

Carbon Fiber Tweeter and Mid/Bass Drivers

Acoustic Energy

AE509 Floor-standing Loudspeaker

Established in 1987, Acoustic Energy again became the 100% British owned loudspeaker brand in 2017. After 2 years, nowadays, AE switches to utilize their newly developed carbon fiber tweeters and mid/bass drivers. This is not a surprise; the real surprise is its unique design, and it is from AE that developing the carbon fiber dome tweeter diaphragm. It is also an attempt in the industry to make such a bold trial design for the brand. When both the tweeter and mid-bass drivers utilize the carbon fiber which is very stiff, capable for high-speed movement, high damping characteristics, harder and lighter than aluminum, and the great sound performance is really expected.

Carbon Fiber is Spur

On the AE509 Floorstanding loudspeaker, there are a 25mm carbon fiber dome tweeter and two 125mm carbon fiber mid-bass drivers, in a MTM arrangement to enhance the high frequency directionality, so as to make it a lot easier for the positioning. The changes on the AE 500 series, of course, it is not just the drivers materials; underneath the elegant high gloss finish, the cabinet utilizing a thick 18mm wood board which is not only thick; also not just a simple MDF material, but it is the unique resonance suppression resonance composite board (RSC) developed by AE, adopting from the Reference Series. As for the bass reflex port, it is located on its upper back. There are also changes on the crossover network. Instead of the traditional snap-in components, the AE509 crossovers use high voltage polypropylene film wound capacitors and air core inductors at critical locations for optimum dispersion through a smaller acoustic source size within the crossover region.

The cabinets finish options are either Black or White in high gloss piano finish or American Walnut wood veneer finish. There are two solid Aluminium bars supplied to ensure rigid floor-coupling and maximum stability. They should be locked into the bottom plate with screws while the longer one on the front and the shorter one at the back.

Not Difficult to Drive

According to the specifications, the frequency response of the AE509 is 32Hz to 28kHz; sensitivity is 89dB; peak SPL is 115dB; 6 ohms impedance. The AE509 is suitable to be placed away from the back wall. Of course, if you want to have stronger and deeper bass, you may move it closer to the back wall. They do not need to be toed-in too much, as it

would narrow the soundstage. Toe-in approx. 20 to 30 degree is good enough, the imaging is already very focus and clear.

To use the Electrocompaniet EMC1 MKIII as the source player, and the British Audiolab 6000A Integrated Amplifier; the design of the Audiolab is to have the sound character of thick & pure, smooth high frequency, a bit rich in the mid-low frequency and very musical, driving the AE509 as if it were driven by a tube amplifier. The overall sound is pretty detailed, smooth & rich; the mid-low frequency is thick with good body but still feel the fast transient response. Originally, I estimated the sound character of the AE509 might be changed to be just fast transient response from its previous sound character of thick body & precise. My estimation was wrong - the AE509 still emphasizes the traditional British sound, very detailed and smooth; pure & thick, rich mid-low frequency and very musical; the only difference is its transient response is faster than before, the details in the music are clearer and the vocal is more transparent with rich body.

Thickness and Warmth

AE509 does not change its brand image in the tonal style, the sound is still familiar with the thickness, warmth, good texture in mid & low frequency, agile rather than high speed. The factory's pursuit of sound has not changed, twisted or switched – AE is still AE. When the British brand meets another British brand, there is a sense of moisturizing feeling, there is humidity, warmth, vivid, charm and strong feelings; especially the vocal that is full of humanity. Listening to "AGA Ginadoll Concert", her voice has got rid of her tenderness/childish but instead it has got a bit of maturity. Playing Sandy Lam's "In Search of Lost Time", her voice expressed her femininity more intense and charming; the rich and thickness of the cello, the music is warmth and rich, it just felt like couple in love, and also like a family reunion. There is a lot of sensation as if listening to a tube amplifier system, and the sound is so rich and sweet but it is a bit faster transient response than the tube amplifier!

The Love of Tubes

I also quite like the sound driven by the American Prima Luan EVO 300 tube amplifier. The density & sweetness of the vocal is richer, adding a classical beauty. Listening to the recording in 2012 "Musica Nuda", the cello is now present, the string sound is strong & rich, and there is no lack of elasticity or vividity. There is also a rich sound of the strings that will not stick together, accompanied by Petra Magoni's sweet singing, it is so touching, beautiful & charming music reproduction. Especially for those who love listening to the slow vocal music, it is a fascination!

Searching for Balance

After listening to the AE509 for more than half a day, I was wondering if its performance can be even more hearty? As we do not have any German amplifier in hand, I found an AV receiver, Marantz SR6012 to connect with it. Surprisingly, this AV receiver was actually qualified to drive the AE509. Of course, it's not qualified to replace both the integrated amplifiers, but I discovered an ideal direction for the mix and match.

Surely, Acoustic Energy is a real British brand with the British sound (the new British sound is kind of fast transient responses, and Cambridge Audio represents it). To match the AE590 with the fast transient type of amplifier, it can help to get the overall tonal balance to be more balanced, especially the vocal. Listening to the AGA again, the recording of this CD was done in 2016, her voice is appeared with a little tenderness, just like a young girl's breathe being hurt from the first love. The vocals of Sandy Lam and Petre Magoni also return to the beauty of the clear and transparent musicality. Listening to the AE509 reproducing the female vocal has fascinated me, making me keep listening to it again and again.

Of course, the AV receiver is not an ideal amplifier for 2-channels playback, but it proved that it is the correct direction. For the beginners or audiophiles with tight budget, the 2-channel Marantz amplifier is definitely the good match. Another good match would be the Cambridge Audio integrated amplifier representing the new British sound. More ideal and more high-end choices for the serious audiophiles, I can think of the German brand, Octave tube amplifier or the AVM transistor integrated amplifier/ All-In-One multi-function system. According to the past experience, British products match well with German product!

Listening to "Blue Coast Collection 3" – Jonny Colorade and Wicked Game, under the reproduction of the well matched tonal balance system, the female vocal is sweet and clear, the body and juice, the spirit and the elegance coexist, charming and dynamic. I also played "Alexandre Tharaud BARBARA", Dominique A, Camelia Jordana, Juliette are my favorite artists in this album, the sweet vocals, the rich feelings, the voice really made me feel intoxicated. Moreover, the emotional piano music played by the pianist, Alexandre Tharaud, was particularly touching! He is no doubt a great musician with lots of emotions.

I can't stop listening. I have to listen to Stacey Kent's "Raconte-moi" – Les vacances au board de la mer. People looking for pear and leisure in the journey, and the beauty, just like enjoying the calm sea, or just like enjoying the real painting of Van Gogh's "Starry Night"! Listening to the 2V1G's "Tempting Heart", I finally cried. Listening to it, there was

no heart pain, but the maturity of seeing through love. Listening to the AE509 playback the songs with the rich feelings, it's so touching as if the feelings came into my bone marrow, let me unforgettable!