

## German Physiks Review Translation

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**Product Reviewed:** German Physiks Borderland

The Borderland loudspeakers reviewed were fitted with carbon fibre diaphragm DDD drivers, which in this model cover the range from 200Hz to 24,000Hz. The other driver in the Borderland is a 12 inch woofer. The Borderland is also available with titanium foil diaphragm DDD drivers.

The Borderland's cabinet is an octagonal column, very similar to that used in the German Physiks HRS 120. This shape minimises reflections inside the cabinet and allows the use of smaller sized panels, which are consequently stiffer, making the cabinet rock solid.

The efficiency is specified as 86dB for 1W at 1m. This seemed conservative, as during our tests it did not appear to us that the loudspeaker was power hungry. The minimum impedance is specified as 3.5 ohms. While this is not particularly low, it seemed to us that the best results were achieved when using amplifiers that were known to cope well with more demanding loads. It may just be my impression, but I would advise anyone interested in these speakers to carefully select the amplifier they use, in order to avoid the feeling of driving a car with the hand brake on.

I did not change the setting of the mid-high level control on the rear panel, preferring to leave it in the flat position. The Borderland is heavy (55kg/121lbs) and moving it around my room in order to get the best sound proved quite hard work for me.

### LISTENING

This particular loudspeaker was to be demonstrated at the Rome Hi End Show (17<sup>th</sup>/18<sup>th</sup> November 2007) and in order to have two opinions, we decided to have Paolo Di Marcoberardino write a report of what he heard there. His comments are shown later.

The system used to test the Borderlands in our listening room was: Esoteric P03 – D03 transport and D/A converter, Viola Cadenza preamplifier and Rowland 302 power amplifier. The loudspeaker cables were Audioquest Q2 and the interconnect cables were Cableless Gamma Ultra.

Starting with the upper frequency range, this is incredibly fast and silky smooth. Because of the extreme transparency of this loudspeaker, the quality of this frequency range is very much influenced by the quality of the amplifier used, which in my opinion must be both sweet and dynamic. If the amplifier is not smooth, the resulting sound can be slightly metallic and fatiguing. If the amplifier used is not dynamic, then the incredible speed of the DDD driver will be compromised and the texture of the sound can become thin and indistinct.

In the mid-range the Borderland offers stunning realism, with a sound that has great body and solidity, which at the same time is very open and airy.

The low frequency impact was a little more modest than I had expected from reading the manufacturer's literature, but that may have been related to the omni-directional nature of these loudspeakers. Having said this, the low frequencies were extremely fast and this allowed for excellent integration with the mid and high frequencies, with no loss of coherency. The stereo imaging was very deep, but it seemed not to be as focussed as I am used to. Again this may be due to the omni-directional nature of this speaker, which is something I am not very familiar with. The width of the stereo image appears to be very dependent on the room; which should not be too large and have average reflective characteristics.

My feeling about the dynamics and I must emphasise that this is just my feeling, is that there was a slight lack of impact, but I think this was due to the absence of compression and the low distortion that these loudspeakers exhibit. The Borderland does hit and it hits hard, but as in the case of some electrostatics, it seems to do so less than a traditional dynamic loudspeaker. With the Borderland the lack of compression and the low distortion means that you will probably blow up your amplifier before you notice any listening fatigue!

## **CONCLUSIONS**

With this product German Physiks takes us to territories where just listening can be confused with reality. Some aspects of the Borderland's performance are absolutely magical: the high and mid ranges; transparency and speed are of the highest levels possible today. The necessity to take some care in choosing the partnering amplifiers as well as being prepared to spend some time with the set up means that they are better suited to the more experienced audiophile than the absolute beginner.

## **PHILOSOPHY OF A SYSTEM**

### **The Borderland at the Rome Hi End Show by Paolo Di Marcoberardino**

It did not take me long to realise that the main point of interest at the Rome Hi End Show was the room of the importer LP Audio, where I immediately recognised a system that was the result of some very careful thought and research. It was a system that offered not just a mere "listening experience", but also a sort of richness, due to the pragmatic approach taken in its assembly.

Undoubtedly with some other importers, there are commercial or economic decisions that influence the choice of components in a system and so divert us from the ideal. This is of little interest to audiophiles who invest large amounts of money to reach audio nirvana. For this reason I dwelt on this particular system, as it correctly exemplified the idea of high-end audio, to be pursued as a precious alchemy and so become an important personal experience. This system comprised high cost and equally high performance products from LP Audio's line up, together with tube electronics from SI Audio.

As soon as I entered the room I immediately thought that the system matching was very interesting; capturing my attention both for the beauty of the equipment and the courage of the choices. The beautiful German Physiks Borderlands dominated the scene, powered by SI Audio's Krypton 1000 mono tube amplifiers. The remaining parts of the system were less intriguing, but nevertheless well matched to the main components: an EMM Labs CDSA SE, which is a top quality digital source; an Origin Live turntable and SI Audio's top pre-amplifier.

I immediately thought that a system in which a triode power amplifier, even if capable of more than 100 watts in class A2 mode, used with an omni-directional loudspeaker that might not be the easiest of loads (86 db for 1W at 1m efficiency and an average impedance of 4 ohms), was a courageous choice and may even have been the cause of some raised eyebrows.

I had previously listened to these German Physiks loudspeakers at another show, that time connected to the prestigious and beautifully made electronics from Viola Labs, a combination proposed with pride by the importer. Two products of such extreme quality cannot fail to impress but, and there was a but, it slowly dawned on me that although we were listening to a very fine sound, with quality peaks in some areas, something extra, a sensation of musical realism that every system of this quality should have, was missing.

At the Rome Hi End show, the system was skilfully set-up. Being located in just a part of the room, this resulted in a large part of the available space being lost, but it allowed the radiated sound to be more coherent, with less distance between the loudspeakers and the walls, so avoiding reflections with significant delays.

Talking about how the system sounded is not an easy task. The room was unfamiliar; I did not have my reference recordings with me and there was the distraction of people around me talking. Having said this, one aspect was very convincing. This was that where ever I was in the room and what ever music was played, the sound was always the same and always provoked the same feelings.

As well as discussing the sound of these loudspeakers, I also want to talk about the thinking and philosophy behind their design. It is true that the sound quality of a system depends on the source, but the soul and character of the sound depends on the loudspeakers. Among the wide range of loudspeakers available today there are some very good ones such as the UK made monitors; correct and well-balanced, that reproduce the signal without having any specific character of their own. Then there are the loudspeakers that show a distinct character. The Borderland is such a loudspeaker, its character being constituted by its extreme detail, openness, transparency and control, with a just perceptible underscoring of the area between 6kHz and 8kHz, that illuminates the stage with a very bright light, but risks becoming dull, especially with recordings that are less than perfect, as happened when used with the Viola Labs electronics.

The Borderlands use an omni-directional driver, like their compatriots MBL, and with which they share an intrinsically superior sense of spaciousness, free from the “tight sweet-spot”, and which extended to almost the whole listening room.

Turning to the other part of this magical pairing, the SI Audio tube amplifiers, these have huge output transformers, which based on the superb sound, I assume were themselves of extremely high quality. The pairing of the SI Audio amplifiers with the Borderland was not accidental as I was told that their manufacturer requested that these electronics be used, and that there might be some future cooperation between these two brands.

If with the Viola electronics, which were exceptional in other respects, the analytical nature of solid state – even if was of a modern and fluid nature – wasn’t helping the system reach its target of sonic accuracy, then the SI Audio tube amplifiers brought it back on target, whilst avoiding overcompensating and creating listening fatigue. Here we had everything we needed, and something more; a sense of musicality that was the result not only of the right frequency balance, but also the result of a tactile sense of the event, as though the system was constituted of violin strings or vocal chords, depending on what the music being played called for. We should not forget the value of the other parts of the system, but in this case they were unavoidably just supporting actors.

On listening, the first thing I noticed was a mid-range that was absolutely beautiful in its realism. By this I mean natural, well-defined, airy, but most especially harmonically correct. It was not left to the imagination what followed the fundamental note, which is the body of the “sound message”. Instead it was presented in its entirety, so we did not have to imagine the tonalities, the ambient echoes within the original recording space or the natural tonal colours of the various instruments. The Borderland simply gave us everything; effortlessly and without fatigue. All the components of the sound picture were correctly presented and they moved coherently and fluidly without overlap. The sound was never fatiguing, even at high levels, thanks to the generous output from the amplifiers, and the Borderlands followed the dynamic patterns with perfect speed and great poise.

Vocals were solid in their presentation and gave body to a person, not just to lips. Anyone who often listens to live music will well understand what I mean by this.

Timbrally there was only a very slight tendency to lighten the portion of the high range we referred to earlier, but this was the only criticism worth noting and in any case was only appreciable on a very few occasions when the loudspeakers gave a slightly less warm presentation of the instruments. Even so, they did not modify either the timbre or the body of the sound.

It is important to stress the help the amplifiers’ triode output stages gave in producing the final sound balance. More than once when listening to this system I had the impression of seeing a ballet dancer moving in the centre of the stage, while with the Viola Labs electronics she was dancing at its edges, allowing me to see her more closely, but with the feeling that she was close to falling off the sides.

The high frequency range was impressively clean and well defined (the similarity with MBL was evident) – extremely thin yet solid at the same time and never vague. It was always at the service of the music, adding light and air, harmonic completeness and endless clarity. Here the tubes reached their target; adding refinement and transparency without compromising the naturalness. They produced a signal without excesses that could be freely interpreted by the loudspeakers. If we are looking for a “notary” loudspeaker, we should look to other models for something more safe and soothing like a comfortable sedan car, because with the Borderland we have a hardcore super-pure racing car.

The 845 triodes in this wonderful system gave us a sense of humanity and truth; in the Borderland meeting their ideal partner, the loudspeaker they were meant to be matched with; a loudspeaker which was sure footed, following the signal dynamics of the music faithfully, while providing clean and accurate bass and so allowing the SI Audio triodes to fully express their musicality. It was a union steeped with magic and reality.

Often while listening I found myself smiling with the pleasure produced by a particular musical passage, or by the perfection of an orchestral arrangement, or the solidity of a crescendo. The imaging was authoritative, extended in depth, large, always accurate and allowed us to effortlessly imagine the placing of the objects within the sonic image and only when playing at the very highest levels was the image slightly enlarged.

The superb EMM Labs extracted every nuance from CDs with irreproachable neutrality and with all the harmonic richness possible for a digital machine; but when we played the magnificent LPs of Giulio Cesare Ricci, we bordered on the real event, and we did have most of the real event as we had the fantastic opportunity to hear some original master tapes brought by Giulio Cesare. These were played on an Ampex open reel tape machine that had been customised by David Manley, the previous owner. Here absolutes were enforced because the system was able to reveal the extreme purity of this source, being the original and therefore superior to any subsequent copy. Around me I saw astonished faces, some watching each other with incredulous, surprised expressions.

If I have to describe what impressed me about this room, I would probably say it was the musical performances and it was indeed so, but after thinking more about it I would say that what impressed me more was the "sense of the system", the fact that an amplifier of such extreme quality was able to drive in a distinguished and convincing manner, a pair of loudspeakers that cost considerably more. At this level, it is no longer essential to spend more to get the best. Instead it becomes necessary to think about what you want to achieve.

The technical aspects of these speakers seemed to suggest that a solid state amplifier would have been the best option to drive them, and perhaps a very sweet, extremely high quality amplifier could have been a good match. Generally I would not suggest a valve amplifier as the ideal solution, but considering the specific nature of the SI Audio mono blocks and their splendid alchemy, one very rarely found in valve amplifiers, I wholeheartedly recommend them.

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