



## Schnerzinger LAN Protector

During my tours of the exhibition halls at this year's Highend Audio Show in Munich, I realised how difficult it was for me to muster up a healthy dose of journalistic curiosity for new cable products. On the one hand, I realise that I am overstepping the "neutrality zone" required of a reviewer with this statement. On the other hand, a journalist should be allowed to present his or her own convictions – as long as they are based on learning and experience and don't just originate from the world of one's own imagination. To put it bluntly: I consider many approaches to the development of high-end cables to be outdated. In my opinion, there is usually no "holistic" approach that takes a comprehensive look at the increasing negative influence of electrical interference fields on sound. Cable designers from the 1970s, for example, did not have to deal with the effects of radio transmission and the resulting high-frequency interference on loudspeakers, amplifiers and analogue source devices. Since my encounter with the cables from Schnerzinger's "Essential Line" (see image hifi, issue 04/2022), not

only my view of cable development and interference field elimination has changed radically. With the support of Dirk Klocke, the innovative head of the Dortmund-based audio manufacturer, I have subsequently been able to delve even deeper into the Schnerzinger product universe, which brings me back to my initial statement: the technologies that Schnerzinger uses to suppress interference in signal, power and data transmission are the polar opposite of "outmoded". Rather, they are cutting edge – and have been for more than a decade.

Research at the Dortmund-based high-tech smithy is currently resulting in three core technologies: The first is "atomic bonding" – a special formatting process of the conductor material which, according to the manufacturer, results in an extraordinarily homogeneous and stable molecular structure. All Schnerzinger cable products are said to have double interference field protection in the gigahertz range. The so-called "bidirectional barrier" is designed to prevent the penetration of high and low frequencies into the devices as well as blocking electromagnetic interference from inside and outside and – very importantly – not passing it on. The third technology goes by the name of "Giga Canceling". This has resulted in controllable devices that absorb electrical interference fields up to the gigahertz range from the environment, process them and emit them again with a time delay. This defined offset should lead to the desired cancellation effects and thus to a massive





reduction in sound interference – without affecting the bandwidth and speed of the audio signal. I can only sincerely hope that you are not put off by the marketing-laden names or that you belong to the faction of the eternally disbelieving Thomases. Because you would be depriving yourself of the opportunity to discover truly astonishing components – I’ll stake my writing hand on that. These include the latest “baby” of the Schnerzinger “Giga-Canceling” product family, which has been christened the “LAN Protector”.

For the past two months, I’ve been working intensively with this small, impeccably finished black box, which comes with a 12-volt switching power supply and a “GS-105” 5-port network switch from US manufacturer Netgear. The LAN Protector is designed to free all network cables in the home from digital interference fields and eliminate them before they reach the home hi-fi system. The result, Schnerzinger promises, is a dramatic improvement in audio streaming and picture quality. In order for the LAN Protector to do its job, it is either connected to a network socket, the router or via the enclosed switch. Dirk Klocke informed me that the latter does not have to be the last word in network switches. The company had experimented with various high-end switches available on the market and found that these did not necessarily harmonise with its technology, as they usually have an over-damping effect and therefore often limit the bandwidth of the LAN Protector, which operates virtually without restriction in the three-digit gigahertz range. There would certainly be “better” switches developed for the audio sector than the GS-105, but at the end of the day only trial and error would help. The Netgear switch is at least a “solid” starting point, as it is designed without oversized filters. Filters, as well as capacitors, resistors and diodes, are taboo in Schnerzinger’s Giga-Canceling technology, as they absorb energy and release it again with a time delay. Household appliances such as washing machines and dish-



washers, computers or the increasingly popular high-end battery or rechargeable battery solutions would radiate into all hi-fi components via the mandatory protective earth conductor. A mains filter in front of the device is therefore not a real solution. The LAN Protector, on the other hand, also cleans up all interference that comes via the protective earth conductor and cannot be compared with the outdated mains filter technology used for high frequency. In addition, the problem of equipotential bonding currents should not be underestimated: the different power consumption of the devices means that the currents try to equalise each other, creating electric fields that have negative effects on the sound.

In practice and with regard to the LAN Protector’s connection options: whether connected to the router, the network socket or a switch – the best result in terms of sound must be determined by listening. There are two RJ45 network connection sockets on the back of the device, which work with different clock rates and thus detect a wide variety of interference fields. The connection to the LAN Protector, which has no signal forwarding function and is therefore not connected to a hi-fi device, is made using standard network cables. My series of tests started in passive mode, i.e. without using the power supply unit supplied. It soon became clear that I only needed to use one of the two RJ45 sockets to achieve the best results. The different intensity of the “cleaning circuits”, which are initiated by using socket A and/or socket B (double cleaning circuit), can each be increased in two stages using the toggle switches above the sockets. As I mainly listen to music in the evening, passive operation at socket A and level 1 was completely sufficient in my listening room. The use



of, or parallel operation with, socket B did not reveal any further sound improvements. However, when I started my listening sessions during the day, I found that active operation of the LAN Protector connected to the mains was preferable. This is probably due to the greater contamination of the mains supply and the greater interference fields caused by the use of different devices in an apartment block.

The sound changes caused by the LAN Protector are immediately noticeable. However, it takes a while for the device to take full effect. As I don't have a separate network wall socket in my flat, I only had the choice between a router and a switch to connect the LAN Protector to. And this is where it gets really interesting: when I connected my music server, the Tars from Genuin Audio, to the Netgear switch, the gain in micro-detail information, spatiality and transparency was so striking that I doubted my own perception. Thank goodness I can always rely on other listeners to confirm my impressions – as they did in this case. However, this enormous improvement was accompanied by a thinning out of the fundamental range, so that I could not describe the sound image as “completely homogeneous”. However, the direct connection of the LAN Protector to the router proved to be a game changer: here, too, the increase in micro-detail was considerable, although not quite at the level of the pairing with the network switch. However, there was no loss of basic sound substance and the aforementioned increase in transparency was also retained. What was added now was a fascinating enrichment of the spatial information. The stage that now spread out in front of me reached a new holographic level. The resonance of strings and wind instruments seemed more natural, giving my digital track even more analogue flair via the Genuin Audio “Ava” loudspeakers equipped with Class D power amplifiers. Sensational!

Attentive readers will no doubt have noticed that I was talking about a music server. That's right! I don't stream at all. The “Tars” plays music from the hard drive and is only connected to the router via a network cable in order to obtain the meta tags from

databases that are required for cataloguing in the Roon player after the CD has been ripped. So you can imagine it yourself: if the sound improvements from using LAN Protector on a music computer are already so significant, what will happen when streaming? I can only tell you this much: a friend who streams mainly via Qobuz and Bandcamp has started putting money aside to buy a LAN Protector from Schnerzinger. And my neighbour, who lives on the same floor and has absolutely nothing to do with high-end audio? Well, he's just enjoying a better TV picture and has no idea why. My conclusion: the LAN Protector from Schnerzinger seems to me to be a must-buy for all those who want to experience digital media in a new sound dimension. Unfortunately, there are still a few openings for interference fields in my system that are crying out to be cleaned up. Perhaps I will succeed in closing these completely with the help of Dirk Klocke. Perhaps only then will Schnerzinger's complete work of art unfold its full magic and reveal the true capabilities of my system! I'm looking forward to that day...

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**Product:** Schnerzinger LAN Protector, Price: 4790 Euro

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