

# Acustica Applicata products



 *Sound Analyzer 4.1*







# QUICK SUMMARY

Acustica Applicata products: **DAAD, SOUND ANALYZER, POLIFEMO.**

## DAAD

- **What they are:** **DaaD** is a passive acoustic device which works both in absorbing and diffusing a broad band of frequencies beginning at each model's lower limit and continuing to well over 20KHz: DaaD4 from 60Hz, DaaD3 from 80Hz, DaaD2 from 120Hz.
- **What they do:** **DaaD** reduces the destructively high levels of listening room reverb feedback which invariably compromises high performance music listening. They are **totally NEUTRAL**. They work mainly on room ARTICULATION and on ENERGY BALANCE. ROTATING each **DaaD** helps to fine-tune soundstage energy distribution. A properly positioned **DaaD** is extremely useful in correcting asymmetric HiFi system positions, room phase problems, and unwanted high pressure zones.

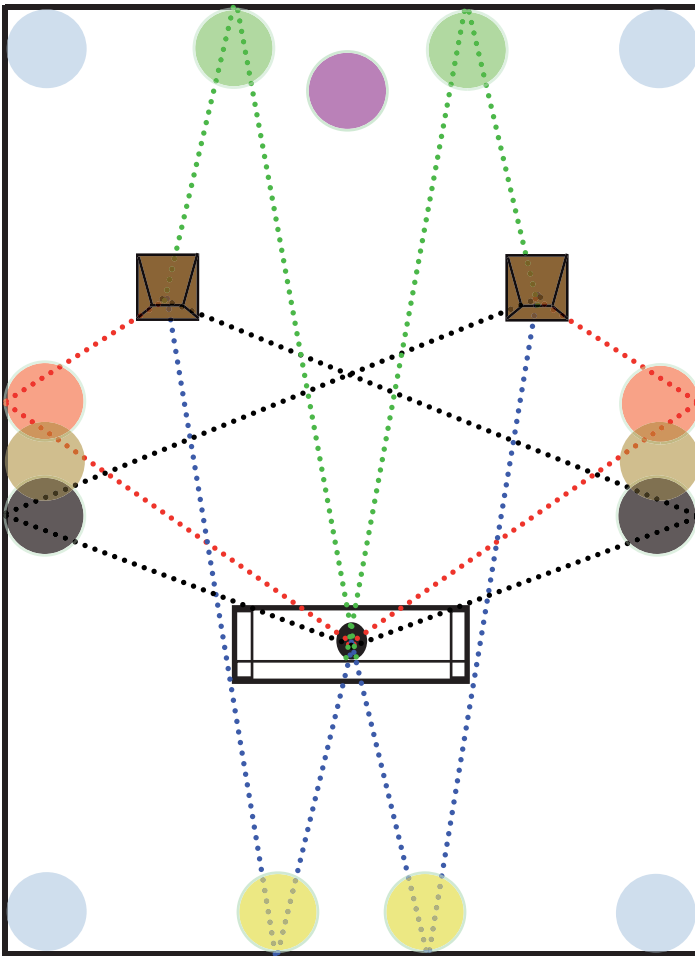
### - Placement of DaaD: (see picture next page)

-  **First:** In room corners where all room resonant frequencies combine.  
Preferred: DaaD4 and DaaD3.
-  **Second:** In first reflection pathways along walls, giving priority to those which are most direct.  
Preferred: DaaD3, DaaD2, Studio DaaD, Eco DaaD.
-  **Third:** in the middle of soundstage.  
Preferred: DaaD3, DaaD2, Studio DaaD.
-  **Fourth:** At the mid-point of a lateral wall, if a strong mode has been measured or identified in that position.  
Preferred: DaaD4 and DaaD3.
-  **Fifth:** In the corner between a lateral wall and ceiling, especially between the loudspeakers and listening position.  
Preferred: Eco DaaD and DaaD2.
-  **Sixth:** On the ceiling in the first reflection zone, especially when room height is lower than 250 cm. Preferred: DaaD2 and Eco DaaD.

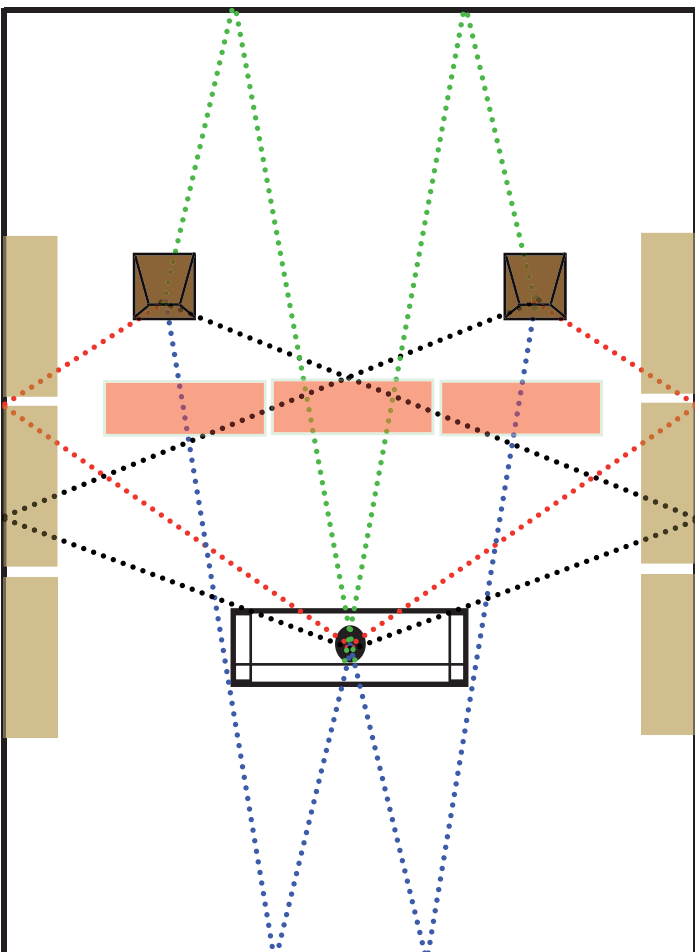
Remember the **FREE consulting service** and acoustic treatment plan drawing, guaranteed by Acustica Applicata.


- **How many DaaD ?:** In a standard listening room (about 215 feet square/20 m<sup>2</sup>)  
6/8 DaaD are needed in order to have an evident improvement in sonic performance.
- **What they can't do:** DaaDs won't work (or very little) under each model's low frequency limit. Won't reduce articulation or upset tonal balance. If DaaDs are incorrectly positioned they simply won't work at 100% of their performance capability.  
If poorly placed they will at worst increase soundstage asymmetry.

# DAAD suggested positions



-  Room corners.
-  First lateral reflections.
-  First reflections behind loudspeakers.
-  First reflections behind listening position.
-  First controlateral reflections.
-  Middle of soundstage.
-  Middle of lateral wall.



 Corner between lateral wall and ceiling.

 First reflection on the ceiling.

**Acustica Applicata**

Via Roma 79, 55027 GALLICANO

(Lucca-Italy)

[www.acusticaapplicata.com](http://www.acusticaapplicata.com)

E-mail: [info@acusticaapplicata.com](mailto:info@acusticaapplicata.com)

Tel. +39-0583-730322

Fax +39-0583-730914





# Sound Analyzer 4.1

## - What is Sound Analyzer:

It's a software that transform your personal computer into a graphic recorder that allows recording and visualization of any type of audio signal.

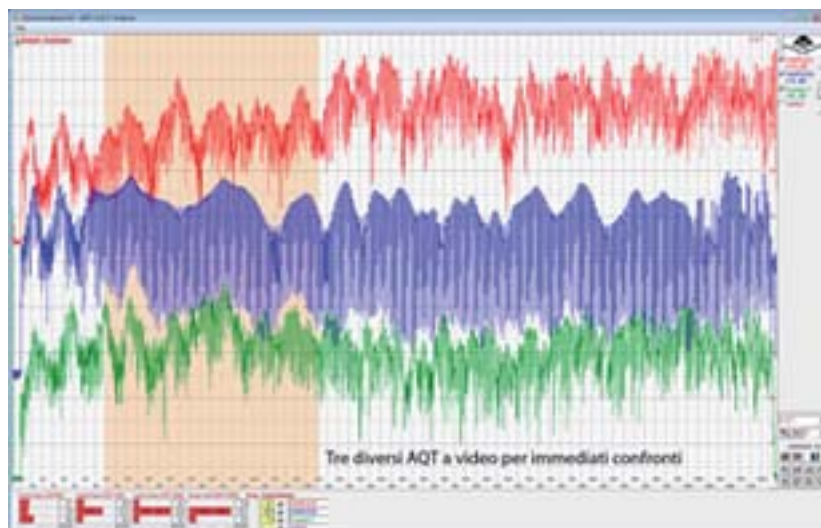
## - What Sound Analyzer do:

Sound Analyzer was built to use Audio Quality Test measurement method. With Audio Quality Test (AQT), developed by Acustica Applicata, you can analyze the real acoustic performance of a listening room. The results of this measurement method are totally coherent with the human listening feeling.

- Sound Analyzer is the best to determine the best loudspeakers and listening position.
- Sound Analyzer is the best tool to investigate about musical articulation, tonal balance and sound focusing.
- Specify your room sizes and the software calculate and draw the distribution of fundamental room modes and following harmonics.
- Essential for a correct positioning and tuning of subwoofer and an accurate levels setting of an Home Theater system.
- Immediate RT60 measurement.

## - What Sound Analyzer need to work:

- A standard PC with Windows 98, NT, 2000, XP, Vista.
- Sound Analyzer need the computer sound card to record the audio signal; on the laptop, due the very simplify and cheap audio chip installed, it's strongly suggested to use an external usb sound card.
- A standard Class 2 sound level meter.



# POLIFEMO

- **What they are:** Polifemo are passive acoustic resonators, they exploit the Helmholtz physical principle, but with some innovative and exclusive aspects: **1)** fine tune resonance frequency system; **2)** fine adjustment of resonator Q value (dampening system); **3)** easy positioning and rotation; **4)** transparent look for a better customer acceptance (we can see the wall behind it); **5)** totally neutral diffusing surface.
- **What they do:** Polifemo start to work from 25 up to 60Hz, but are evident improvements up to 800Hz. They have an “automatic” capability to intercept a resonant not-articulate boom that happens between 25 and 60Hz (typically in listening room without any acoustic treatment); in this case Polifemo decrease the boom energy and give it more articulation. On the contrary, if in the listening room there is a good sound energy distribution, Polifemo shows an “intelligent” equaliser behavior, giving more energy and articulation especially in the areas where the sound is depressed.  
So, Polifemo work **MAINLY** on the room **TONAL BALANCE** and then on articulation.

Translating in listening results: Polifemo clearly improves low frequency resolution and gives the medium and high frequencies a much better sense of “floating” over the bass ( rather than sinking into and being overwhelmed by them), the soundstage becomes wider while maintaining perfect instrument focusing with gains in realism and micro detailing. Listening tests show extraordinary dynamic performances without any listening stress.

## - How use Polifemo adjustment features:

With the variable port in the base the main resonant frequency can be set between 25 and 60Hz.

With the adjustable Iris port the Q value and the amount of energy that comes back into the listening room can be adjusted.

With the internal membrane, adjustment of the internal dampening of Polifemo is made possible.

## - Placement of Polifemo:

- In the loudspeakers projections area on the walls.
- In the area between first lateral reflection and the corner behind the loudspeaker.
- In the area between first rear reflection and the corner behind the loudspeaker.
- In certain cases, in the middle of lateral wall.

Remember the **FREE consulting service** and acoustic treatment plan drawing guaranteed by Acustica Applicata.

## - How many Polifemo ?:

In a standard listening room (about 20 m<sup>2</sup>), we need from 1 to 3 Polifemo, depending from the acoustics problems. Polifemo can work without any problems with DaaD also.

- **What they can't do:** Polifemo can't decrease listening room reverb time, over their upper frequency limit; they can't worsen articulation; if Polifemo are positioned in wrong positions, they can't work at 100% of their performances. In the worst case, they can increase soundstage asymmetry.

# POLIFEMO suggested positions

