

## Dipl.-Ing. Bert Gerlach

### *Engineer*

All analog circuitry of the Playback Designs products are developed by Bert Gerlach, a young German engineer. He is not only an audiophile with years of listening experience in several recording studios, but being a musician himself he also brings lots of enthusiasm to his work with audio products. After his medical studies, which gave him a deep insight into the human anatomy, including the functionality of the ear and its analyzing part that we call the brain, he received a diploma in electrical engineering – together a perfect combination for building high end audio gear.



In 2004, working together with Andreas Koch for the first time during his semester as an intern, he embarked on creating a digital format converter. After finishing his studies in 2005 he started building his own products, foremost the analog pre-amplifier Puralio, which he showed at the High-End show in Munich in 2007. As a lucky coincidence, Andreas Koch also visited this show and became enamored with the impressive sound of the Puralio. Once Andreas decided to start Playback Designs, Andreas brought in Bert to design an analog output stage for what would become the Playback Designs 5 Series. During this process Bert also re-designed the D/A converter right where digital becomes analog.

With its discrete filtering and discrete output stage without any chips or OP-amps Bert's analog circuitry fits well into the discrete architecture of the 5-series D/A converter. By carefully selecting each individual component Bert has total control over each single parameter of the analog signal processing path which utilizes technologies developed for the Puralio. The extremely high bandwidth and zero-phase design far beyond the audible range reveal all aspects coming from the digital domain giving the Playback Designs products tremendous image and richness of detail. With its low output impedance the highly neutral sounding amplifier can drive all kinds of wires, therefore minimizing the influence of cable characteristics on the sonic performance. Special care is taken in the linear analog power supply which is totally isolated, giving the four symmetrical output stages the "3-dimensional" characteristics.

Since 2005 Bert has been working also as Head of Electronic Development at ILA in Jülich, a company developing solutions for optical volume flow measurement based on Laser Doppler Velocimetry and Particle Image Velocimetry. This specialized equipment requires challenging analog HF designs, digital FPGA systems and board layout techniques. This unique experience helps Bert in the design of the PCB layouts for the analog and digital circuits for Playback Designs with optimal attention to signal integrity far above the audio range.