

Technologies that help JL Dominion d110-Gloss surpass TOP cheap hi-end subwoofers

Impressive performance, extremely low distortion and especially the ability to perform linearly with the main speaker have helped Dominion d110 follow the 'elders', occupying the top position in the low-cost hi-end subwoofer segment.

Referring to JL Audio, a brand with headquarters in Florida - USA, to mention 'super sub' JL Gotham V2 weighing 160 kg, Fathom F112 or E-Sub E112 . are all outstanding subwoofer designs of the company, won many major awards. With a compact size, but impressive performance with extremely low distortion and especially the ability to perform linearly with the main speaker, the Dominion d110 has followed the 'elder', occupying the top position in the distribution. subwoofer hi-end 'soft' price.



JL Audio - America's 'big man' in the audio industry with a history of 45 years

With a history of 45 years, JL Audio is one of the major American audio companies founded by James Birch and Lucio Pronim (brand name taken from the initials of the two founders). Not only known for its hi-end subwoofers, this brand owns a wide range of products that span from home audio, car audio, high-end audio systems for yachts and speakers. Super durable for outdoor sports.



In terms of philosophy, the first JL Audio brand is strong in technology, taking science to lead for top-notch sound along with the sophistication in manufacturing and manufacturing only at its headquarters in Florida - USA. The strength of JL Audio subwoofers is their very high performance, the ability to disappear from space, especially creating linear sound with the main speaker by limiting noise to a remarkably low level.

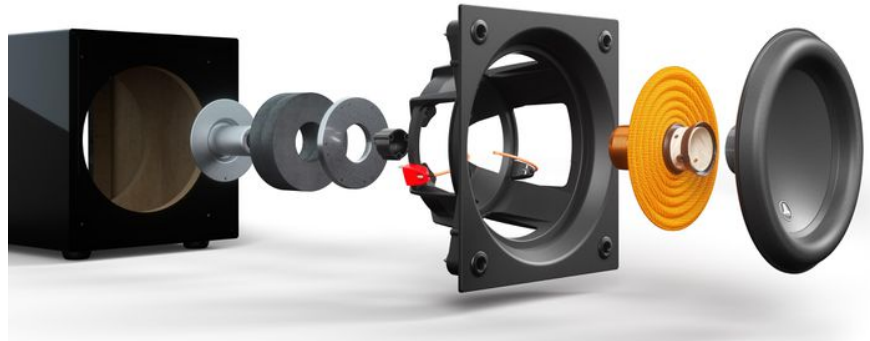
Design JL Audio Dominion d110-Gloss

First, it must be confirmed that the JL Audio Dominion d110 is very popular from audiophiles, videophiles, to music producers and gamers. Despite owning a 10in diameter driver, the Dominion d110 still has a compact size and loads of unexpected bass performance.

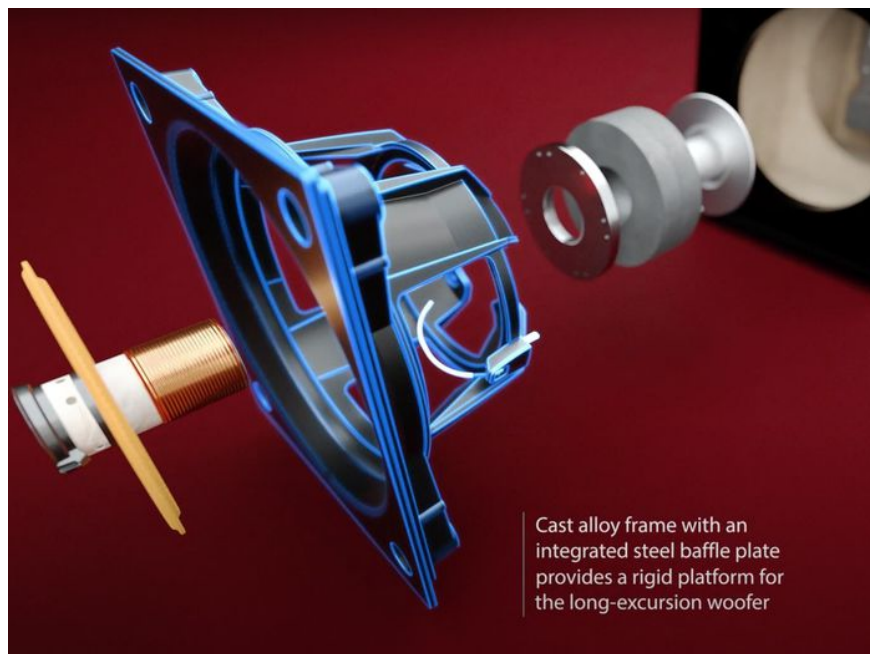


The JL Audio Dominion d110 comes in two finishes, ASH and Gloss, both available in black. The ASH version has a matte black veneer, the d110-Gloss model has a more impressive and expensive glossy piano lacquer finish. This subwoofer has a more compact volume than most subwoofers with the same driver diameter, although very compact like the Dominion d110 has a very solid, sturdy structure and weighs up to 17kg. The

cabinet of the Dominion d110-Gloss has a fully enclosed design, allowing it to be placed close to the wall or hidden. This cabinet construction is extremely vibration-resistant thanks to a clamping position on the front and back.



First, looking directly at the Dominion d110, we will see that there is a very thick aluminum alloy sheet covering most of the front. This aluminum plate does not have to play the role of keeping the driver face with the front of the cabinet, but this is part of the 10in woofer structure, connected to the chassis holding the magnet, spider, driver . This is a pretty unique design and obviously very effective, but comes with high machining costs because you have to cast a very large monolithic metal part.



Next, on the back of the speaker is also a very thick metal plate, which contains all the connections, control circuits and power amplifier blocks. Thus, both the front and back of the JL Dominion d110 speaker cabinet are clamped by 2 metal plates, creating a rigid topology, extremely good anti-vibration. This design also explains why the speaker has a small volume but the extremely deep bass from the Dominion d110 still has very low noise.

Special technologies of JL Dominion d110-Gloss Driver 10in oversized foam border vi?n



JL Audio Dominion d110 has a 10in diameter driver with a special feature of an oversized rim. This remarkable detail is processed by the company from specialized mousse sheets with a thickness of 60 - 70cm, then compressed with high strength down to thin sheets with a size of only a few mm. This very special speaker border design helps to increase the performance of the subwoofer, specifically, the travel of the diaphragm will be longer. In addition, this special mousse border also plays the role of absorbing internal resonant vibrations, helping to stabilize the diaphragm (after moving) at an extremely fast speed. The Class D amplifier inside the Dominion reaches a maximum output of 750W, using a specially designed compact pulse source.

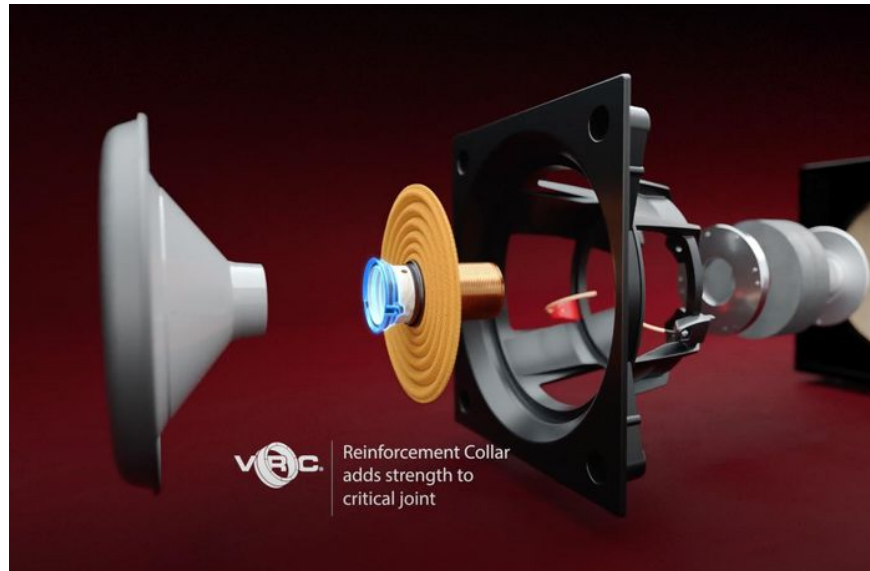
DMA (Dynamic Motor Analysis) technology



DMA is a technology that allows the design of magnets with the ability to provide the most optimal and most effective magnetic force based on the overall analysis of the cabinet, driver material, conductor. With all the

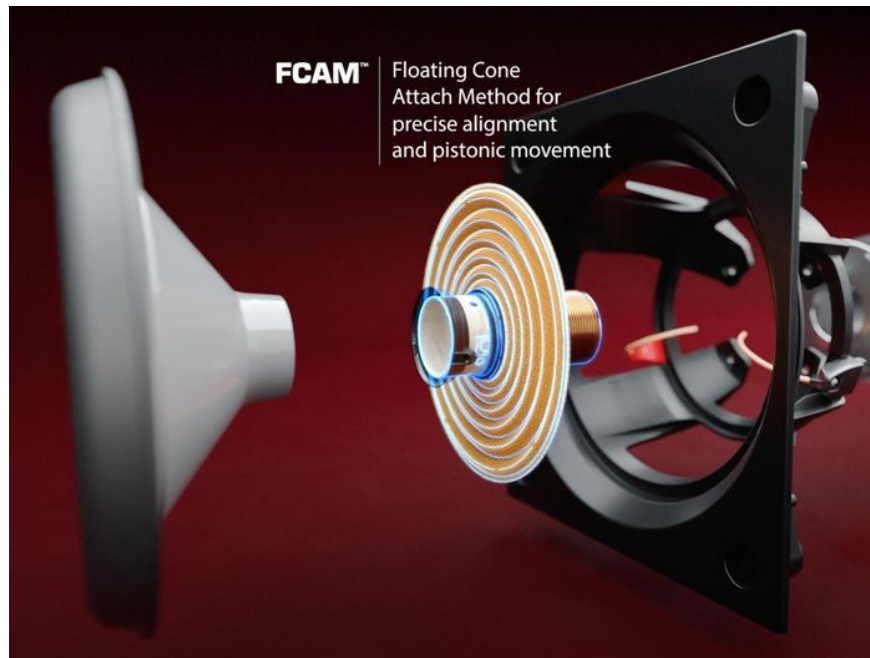
information specifications as well as measurements, the computer will perform finite element analysis and run all the operating models, thereby giving the most optimal designs for each component in the motion system including : magnetic system, magnet pole, diameter, voice-coil length, speaker spider distance.... This is also the technical point that makes the Dominion d110 diaphragm capable of moving extremely wide up to 68mm and still maintaining extremely low noise!

Vented Reinforcement Collar . VRC - Vented Reinforcement Collar



To achieve such a moving diaphragm with such wide amplitude and low noise, JL Audio has developed two separate technologies. The first is the Vented Reinforcement Collar (VRC) structure, which is a link ring made of composite, connecting the diaphragm and the voice-coil head. This structure allows the use of glue to be minimized, limiting discrepancies, interference or damage due to long-term degradation of the glue, which is also a very common error in most subwoofers. In addition, this VRC loop structure has air vents that directly cool the voice-coil, avoiding damage due to thermal overload.

Floating Cone Attachment Method . FCAM - Floating Cone Attachment Method



Along with VRC, FCAM is a technology that helps to limit noise significantly during the operation of the JL Dominion d110. This is the technique applied in the assembly between 3 components, the diaphragm - voice-coil - spider speaker. Engineers at JL Audio designed the most stable and balanced geometry for these links. The effect of FCAM is to help the diaphragm move exactly like a piston.

Experience



We experience the JL Audio d110-Gloss subwoofer in a listening room of about 25 square meters with two pairs of main speakers, Acoustic Energy AE1 Classic and JBL 4312M II. After setting the cut-off point and fine-tuning the phase as best as possible, the Dominion d110 immediately impresses with its performance. The system's bass range is complemented by both power, flexibility and a solid sound background of large stages. With a 10in driver that is not too large, the Dominion d110 still exploits the subwoofer well, giving deep bass and wide background coverage.

For recordings that require high dynamics, you'll find the d110's dynamic response is surprisingly good. It is a combination of driver, sealed cabinet design and importantly, techniques to optimize magnetic force and link sub-speaker components. The dominant advantage of the JL Dominion d110 is to disappear from space. Listeners almost no longer notice the existence of the subwoofer thanks to a linear blend with the main speakers.

You finished reading the article "**Technologies that help JL Dominion d110-Gloss surpass TOP cheap hi-end subwoofers**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.