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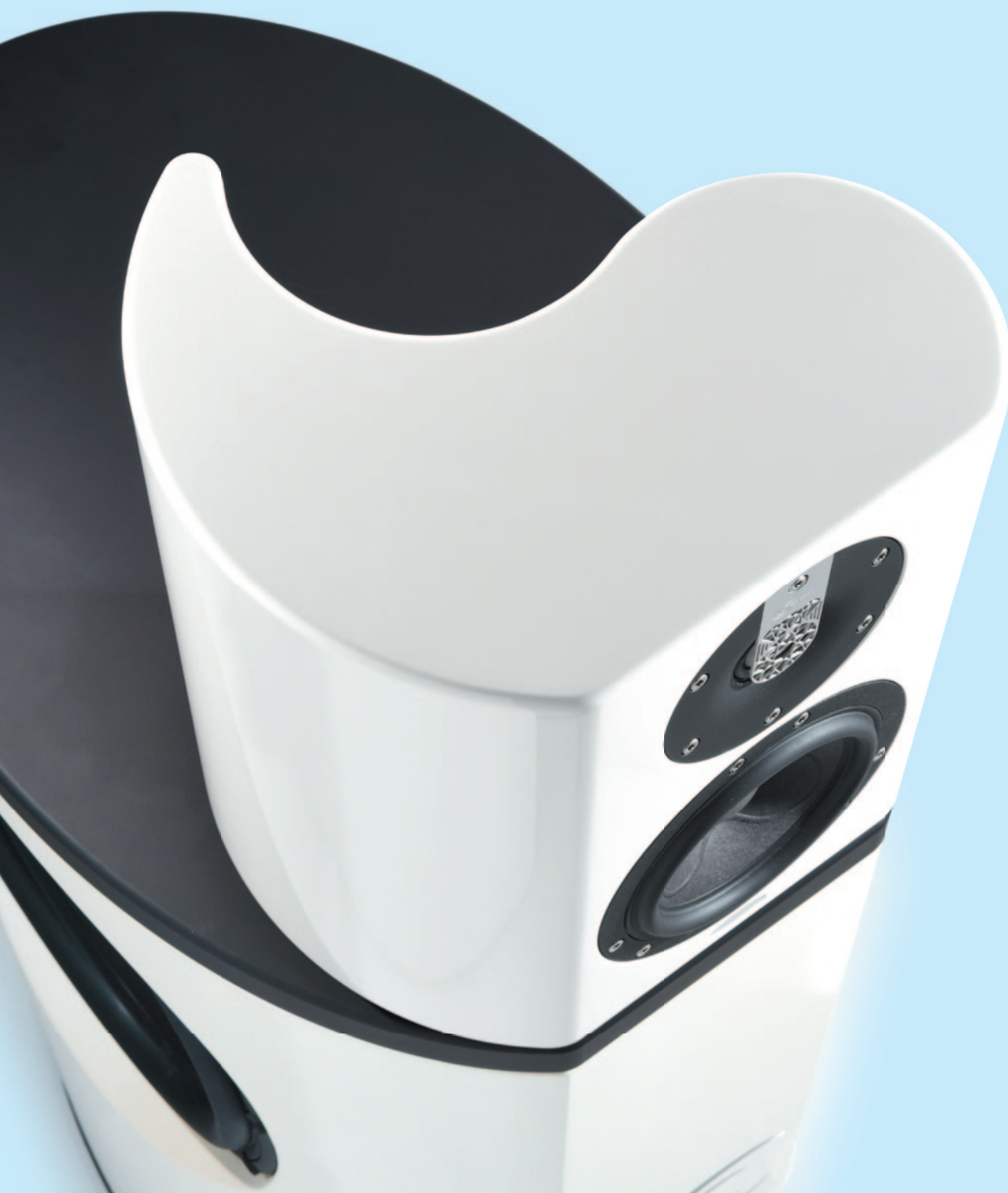
Arabesque Minissimo Diamond
CCDB Subissimo

An Incomparable Combination

Crystal Cable

Arabesque Minissimo Diamond + Subissimo

Text | Lincoln Cheng(大草)



The silver cable expert Crystal Cable has played an important role in the field of Hi End cables. Besides that, with the launching of the Crystal Speakers, the Arabesque and the Absolute Arabesque, Crystal Cable has also taken up another important role in the field Hi End Speakers. Two years ago, after launching the Arabesque Mini, Crystal Cable developed the Arabesque Minissimo. Priced at HK\$120, 000, although not cheap, its beautiful workmanship and outstanding performance still attracted many audiophiles and it was highly ranked by audio magazines all over the world. Since this 'comma'-shaped speaker was well received, Crystal Cable launched a higher model, the Arabesque Minissimo Diamond (AMD) which has a diamond tweeter. And to make the AMD more flexible, the design team developed a sub-woofer unit, the Subissimo to go with AMD, so that it is even more all-rounded.

Minissimo with Diamond

Crystal Cable products always look good sound good; the small AMD and the big Subissimo are no exception. When the pearl white AMD and Subissimo arrived at our audition room, their streamlined shapes and first-rate finishes looked just like two pieces of art.

Let me begin with the AMD. Basically, its comma-shaped box has the same construction as Minissimo. Putting a



Arabesque Minissimo Diamond Specifications:

■ Frequency Response : 47Hz - 50kHz ■ THD : <0.18%(220Hz - 22kHz) ■ Sensitivity : 83.5dB@2.83V ■ Impedance : 8Ω (7Ω min.) ■ Size : 300W × 250D × 290H(mm) 960mm(with stand) ■ Weight : 25.5kg(with stand) ■ Retail : HK\$148,000(pair) / HK\$158,000(pair, with stand)

Subissimo Specifications:

■ Drivers : Double 13" paper cone ■ Built-in amplifiers : 2 × 600W ■ Lowest frequency : 16Hz (-6dB) ■ Size : 405W × 580D × 815H(mm) ■ Weight : 72kg ■ Retail : HK\$98,000(one piece)



mixture of aluminum alloy sheet and high density resin into a cubic mold, eliminating any bubbles in the resin by high frequency oscillator, and finally, after cooling down, finished with a CNC machine. Since aluminum alloy and resin have very high damping factor and resistance to vibrations, the box is super robust. Moreover, there are no parallel surfaces inside the enclosure, standing waves and resonance are practically zero. AMD has adapted a custom-made SEAS 26mm diamond dome tweeter with silver coils, HEXADYM neodymium magnet and SONOLEX diaphragm having a frequency response up to 50kHz. A laser-cut grille is placed before the diamond diaphragm. It not only looks beautiful but also provides good protection. The grille is designed based on complex calculations so that it is practically transparent to the high frequencies. The mid/bass units are carefully matched (tolerance < 0.3dB) Scan-Speak Illuminator series 150mm Neodymium magnet, sandwiched paper cone. The crossover network uses big air-core inductor, non-inductive silver oil capacitors and 5-inch long pure carbide resistors. All conductors in the box are the flagship cables, Absolute Dream. The bi-wire speaker terminals are WBT NextGen Silver.

The Slim Giant

The Subissimo is quite big: 450(W) x 580(D) x 815(H) mm, but the front plate is only 170mm, same width as the AMD. It is bent outside in a curve and rounded to the back. This streamlined design looks slim, and is presentable with the comma-shaped AMD.



Gabi Rijnveld, president of Crystal Cable, has a special elegant taste in the external design of her products. The 72kg Subissimo reflects how strong it was built. The enclosure is made with laminated HDF, while the top and bottom plates are 30mm thick aluminum plates. There are two 13 inches Scan-Speak sandwiched paper cone subwoofer units, one on each side, coupled together with metal rod to eliminate vibrations of the enclosure. Each unit is driven by an internal 600W amplifier. At the bottom of the back plate, there is another plate on which, in addition to the IEC power socket and power switch, are three input terminals including XLR, RCA and speaker inputs. Since Subissimo can be used singly, these inputs are all stereo pairs. If two Subissimo are used, only one channel should be connected. If the speaker input is used, the RCA should be short-circuited by plugging in the special plug which come with the speakers. On this plate there is also a selector for the cut-off frequency [from 35Hz to 70Hz, (12dB/octave, 5Hz/step); 35Hz, 70Hz, 120Hz (24dB/octave) and Flat for active electronic crossover.], a volume control, a subsonic (10Hz) switch and 0°/180° phase selector. There is also an input sensor to turn on/standby so that the power switch can be left on all the time.

Eye Catching

There are 2 versions available; one includes a custom-made stand and the other with 4 little feet and a piece of rubber at the bottom. We have the latter. When using it with Subissimo as one set, we have to take away the 4 little feet and put it on top of Subissimo, so that the hole



at the bottom could be completely blocked. Then turn the crossover frequency switch to 70Hz@12dB or 24dB/octave (or any other frequencies, according to the room acoustics). Finally, fine tune the subwoofer output. Now AMD has turned into an all-rounded speaker with a frequency response of 16Hz-50kHz. Our audition room has good acoustic and good proportion. When the combinations of



AMD + S are set up, they are really eye-catching! I thought they would look like monkey sitting on an elephant before setting up, I couldn't imagine they could be so harmonious!

I'll introduce our gear first. They included a 4-piece dCS Vivaldi SACD/CD system, Dan D'Agostino Momentum preamplifier, Audia Flight Strumento no.8 mono block power amplifiers driving the AMD, while the 2nd pre-out of the preamplifier was directly connected to Subissimo through XLR. The cross-over frequency was set at 70Hz@12dB/octave, and the volume at 3 o'clock position, with 0° phase difference. It was quite easy to find the ideal locations for the combinations.

For combinations like this, the most important thing is the frequency coherence. There should be no seam between mid-bass and ultra-low bass. But neither should they be too heavy, it would be adequate as long as you can feel the ultra-low. It is completely different from the heavy punching of home theatre.

Pleasant Surprise

AMD is a pair of standard bookshelf speakers. It has no box sound and possesses all advantages of bookshelf speakers, namely, accurate mouth shape, good imaging and disappearing in the sound field. Its diamond tweeter and the high quality woofer can produce clear and transparent sound, full of harmonics and with distinct gradations. But when AMD is coupled with the sturdy

Subissimo which is equipped with a pair of vibration-eliminated 13" sub-woofer units, all advantages remain with enhanced textures, images are sharper, vocals are more lively and emotions are better expressed. What a pleasant surprise! As to the basses, they are much better in both quantity and quality, bouncing with good velocity. The whole sound picture is very stable. In big scenes, the sound is full of momentum; and when playing small ensembles, there is a strong sense of presence. These effects are within my expectations, only much better!

A Higher Level

The most important things when replaying the recital of violin and piano are fidelity and proportion. When playing Elgar's "Salut d'amour" from the CD "Heartbreak", Elissa Lee Koljonen is full of emotions, with very delicate phrasing, very touching. Her bowing and vibratos are so real as you could actually see it. The texture and harmonics of the violin are lively and the tone was as beautiful as could be. Robert Koenig's accompaniment is perfect, bright but never over-emphasized, bass is full but not too much. The body of the piano is like-real, with very good ambience, as if sitting in the New York Troy Savings Bank Music Hall. A correctly adjusted Subissimo can bring the superb reproduction power of the AMD to an even higher level.

Spectacular Reproduction

It's been some time when I last listened to "The Perfect Sound 2014". Well, I am not boasting, but I was still moved by the disc! When Wong Ka-Kui sings "Lovers" with his unique voice, it really makes me sad. When Katherine Jenkins sings "Angel", I am taken away by her sweet and elegant voice. Both singers are very vivid through AMD + S, with true-to-life mouth shapes and holographic images. I am 100% satisfied. When playing the 4th movement of "Pines of the Appian Way", I can hear the tympani from far behind the sound field and the faint bassoon in the introduction. This 1-1/2 minute passage is a severe test to the speakers. AMD + S not only can bring out this very small signal, but also all the minute details. I can hear every instrument clearly, showing they have very strong analytical power. When it reaches the part when the Roman troop are getting nearer, the strings, brasses and woodwinds join in and the atmosphere are getting more and more stimulating. The sound pressure from AMD + S is rocking the audition room and at the same time, I can still hear every part of the orchestra clearly. What a splendid movement!



We have also tested the Arabesque Minissimo Diamond with its dedicated stand in our audition room. Its sound effect was highly praised. Its open highs, clear mids, good textures and full bass are out of our expectations. An ultimate selection in bookshelf speakers!



A Final Word

For bookshelf speakers, AMD is not cheap. But in a relatively limited space, it is an outstanding pair. If you can afford a bigger place, adding the Subissimo will certainly surprise you. Crystal Cable is not only an expert in cables, but its speakers can also rival with any famous brands.



Seamless Joints

Text | George Chung(鍾啟源)



Although the Arabesque Minissimo Diamond and Subissimo from Crystal Cable are respectively main speakers and subwoofer units, they are developed at the same period of time. They would perform best when used as a whole set.

Both units are developed with the help of the computer software Comsol, resulting in a cabinet made of a mixture of special resin and metal. In addition to various colors and an advent-garde profile, it can absorb and suppress mechanical vibrations. This is vital to the driving units of Subissimo which would continuously have vigorous motions. The vibrations of the cabinet not only eliminate part of the sound wave energy, they also make the bass blurry. To see how effective this is, I touched the walls of the Comma-shaped AMD and the barrel-shaped Subissimo when playing some heavy percussion pieces. I could hardly feel any vibrations from both cabinets and that showed the special resin cabinet worked!

Seamless in Outline

When AMD is placed on Subissimo, the rubber pad block the port at the bottom of the AMD, turning it from bass-reflex to acoustic suspension type, and resulting in a change in acoustics and increased pressure inside the enclosure. That was what I worried about before putting them together. But then I found I worried too much, there was no sound contamination because of too much pressure. When listening to "Drum Poem", there was no overloading sound; at about 1:30 and 3:30, when the drum was lightly beat, there were also very weak collisions between the drum stick and the side of the drum. These sounds were precisely reproduced by the speaker combinations. Besides precise pin-point imaging, distances and proportions were so right! Dynamics between faint and strong drumming were stunning with a poetic style which attracted me to go on listening to "Ambush from all Sides" and "Eight Harmonies". The sound of the Pipa in "Ambush from all Sides" was sharp and crystal clear, lively and full of tension. "Eight Harmonies" was meticulous and flawless. AMD + S reproduced the reverberations and all details

of the cymbals without any reservation. When they were hit, the resonance and friction sound on their metal surfaces were vivid and pellucid. The drums at two sides had definite positions, true-to-life imaging, and very big dynamics. When the drummer beat the drum with the drum stick and the cymbal, the different effects were clearly reproduced. AMD + S could also show the high frequency extensions of the brass cymbals, revealing its super high analytical power.

“Eight Harmonies” was performed by one single musician. The sound field was stereophonic but not as deep as an orchestra. If the sound field was too deep, it actually revealed the inaccuracy of the imaging of the speakers. AMD + S had shown a reasonable sound stage: percussions on two sides were wider while the depth was only within an arm’s distance. The heights of gongs and hand-held cymbals were also accurately reflected.

Revolutionary Design

The way of connecting the sub-woofer in AMD + S is completely different from the traditional practice. As usual, the AMD is connected to the power amplifier through speaker cables, but the sub-woofer also needs to receive signals through XLR or RCA cables. Traditional sub-woofer uses a powered crossover network, this is not ideal for smooth frequency linking between the main and sub-woofer. Crystal Cable uses an inactive cross-over to attain better a linking. It works with a cross-over network with a 5dB step from 25-70Hz, 12dB/octave and selectable between 35Hz, 70Hz and 120Hz, 24dB/octave. In addition, there is an Auto or Off subsonic control. The design is to eliminate over-emphasized ultra-low frequencies from affecting the clarity of the mids. Also, S adds a pair of 13” back-to-back driver units coupled with a metal rod, greatly reducing the energy fed back to the cabinet. The curving outwards



sides lift the drivers away from the floor. This also helps reflection of sound which will lead to unnecessary increases in bass strength. They are driven with separate 600W amplifiers so that coloring and ambiguous problem no longer exists.

Seamless in Sound

The vigorous drumming is not only reproduced by S, but by both AMD and S. Listening to such works can expose if the frequency linking is perfect. Now the heavy drum beats come very steadily from the center, without drifting to either side. All other percussions are rock steady at their respective positions. What a 2.2 satellite combination!

Then I change to the Chandos SACD “Swan Lake” played by the Bergen Philharmonic Orchestra under the baton of Neeme Jarvi. The large-scale orchestra is also perfectly played by AMD + S. Track 21-22 in Disc 2 can best reflect the meticulous and emotional expressions of the system. In Track 21, when the identity of the black swan is revealed, the music turns feverish. The music from AMD + S is of high density and shows the abrupt change in mood vividly. When it comes to Track 22, the music begins with the harp from the back on the left, with the melodious woodwind, it was heavenly music!

Turning to jazz, be it Adele’s “25” from UHQCD “Saint Mic”, or “Just the two of us” by Caecilie Norby & Lars Danielsson, or Dire Straits’ “Love Over Gold”, or “Burgundy Heart” by Koji Tamaki, they are all splendidly replayed. The strings of the acoustic guitar are touchable, the electric guitars are hot, the bouncing of the double bass, the lifelike vocals, all are perfectly captured and reproduced. The sound is seamless and very persuasive. It touches the heart. 囍

Stylish Look, Refined Sound

Crystal Cable

Arabesque Minissimo Diamond + Subissimo

Text | Paul Leung (梁錦暉)

Adding a pair of sub-woofers to bookshelf speakers is not new to me, but adding them to one of the most high end speakers is very unusual. Some audiophiles think sub-woofers are used only in Home Theatre system, and that is absolutely a misconception.

The cover story of this issue, the Arabesque Minissimo Diamond + Subissimo(AMD+S), is an interesting example. It looks stylish, difficult to link it to cultural and noble sound. When I listen with my eyes closed, a meticulous picture emerges in my mind. The mouth is focused and solid; vocals and instrument have very vivid profiles; and this is the strong point of the diamond tweeters. Listening to "Wishing me Happiness" from "The Perfect Sound 2010, Choi Qin's magnetic vocal is very mellow, the small changes are clear and natural, background accompaniment spreads to both sides, much wider than most speakers of similar price.

In "The Great Gate of Kiev", last track from the same disc, Subissimo brings out its power. The bass from bass drum and double basses is stunning and authoritative. This piece is not easy for most speakers. The bass must be able to go deep down to the lowest frequency and be massive, and have a fast enough velocity. AMD not only meets this demand easily, it also gives a seamless continuation

between low and ultra-low frequencies. Such connection needs careful adjustments and is done by selecting the optimal volume, phase and cross-over frequency. If these are well chosen, good performance can be attained under different listening environments.

To test if the speed of AMD's low is in line with Subissimo's ultra-low, I played Kwok Wai Chin's "Xiang Ren He". I found out that how clear and clean the drum skin vibrates and how hard the drum is hit are still dominated by the mid-low driver of AMD, while Subissimo is responsible for 70Hz and below. Together, they can produce breathtaking scenes. At first, I doubted if the bass would be too slow when seeing the 13" on the two sides of Subissimo, but, in fact, bass is just good with the right speed and details.

If I am asked what kind of music touches me most on AMD + S, I would say one violin plus one piano, "Heartbreak", for example. The first piece, Chopin's Nocturne, the violin is so elegant and refined; the piano is transparent in a dark background. I believe this life-like effect is not only due to the diamond tweeter, but also the design and material of the cabinet and the cross-over network. Music becomes passionate and humanistic.

