, which helps the padding to adapt perfectly to the wearer's ears and head.

The width of the headphones can be set over a generous range via the normal ratchet adjustment in the head band, which moves smoothly, though also somewhat sluggishly on occasions. The individual setting points could be somewhat better defined, as it is easy to go past the optimum point when adjusting before you finally get the right width. The LZR 980 rests a little tightly on the ears – on my head at least – with the result that I needed to take a small break after listening for a longer period of time. Mind you, my skull may well also be a bit „thicker“ than the average head (that's what I've been told, anyway). Apart from that, I wear spectacles and my ears appear to be just a bit bigger than a lot of other people's – as with most over-ear devices that I've tried so far, the tips of my ears touch the inside of the ear cups.

According to Magnat, the acoustic chamber is ventilated effectively using the „Air-Tec“ ventilation system (breathable materials and a ventilation opening in the ear cups), and I really could not complain any more about sweaty ears. The LZR 980 can be folded away, of course, and the transport box provided, a little chunky but stable, also accommodates accessories like one of the two cables supplied.

The connectors, fitted with a high-quality angled plug, are interchangeable and are plugged into one side of the headset. One of the two cables has a remote control for the volume, including microphone for the headset function – to soothe the audiophile conscience, the purist variation without any unnecessary obstacles to the signal flow is naturally recommended. Magnat uses high-purity OFC copper, gold-plated connectors and anti-kink protection at the relevant points. According to the manufacturer, the cables of the LZR range are „tangle-free“, which means that, thanks to their special structure and corresponding surface, they will not get tangled up.

A small point of criticism, which I have to make of almost all headphones nowadays, is the difficulty of finding the identifying marks for right and left – ok, you know after putting them on for the first time that the cable plugs into the left ear cup, but is it really necessary to have to search with a magnifying glass for tiny markings with no color coding? In semi-darkness, for example, you cannot see anything at all! Surely something can be done about this. As mentioned at the beginning, Magnat not only uses very good materials for the enclosure of the LZR 980, it also wants to impress with special technologies. According to Magnat, the drivers developed with a so-called Klippel laser measuring system are the very first of their kind. This laser measuring technique is designed to surpass the precision & accuracy of the measurements compared with conventional methods by many times. The laser beam functions in a specially developed vacuum container and scans the driver cone in an ultra-precise way.

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This enables an in-depth analysis of the chassis, immediately revealing even the slightest discrepancies in material and performance. The laser of the Klippel system, according to Magnat, makes it possible to effectively optimize the driver system in the low-level range, in particular. This should be reflected in enhanced dynamics, less distortion and higher resilience.

The Klippel measuring system is also described outspokenly by the manufacturer as the centerpiece of the LZR technology, which can be used to intervene directly in driver vulnerabilities and optimize this. We also measured the Magnat acoustically, of course, using an artificial head measuring system with a modern „Ear & Cheek Simulator“, which reproduces the anatomy of the human ear down to the last detail. This also leads to extremely realistic and practically oriented measurement results, according to Magnat.

The real heart of any headset is, therefore, still the driver itself. The „Laser Tech Driver“ used here and derived from loudspeaker technology by Magnat has a diameter of 40 mm and a foam damping element centrally behind the cone. This is designed to effectively suppress undesirable reflections. In the top model and the LZR 760, the Laser Tech Drivers has a further special feature: The „Metal Core Technology“ provides the delicate cone with increased stability by means of a circular coating of titanium in just the right place, designed to make the driver even more distortion-free.

The LZR 980 is available in black with black ear pads (black rubber paint) and in white with brown ear pads (pearl white). Both versions look stylish, upmarket and elegant, though I repeatedly find myself not wanting the classic black headphones but, rather, the white version - somehow, it simply looks great with its brown ear pads. Whatever, in the end it's all about what's inside and what comes out, and the ingredients of the LZR 980 do promise a lot..

Sound

As already said, I find the contact pressure of the ear cups a bit too tight, but that greatly depends on the size of your head. Anyway, my Sennheiser Momentum fits over my ears more easily and is lighter.

However, the joy about this lasts just about as long as it takes for the first notes to reach my eardrums from the Magnat LZR 980, because they are immediately quite stunning.

After a good 100 hours of being played in on the Meier Audio Corda Classic headphone amp, the cones have well and truly been put through their paces: The top Magnat model is characterized by authenticity, promptness, lightness and the unchecked dynamism of Hugh Masekela's live album „Hope“. Although the „Hope“ live album from Hugh Masekela has almost been played to death, it is still an experience, musically and in terms of sound. „Stimela“, the grandiose climax of the album, was left out this time and we chose track number 7 „Languta“ instead. This song also displays just about all the facets that characterize the performance of the Magnat. Let's start with the treble range. It beats the Sennheiser Momentum in this regard with squeaky clean, sparkling resolution which, in itself, gives an important clue to the basic character of the LZR 980, which could best be described in concrete terms as „direct“ and „lively“. Where the Sennheiser applies the principle of elegant restraint, the German-Italian unit generates an extra layer of energy, but his never drifts into harshness or allows the tonal balance to slide into lightness.

This is prevented by the clean, more round than edgy mid-frequency range, which is underpinned by a strong upper bass and a deep, punchy low bass. Incidentally, the upper bass is perhaps the only aspect of the tonal coordination that could be criticized to some extent.

The reason for this is that, although it is not really too full, it is a bit conspicuous in an otherwise very neutral frequency with its slightly larger body. To some extent, a sneaking suspicion can at least be entertained that it could be covering up or concealing something in the lower mid-tone range, which the momentum, exemplary in this regard, pushes onto the acoustic tablet in a very transparent way, for example. I'm sure it is the curse of a performance very close to tonal neutrality in the other frequency ranges that makes minor deviations stand out more clearly on the Magnat model. In any case, the additional energy in the bass contributes to the intense dynamic abilities of the LZR 980, which are very enjoyable, especially with directly recorded drums and electronic music. This is not only due to the sheer power with which the Magnat knows how to act but, rather, also to its simultaneously very pronounced sensibility, its feel for the finest dynamic differences that it is able to transport. The phrasing of master-musician Masekela's trumpet is reproduced sensitively and effortlessly in all its shades and tones, while the kettledrum and the percussion instruments hit the target, i.e. the eardrum, spot on with unbelievable speed and precision.

I think that's the greatest talent of the Magnat LZR 980: I have never before heard the direct, almost explosively rapid dynamism, even perceptible in the mid-range physically as an incisive shock wave, of musical instruments and other acoustic impulses in this way in this price range from a (compared with DJ headphones, rather more domesticated and civilized) hi-fi headset. And in addition to that, I cannot remember anything that could match the Pulheim product in terms of directness in all frequency ranges. Only the exceptional Japanese Fostex TH500 RP headset (around € 700) can (in my mind) surpass it in this respect and inject more space and air. In this respect, indeed, the Magnat clearly gives preference to directly addressing the sensational effect and fun factor ahead of expansive soundscapes. Even though it also surpasses the Sennheiser Momentum in this discipline (albeit by a hair's breadth).

The latter is a little bit better at creating transparency in the mid-range, which can also be attributed to the somewhat more gnarled, wiry and leaner bass. On the other hand, the Sennheiser comes across generally as more detached and, in a direct comparison, dynamically withdrawn and substantially less involving, with the result that the Masekela band's pure joy of playing is perceived more at the intellectual level than with the Magnat, which produces distinctly more emotional sound in this respect.

The distance of the momentum in direct comparison with the LZR 980 is also reflected in the very different spatial representation of the action. With the delicate Sennheiser, everything seems to be somewhat further away from the listener's ear - though without being able to play on a bigger stage. On the contrary, the Sennheiser comes across as spatially more compact and minimally more blurred, whereas the Magnat reproduces more „in your head“ while also being able to fill it throughout with precisely defined, crisply sharp acoustic sensations. In addition, the sound pattern (despite the concentrated reproduction) stretches, where necessary, far beyond the confines of the ear cups - which can be heard beautifully on the floating keyboard in (and that's precisely where it is) „Stimela“ by Hugh Masekela.

Magnat on the iFi DAC. As the final cross-check on the program, a comparison was made with my private reference headset, the Final Audio Design Pandora Hope VI. It costs almost three times as much as the Magnat and is a solid piece of headphone art with a two-way balanced armature driver. This gives the Hope VI a very precise, high-resolution sound which - very much in contrast to the Magnat, where I have to think of fine, soft cloth - evokes associations with steel and crystal.

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This may sound negative perhaps, but it is not meant that way: In direct comparison with the silky-powerful playing Fostex TH500 RP already referred to, the Pandora stands out as a neutrally precise, sober conveyor of information and, in this role, it also shows the Magnat LZR 980 quite clearly where its limitations lie.

Listened to on the Final Audio Design, the musicians in Barb Jungr's „The Times They Are A-Changin'„ from the „Man in the Black Coat“ album (192 kHz/24 Bit FLAC, via iFi iDSD nano) give each other more space and communicate better with each other, the sound pattern comes across as more purified and open and spacious as well as, thanks to the complete lack of bass body, also more precise and more neutral in terms of tone. The additional information provided by the Pandora in the treble range appears to remove another layer of acoustic veil while the Magnat, for its part, does not have any need to catch up when we listen to Charlotte Gainsbourg.

In the bass range, the German product still pulsates a little more strongly, reproduces the sound of the tom-toms and the quite full tapping bass drum in Charlotte Gainsbourg's „Le Chat Du Café Des Artistes“ (album: IRM) with more body and is thus clearly qualified for all musical directions involving electrical amplification and/or electronic tone generation. A brief excursion into the realm of Death Metal with „2014“ by God Dethroned (album: The Toxic Touch) and „Anubis“ as well as „Persepolis“ from Septicflesh's hit album „Communion“ released in 2008 then also confirms this immediately: Powerful, precise, with power and no harshness, even at volume no longer friendly to the ears, this is perhaps the headset best suited to all types of metal that I have come across so far in the €300 range.

Test result

The sound precision of the Magnat LZR 980 is defined not only in a particular frequency range or in terms of the presentation; rather it pervades throughout together with the directness of the reproduction as a characteristic double seam through the skilfully crafted sound quality. Nothing is torn or frayed, the material the Magnat creations are made of does not cast any wrinkles. And even if the texture of the LZR-980 sound overall resembles (to stay with the metaphor) velvet and silk more than polyester or Gore-Tex, if it wraps sounds more warmly rather than exposing them in a purist way, it does not conceal anything, instead providing insights into the acoustic event which surpass the quality normal in this price range.

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Although a Sennheiser Momentum, for example, is somewhat better at creating transparency in the lower mid-range, the resolution of the Magnat heard over the entire spectrum is at least on a par - and even distinctly better in the treble range.

The characterization of „warm“ should not be confused with a slowly or poorly designed sound. Quite the opposite: the Magnat LZR 980 takes off as if possessed, placing sonic torpedoes with precision and with an almost physically perceptible impact.

In this regard, only a headset twice the price, like the Fostex TH500 RP or the Final Audio Design Pandora Hope VI, can outperform it in this regard - though in almost all other respects, the attractive headset from Pulheim is right up at the front beyond its price range.

I.e.: Anyone looking for a direct, involving, powerful, yet high resolution sound that is simply enjoyable for any type of music (though particularly with electric amplification and/or electronically produced) simply has to try out the Magnat LZR 980. Also to guarantee that it does not sit on the head too tightly - the only reason why it will likely not replace my Sennheiser Momentum in mobile use. But maybe I will have to reconsider that.



The Magnat.LZR 980 ...

- displays impeccable quality workmanship, high material quality, a very nice feel and looks really stylish - thanks to Pininfarina!
- is maybe a bit too tight on large heads, and the ratchet for adjusting the size could be a bit smoother and better defined.
- allows you to listen for a long periods without „getting hot ears“ thanks to its Air Tec ventilation technology.
- sparkles with its powerful-dynamic sound, which is particularly enjoyable with music of the heavier genre and electronics.
- creates transparency and resolution with extensive tonal neutrality despite its small bass body.
- offers a crisp-transparent treble range that never slides into shrillness and also reproduces impulsive, incisive dynamic leaps in the mid-range.
- crisp and spatially precise performance without creating huge spaces - the action plays more in the head than all around.
- can also be used easily on portable devices, but appreciates high-quality players with even more control and thrust.