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## In-Depth Reviews:

**Akai MAX49 USB/MIDI/CV Keyboard Controller**

**Eve Audio SC205 Monitors**

**Moog 500 Series Ladder Filter**

**Royer SF-2 Active Ribbon Microphone**



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BY LORENZ RYCHNER

There is something compelling about perennial pairings: For every Romeo there is a Juliet; we hear Lennon and think McCartney; we see Adam and look for Eve. And so it came to pass that Roland Stenz, co-founder, shareholder and CEO of Berlin-based ADAM Audio left that company in 2010 and founded Berlin-based Eve Audio. In very short order Eve Audio has brought to market no fewer than eight speaker models and four subwoofers!

## Eve Audio SC205 Monitors

### More than meets the eye

The active bass-reflex SC205 is the second-smallest monitor in the Eve Audio lineup (the smallest is the SC204). It weighs 11 lbs. and measures just under 7" x 11", with a depth of 9.17". SC stands for Silver Cone, the name that Eve Audio chose for its woofer; 205 means a 2-way design with a 5" woofer.

As you peruse the descriptions at [eve-audio.com](http://eve-audio.com) and begin to read the owners' manual, it quickly appears that there is much more to this box than meets the eye. But before we dig into the innards, let's look at the front and back.

The fascia is visually dominated by a shiny metal strip that goes across the bottom, showing a company and model logo and a control knob. The woofer has no grille, and the tweeter has no waveguide; the tweeter is protected by a detachable metal grid that is kept in place magnetically. The manual instructs the user in the grid's exact placement—our review units had the grids in place already.

The tweeter is of the folded-ribbon kind (just as are the tweeters on the ADAM Audio products)—adapted from a technology that goes back to physicist Oskar Heil who, in the 1960s and early 1970s, brought about a method of using a folded ribbon for a high-frequency transducer, which he called AMT (Air Motion Transformer). While a regular "piston-action" loudspeaker moves the air and thus produces sound by pushing and pulling a dome or a cone, the ribbon expands and squeezes its diaphragm, in a linear manner. This means that a much larger surface is involved in the sound production. As a result, and all else being equal in a successful design, this has the potential for smoother, more open and extended high end, fast and accurate transient response, and thus a lack of smearing and stridency in the high end.

Across the top of the cabinet's rear runs the narrow bass port (the tuned frequency is not stated). In the lower half sits the On/Off switch next to the IEC AC cable socket, accepting voltages from 100–240 V. There are two analog audio inputs, both listed at 10 kilohms impedance, an unbalanced RCA and a balanced XLR. Both can be used simultaneously; their signals will be summed.

Three recessed DIP switches are labelled Volume, Filter, and Not Used. They each have two positions, Fixed and Variable, and that commands further investigation.

### Volume control

As you take a closer look at the control knob in front, you see that it is surrounded by a ring of tiny yellow LED dots, and there is a circle of faint markings, from -5 at roughly the 10 o'clock location through zero (at roughly 2:30) to 3 (at roughly 5:30). The zero position reflects a level of -10 dB, so right away you know that these numbers don't equate with actual dB values—more in a moment.

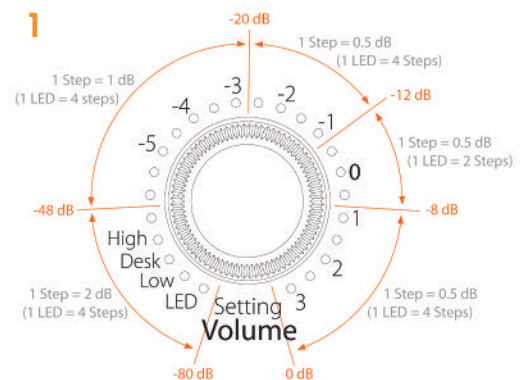
There are four ways or modes to have the LEDs reflect your chosen volume setting. One mode lights up all LEDs of the ring, brightly, up to the point of your chosen setting; another mode lights them up only dimly; a third mode lights up only the single LED right at the point of your volume setting and does so brightly; the last mode does the same as the third but lights up the single LED only dimly. The dimly lit LEDs are hard to see in a brightly lit room, but if your darkened studio



makes do with mood light from, say, a lonely lava lamp, the dim settings may suffice.

As you turn the knob you feel many more clicks than you see LEDs. So what does an LED mean in terms of dBs of loudness? The answer lies in the diagram shown in Figure 1. Not only is the knob not linear, but just how it responds to your moves varies across the available range.

Let's assume that the current display mode is that of the ring of brightly lit LEDs reflecting your chosen volume setting. If, for example, your LEDs are lit up all the way to the marking of 0 (zero), and you turn the knob just a little in either direction, one



knob step or click up or down will make a change of 0.5 dB, and it will take two such steps to fully light up or turn off the next LED. If, however, you make a knob move by a single step elsewhere around the dial, it will mean either a change of 0.5 dB or 1 dB depending on just where on the dial you are, and there will be four steps available before the next LED fully lights up or goes out.

We have recently reviewed active monitors where the volume knob had no calibration markings, making it just about impossible to adjust both cabinets exactly the same. Well, the SC205 is the opposite—with such fine control on the knobs, you can be absolutely sure that all of your monitors are *exactly* matched.

You may never have a need for such fine calculations and calibrations, but if you wish to finesse your monitoring levels in conjunction with your audio source and possibly against some measurements taken at your listening position, and you want to make sure nothing and nobody disturbs your settings, you can then lock your setting in by moving the Volume DIP switch on the rear of the cabinet to “Fixed”.

The way to select these display modes: Push in the knob, turn it to light up the single LED against the letters LED (bottom left), push the knob in again, turn the knob to cycle through the four choices, push the knob to confirm your desired setting, and wait a few seconds for the circuit to reset. Now the knob is functional again as the volume control.

## Filters

It turns out that this knob in front is not just a volume knob. Look again at Figure 1—next to the four LED dots in the most counter-clockwise location, at bottom left, you can see the faint markings High, Desk, Low (and LED, which is the volume display mode selector we just discussed). Eve Audio stresses that these filters are included to help the user make the most of an acoustically flawed room and setup, and I’ll bet that this rings a bell with most readers...

To select and adjust these filters you do what you did when selecting a display mode, you push in the knob and select which filter you wish to adjust. Your options are as follows, as adapted from the manual:

The Low-Shelf Filter allows you to boost or attenuate frequencies below 300 Hz in 0.5 dB steps, as shown in Figure 2.

The High-Shelf Filter allows you to boost or attenuate frequencies above 3 kHz in 0.5 dB steps, as shown in Figure 3.

The Desk Filter has two functions. When turned down it acts as a narrow-band eq set to 180 Hz. The reflections of mixers and similar surfaces usually result in the boosting of low mids. With the Desk Filter you can lessen this effect by turning down the filter gain. When turned up, the Desk Filter also works as an eq but this time set to 80 Hz. This allows you to give more punch to the lower frequencies. See Figure 4.

You can even combine the low and high filters to affect the midrange, either by attenuating it (creating a smiley curve) or by attenuating the lows and highs, leaving the midrange to stand out. See Figure 5.



# Eve Audio SC205 Monitors

## REVIEW



Are...*The Piano Players*. I think Ray would have liked the way his bass came across. I certainly did. Within the limitations of a 5" woofer in a cabinet fascia that's smaller than an 8.5 x 11" letter, this was excellent bass reproduction. It's not about brawn and heft but about depth with subtleties, and Ray Brown's

playing has oodles of those—I heard them all.

I was glad to hear bass with clarity, neither wimpy and thin nor boomy and pillowy, just well defined and balanced. The same goes for the low end of many other tracks I put up, from bass guitar to orchestral bass sections (famous low-end passages like the intros to Stravinsky's *Firebird Suite* and Bartok's *Concerto for Orchestra*), to electronic basses and New Orleans tuba basses like that of the gregarious *Soul Rebels*. All were a success, although a dedicated hip-hopper trying to blow away a client or producer may want to shop for a sub—the SC205 isn't built for such exaggerated demands.

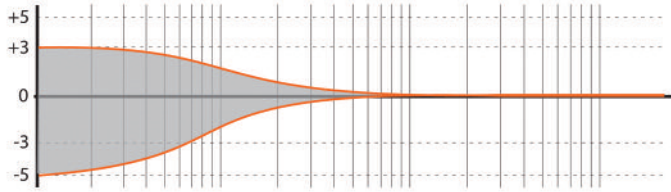
I couldn't detect anything about the bass port—and not just because it fires towards the rear, it was as if it weren't there, even when I goosed the bass with the Low filter *and* the Desk filter (not recommended for accuracy, but if it floats your boat...).

The midrange spoke very well; singers stood out when they were mixed to stand out, and the many piano recordings I put up showed their different tonalities and nuances effortlessly. The same was the case with bowed strings, where subtleties of attack and resonance can easily get smeared on lesser equipment. Ditto with acoustic guitars and with woodwinds.

The highs were silky only when that was the intent of the recording—if you need to hear a harsh track, the accurate ribbon tweeters will deliver it harshly, there is no tendency towards "prettying up" the sound. I have some unfortunate cymbal samples from a library that long ago faded away, and the badly edited spitty and phasing cymbals came across as just that—spitty and phasing. But the glorious drums and cymbals of many a well-recorded acoustic jazz project, like those of Dave Tull from AIX's Steve Hufstetter Big Band disc? They sounded, well, glorious.

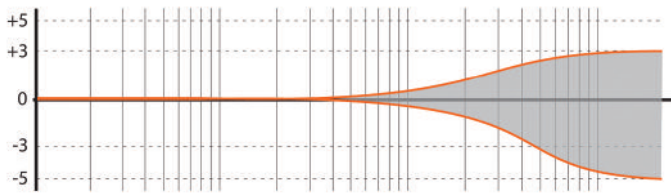
### Low Filter

2



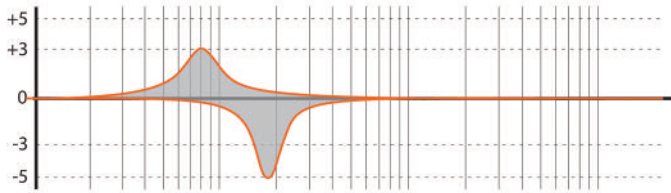
### High Filter

3



### Desk Filter

4



While we mention the manual, it behooves us to salute Eve Audio for going the extra mile with helpful suggestions and diagrams, to make sure that users will get optimal results from their monitors.

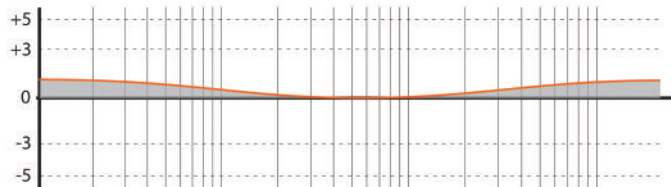
### Sound

I took a moment to set all filters to zero and positioned the cabinets on freestanding monitor stands in the middle of a fairly large room, about ten feet from the rear wall and about five feet from each side wall. With the tweeters at ear level and the recommended equilateral triangle complete (equal distance between speakers and from speakers to my ears), I turned on the power and put up some music.

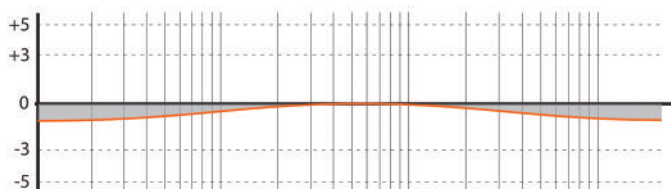
The speakers had been broken in, so I immediately engaged the services of Mr. Ray Brown, arguably the best player of the upright bass ever, in this case heard on his CD *Some Of My Best Friends*

### Low and High Filter Combinations

5



Mid-frequency attenuation through Low + High filter boost



Mid-frequency presence through Low + High filter cut

### All in all

The SC205 is only one of a line of 2-way speakers from Eve Audio that offer identical functions and different-sized woofers; based on my experiences with the SC205, you'd be well served simply by balancing price with the amount of low end you'd like from your woofers.

The Eve Audio SC205 delivers sound in quality and quantity that belies the cabinet's and woofer's modest size. Small enough to find a home in any room, it sounds big enough to fill sizable rooms with accurate and balanced sound. The thoughtful inclusion of on-board filter options lets a user compensate for flawed rooms, and that means that the SC205 can do a fine job just about anywhere you set it up. ➔

**Price:** \$579 each/\$1158 per pair (MAP)

**More from:** Eve Audio, [www.eve-audio.com](http://www.eve-audio.com); dist. in USA by TruNorth Music and Sound, [www.trunorthmusicand-sound.com](http://www.trunorthmusicand-sound.com).