

# Sonimus SonEQ 1.0



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## Introduction:

SonEQ is a digital equalizer that takes parts from some "vintage" equalizer, combine them in one.

SonEQ has 3 bands, bass, middle y treble. Also, SonEQ has a pre-amp section.

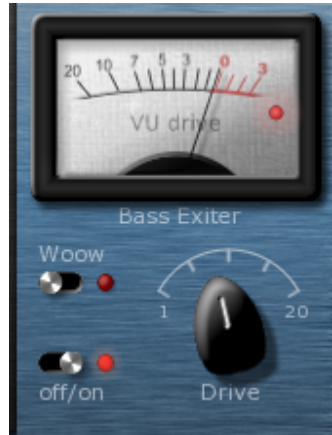
## Shortcuts:

- Using CTRL key or SHIFT key, you can get more accuracy in the movements of the knobs.
- (Windows Only) By **right clicking** over a knob, you can fill a value manually.
- **Doble clicking** over a knob: you can reset to previous value.

## Controls:

1. **Input/Output:** They control the input and output level. These controls are useful for saturation. As much is the level of input, we can get more saturation.
2. **Output Clip:** When the output of the plugin exceed 0 dBfs, this led is switched on. Note: SonEQ does not clip, this is because it works internally at 64 bits; but the led is used for knowing if we do not exceed 0 dBfs.
3. **HighPass/LowPass:** Very soft and musical filters for assuring sonorous quality. The LowPass filter is high quality, this is because it does not become deformed in the nyquist frequency. You can use these filters without shyness because they can assure you high quality.
4. **Low: Boost/Atten:** Bass controls. Both, boost and atten are not perfectly aligned. in this way is possible to get surprising effects, combining both knob.
5. **Mid Freq:** It controls middles, which extend from 150hz to 4khz. **Mid Gain:** It controls the gain of middles (-12 to +12). **High Q:** It controls the bandwidth of middles, when this control is working the wave will narrow.
6. **Highs:** It controls trebbles.
7. **Drive:** It Controls saturation (which is linked to the "bass exiter". If you do not want bass exiter, set the drive control at low values. Control saturation amount with the control "input"
8. **Woow:** This control is a filter "all-pass" which generate a phase distortion, generating a psychacoustic soundround efect. This is only suitable to be used in fine mixing, and do not use it as tracking. Using this control incorrectly, may cause phase cancelation.
9. **VU METER:** It controls distortion amount, from -20 to 20 is a soft saturation, which is ideal for buses or soften the mixing. From -10 to -4 is a little more clear, giving more hit to the material. From -3 to +1 for stronger saturations but avoiding to break. Over +1 is your choice.

## Zone of pre-amp



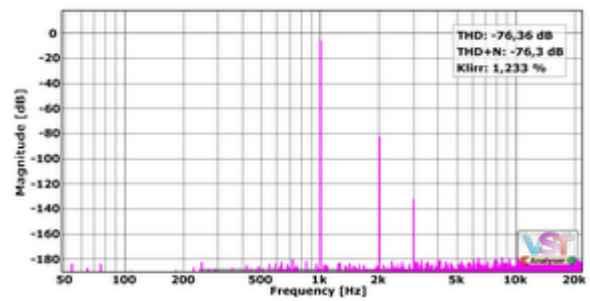
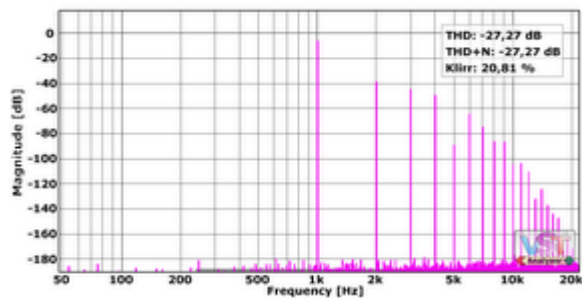
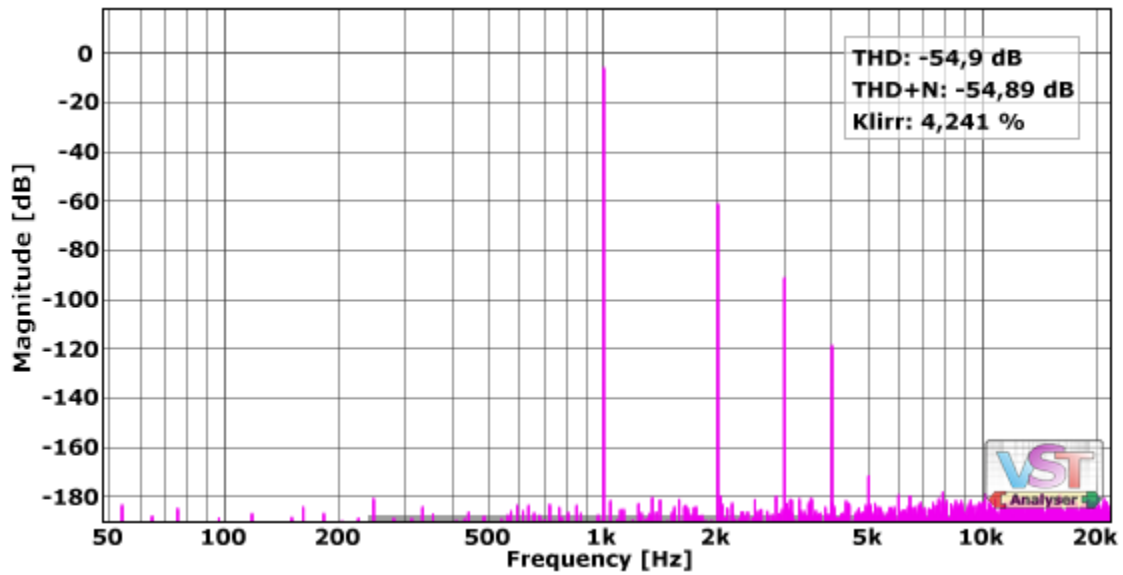
**SonEQ** is an equalizer modeled from two analogic devices:: A550 y PuEQP; obtaining by this way two equalizers in one.

The **pre-amp** section have been carefully made to obtain a warmth effect and at the same time keep a subtle effect.

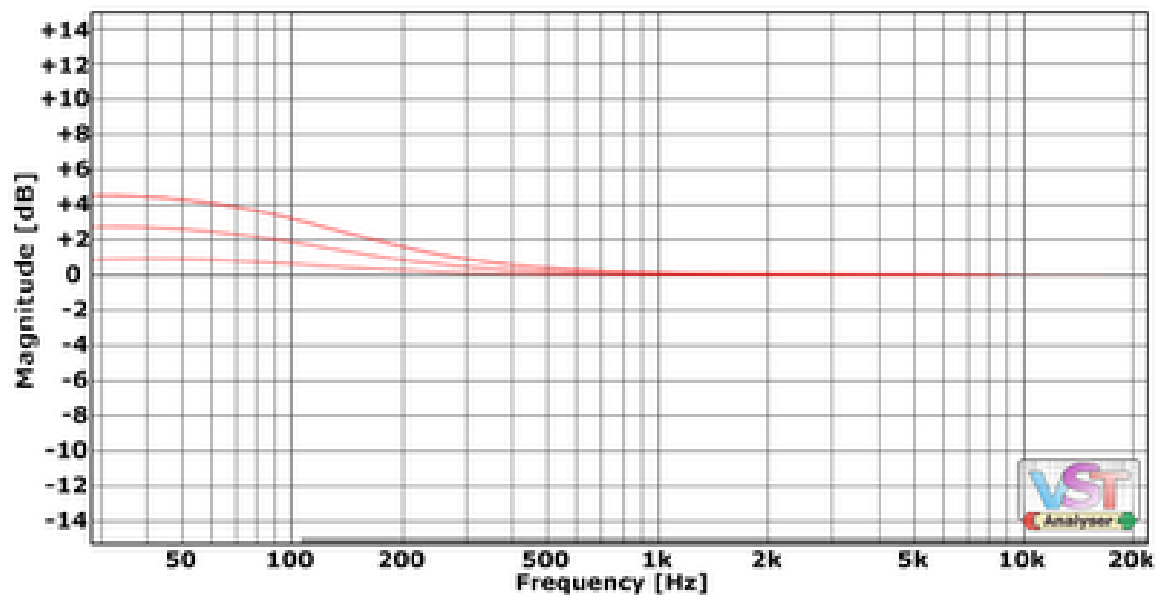
Saturation stages do not simulate particularly any device, but it is based on modes of vintage devices. The first tube emulation stage, stands out the transients and it gives to the sound depth, punchy and width; meanwhile, second stage smooths the transients. The result is a warmy distorsion, subtle, but creating a sensation of amplitude and more punchy.

### Graphics:

Next, we will show three graphics about harmonic distorsion: the first with a normal drive, the second with a little distorsion and the third with maximun saturation. (If you want to know how to read these graphics go to: <http://sonimus.com/articulos/tips/2/eligiendo-nuestro-armamento-de-plugins-parte-1.html>)

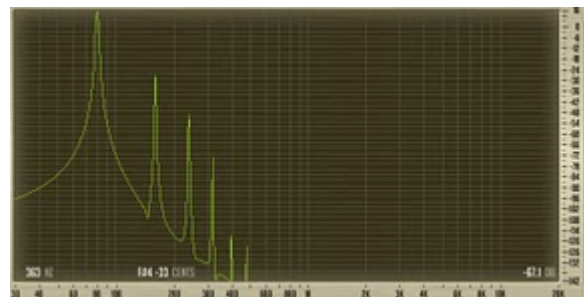
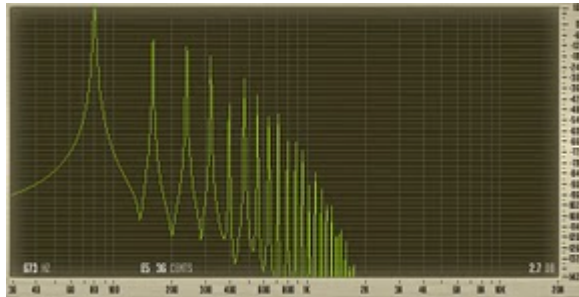


## Bass Exciter



The pre-amp stage has reinforcement on the basses; this quantity will be determined by "LS drive" control (showing in this instance just as a simple drive)

The highlight of basses get the companion in a natural way for the amount of saturation in these zone. Next we will show two graphics of measurement THD (Total harmonic distortion) took with a sine wave in 80 Hz, first with "LS Drive" in 1, and then 20



As we can see, there is not aliasing or inharmonic content, even in the highest marks of value of the drive.

## Other Information

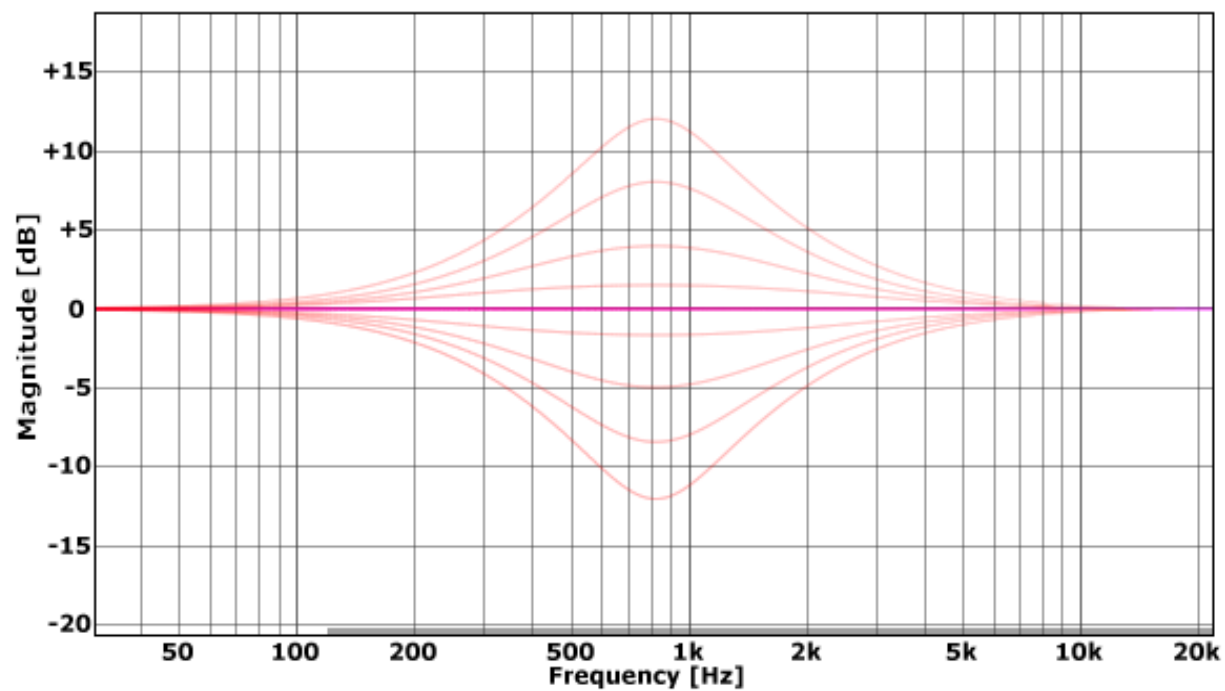
In order to control the saturation amount, SonEQ has as a feature the **"input" and "output" controls**. In this way, as much is the level of input, more distortion we can get. It can help us for saturate, avoiding to use the key "drive"; this is because it adds highlights to the basses. The Input key is in control of the entrance from the beginning of the chain (before the equalizer), and the "output" key at the of the chain. (After the saturation stage)

Pre-amp stage is placed after the equalization stage, in this way we will control the armonic amount, too from the equalizer. For example, if we do a highlight at middles with the equalizer, and the pre/amp is switched on, then for this frequency band, armonics will increase too.

Pre/amp stage can be switched-off (with the key off/on) because sometimes it wont be necessary to get a pure equalization and without saturation.

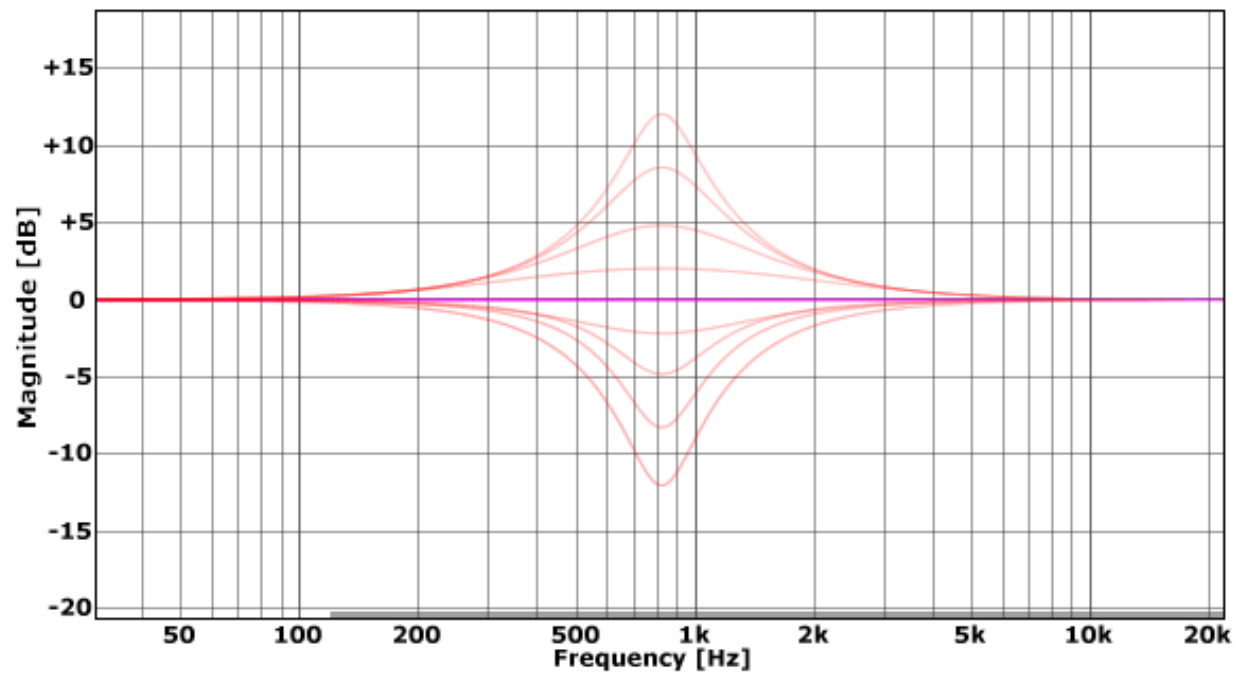
## Frequency responses

### Middle

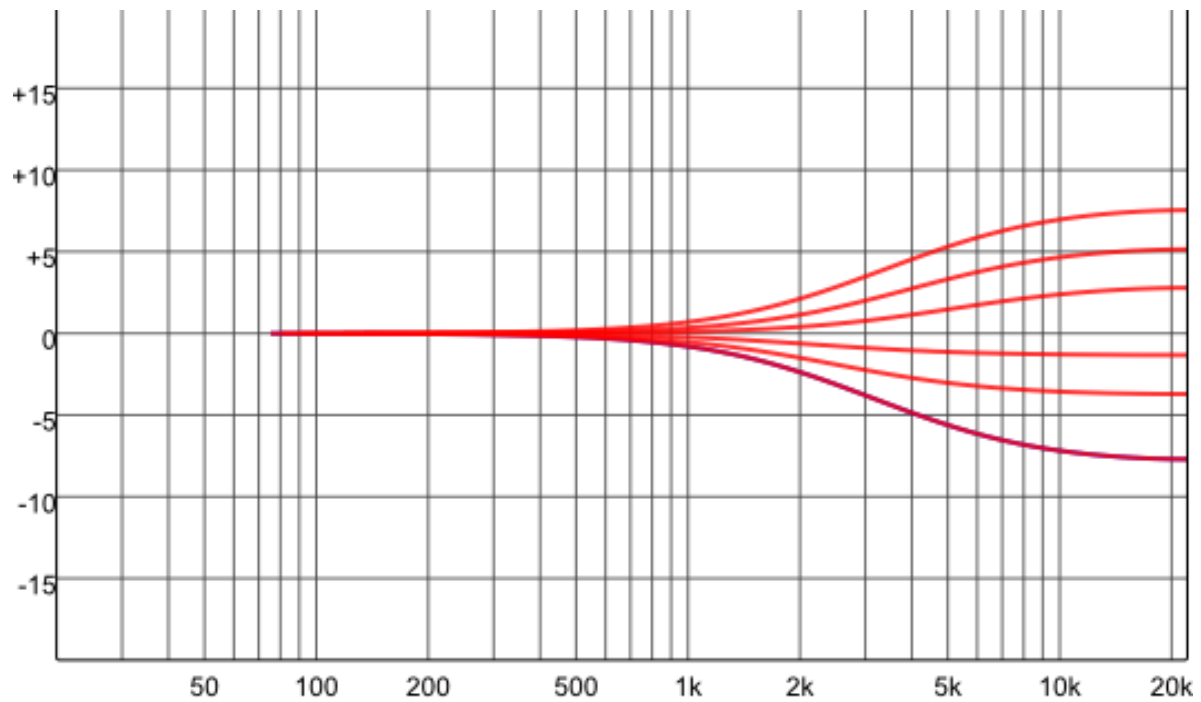


Middles without HiQ

Middles with HiQ



Treble



## Basses

Look here: [http://www.youtube.com/watch?v=l791hFe7i9o&feature=player\\_embedded](http://www.youtube.com/watch?v=l791hFe7i9o&feature=player_embedded)

Graphics have been took from the *VST Plugin Analyzer* Application by *Christian Budde*. Special thanks to Christian!



