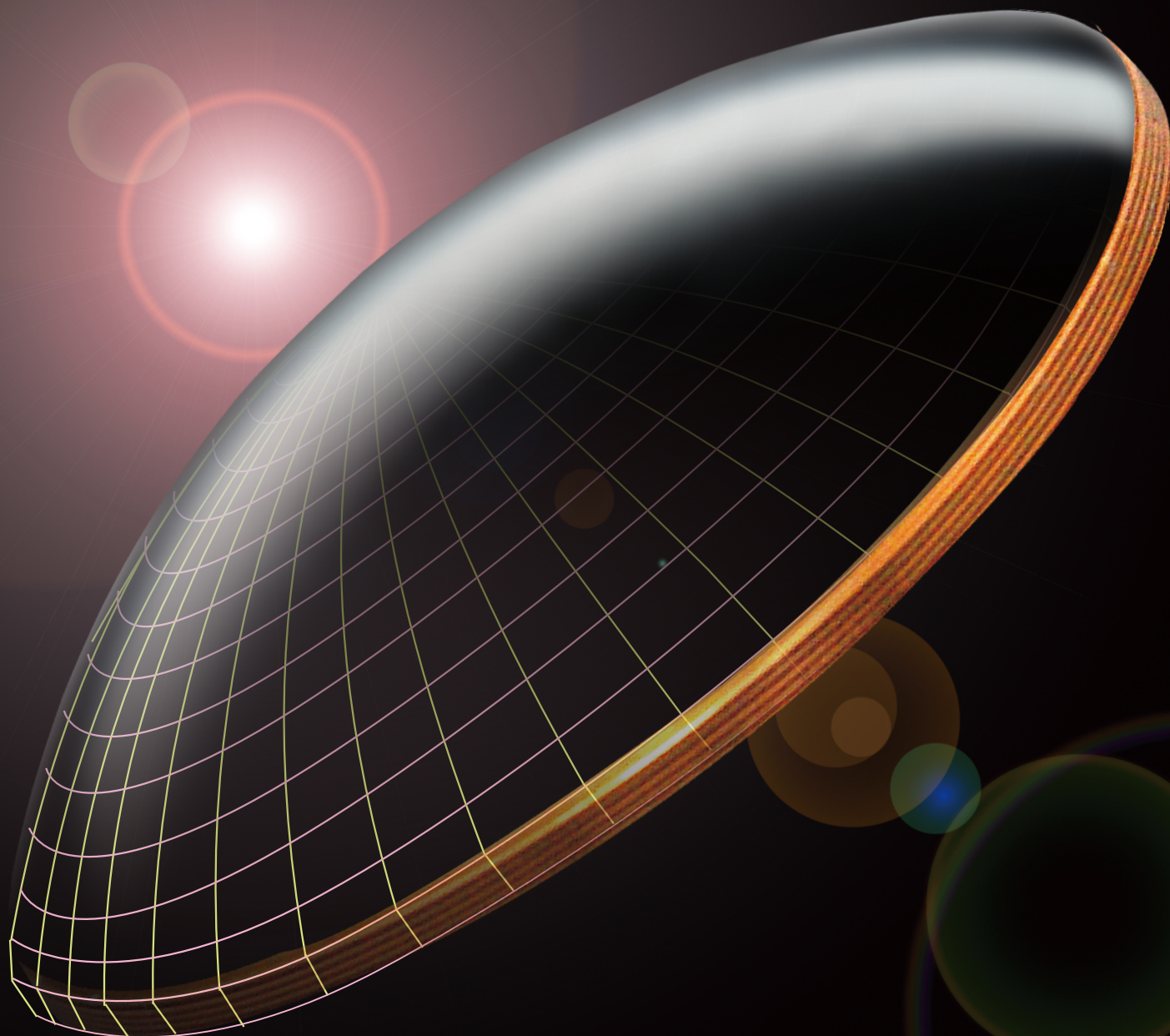


# USHER

## The Diamond Revolution



Introducing The USHER Diamond DMD Technology

## USHER Diamond DMD Technology: Uncovering Key To Superlative Diamond Sound

Because of its extreme hardness and excellent thermal conductivity, diamond has always been considered a potentially great material for loudspeaker diaphragm. Tweeter units with a diaphragm made of synthetic diamond, from the traditional CVD (Chemical Vapor Deposition) method, have been around for quite some time, but many find their sonic performance compromised, due mainly to the relatively high mass of the diamond dome and also to the unfavorable resonance signature of the material itself.

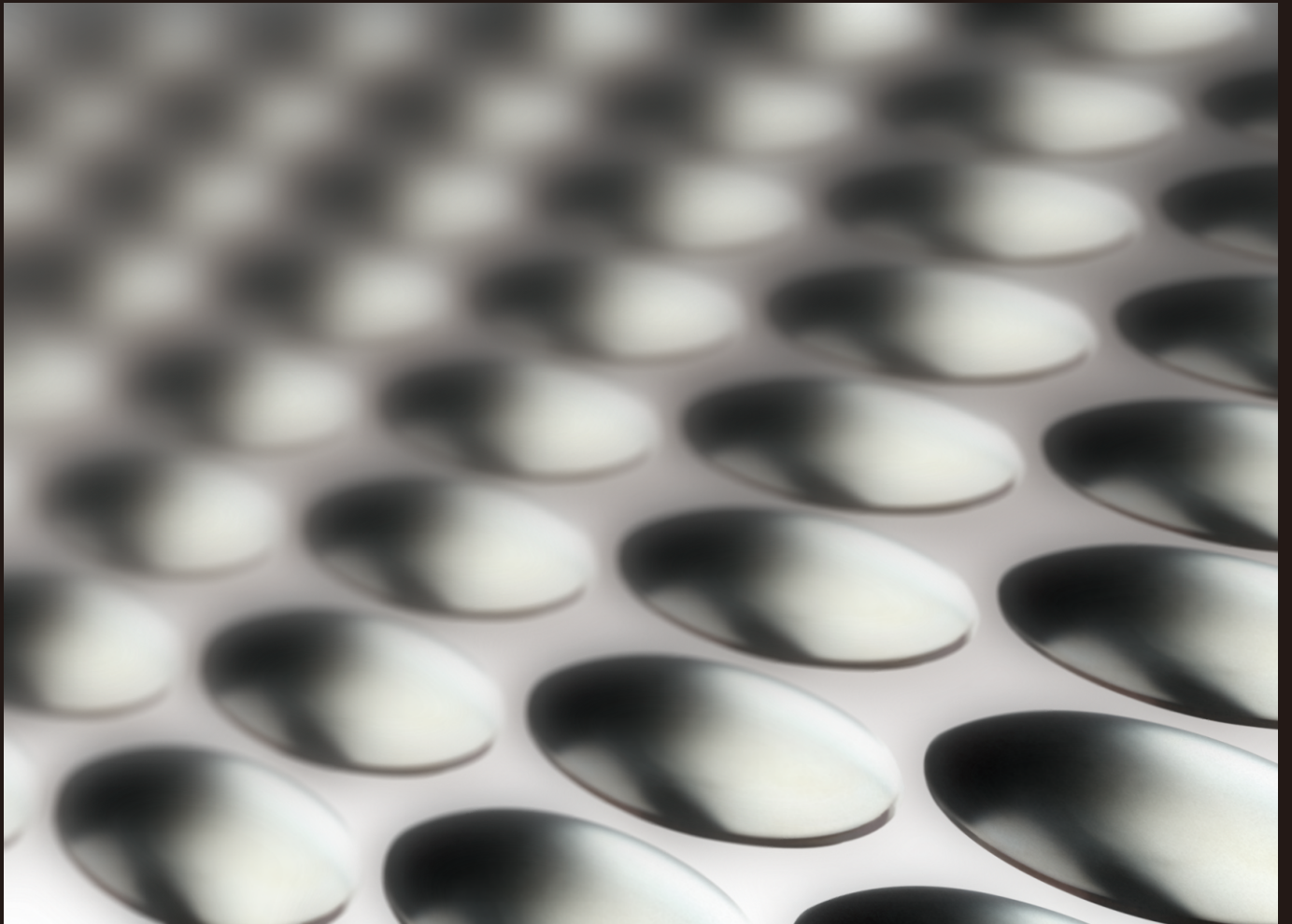
At Usher, we saw the promise of diamond as an ideal diaphragm material, but we also reckoned that it would take some original thinking and an innovative approach to the engineering, in order to bring out the best of this unusual material for application in audio. In typical Usher fashion, we took our time to carefully research and develop our own original solutions for both pure diamond and laminate diamond diaphragms, tackling the issues with both imagination and extensive measuring/listening tests.

Today, years after we began our quest for the ultimate diamond sound, we're pleased to present to the music-loving public and audiophiles the exciting result of our first diamond technology research project, and we believe the key to superlative diamond sound: The new Usher Diamond DMD series speakers.

Employing the Usher Diamond DMD Technology, our Diamond DMD speakers have a new tweeter unit with an USHER Diamond DMD dome. The DMD dome is effectively a diamond dome with a reduced mass and a well-controlled, appealing sound signature, resembling very closely a perfect piston in its behavior. This is made possible by its laminated diamond-metal-diamond structure, which consists of a proprietary metal alloy base layer coated with an amorphous diamond-like carbon layer (pure diamond is carbon atoms arranged solely in  $sp^3$  bonds; amorphous diamond-like carbon has mixed  $sp^3$  and  $sp^2$  bonds to achieve its desirable properties) on both sides. The base metal layer of the Diamond DMD dome tames all the diamond layers' unfavorable sonic traits and brings out the best of both materials.

The true revolution, however, is in the Diamond DMD tweeter's unprecedented micro-dynamics resolving power. The DMD dome's structural integrity makes possible a surprisingly intact and undistorted reproduction of the input signal, which clearly shows in the reproduced sound as a sense of purity and completeness that is at the same time new and familiar: New in reproduced music but familiar in live performances.

Last but not the least, owners of Usher's BE series will have the option to upgrade to the Diamond DMD tweeters at their cost. For details please contact your Usher official dealer.



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A Perfect Mix: An USHER Diamond DMD dome has a proprietary metal alloy base layer coated with an amorphous diamond-like carbon layer on both sides. Pure diamond is carbon atoms arranged solely in  $sp^3$  bonds; amorphous diamond-like carbon has mixed  $sp^3$  and  $sp^2$  bonds to achieve its desirable properties