

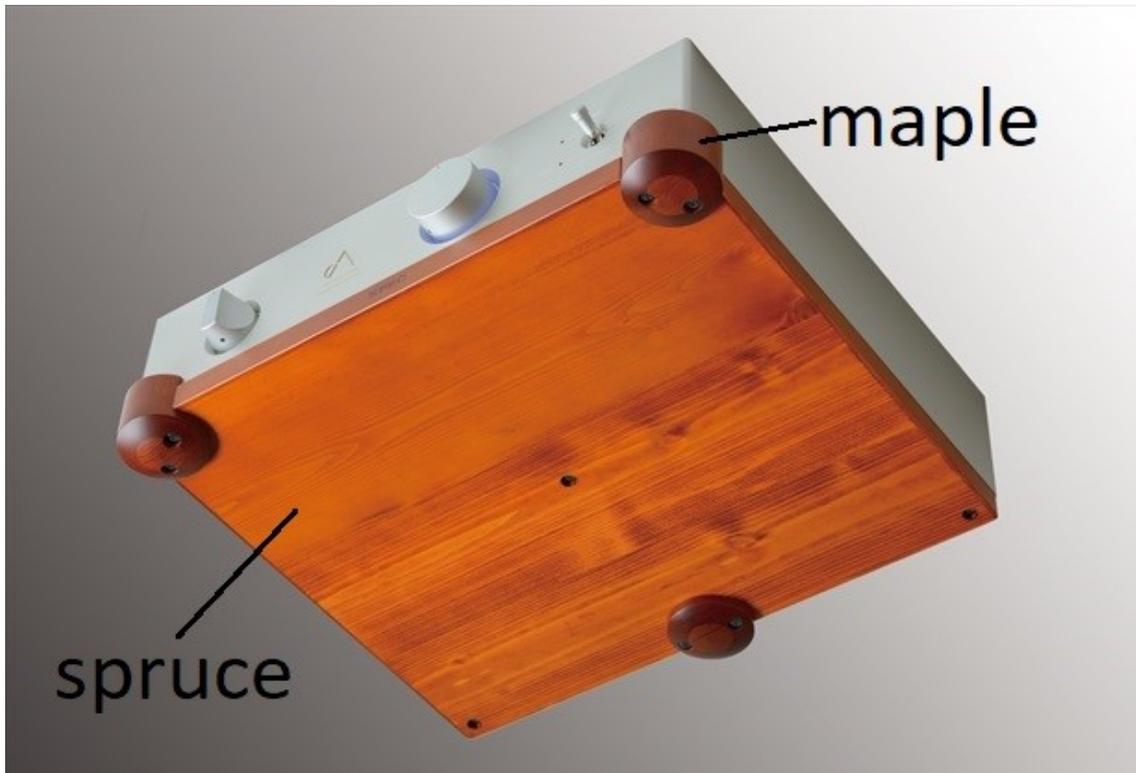
SPEC Technical Philosophy

We aim to manufacture best amps to experience music. The sound full of “MUSICALITY” faithfully reproduces the artistry of the performer. The musicality can be achieved by the tone as close as possible to the actual sound and the drive ability to follow the change without delay. We make an amplifier that is closest to the world's most realistic sound.



An amplifier is a musical instrument

Woods are not for appearance , but musical instrument itself.



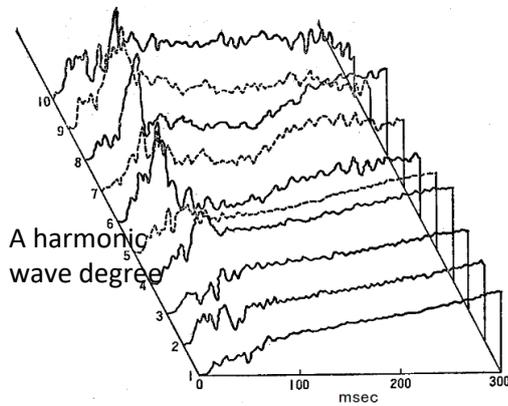
The top of a violin



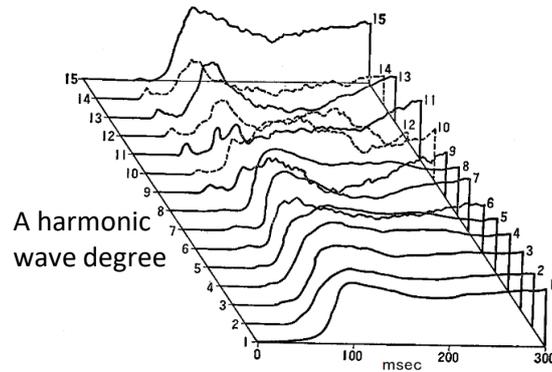
The back and ribs

Like a musical instrument , woods vibrate with music and create inspirational sound.

It's a minute signals to reproduce "Musicality"

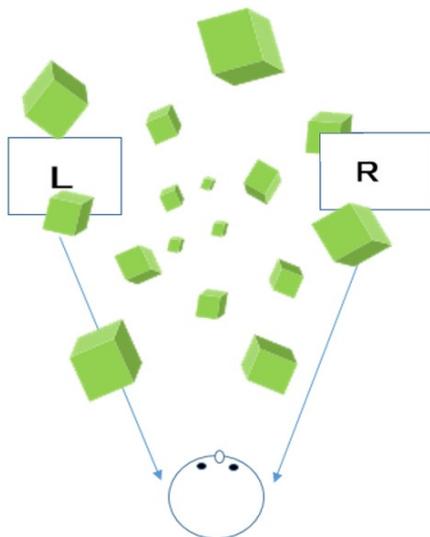


Harmonics(Violin)



Harmonics(Oboe)

Music sounds contain an enormous amount of detailed harmonic signals, which form a beautiful tone color. Especially, the tone of the violin contains sharp waveforms.

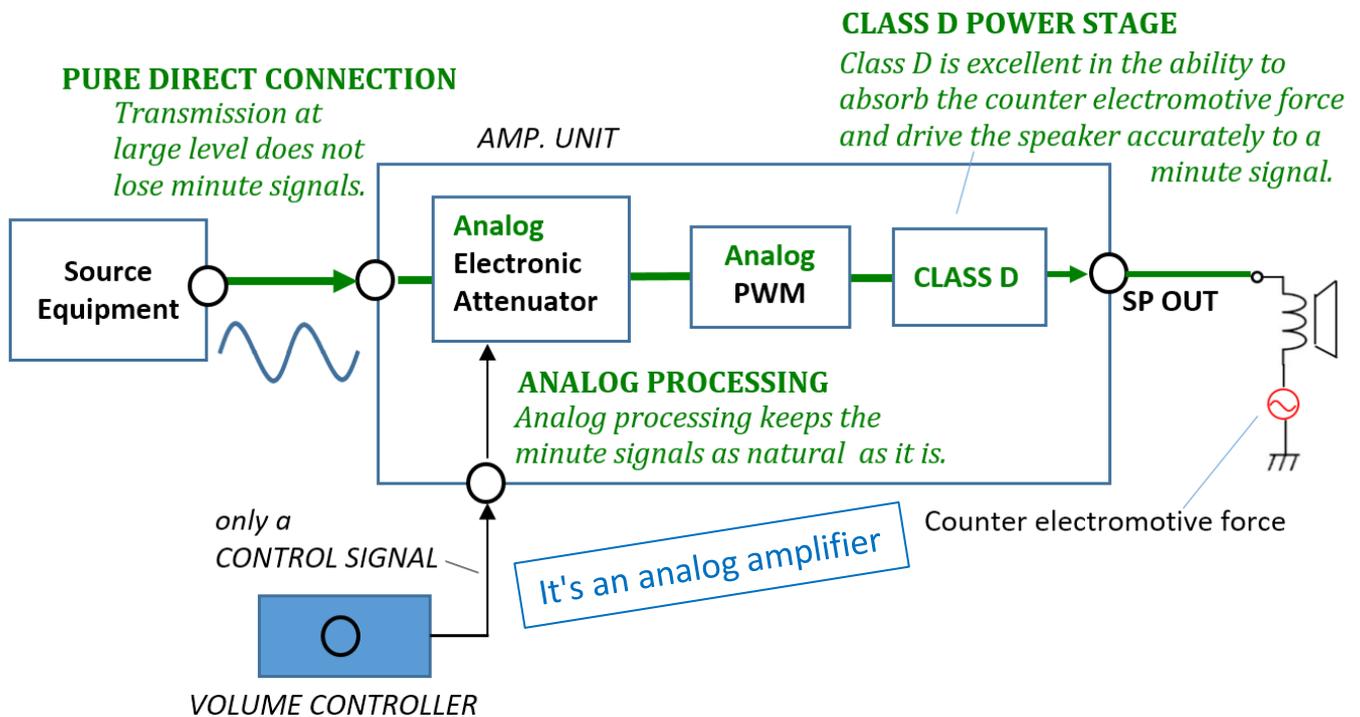


On the other hand, basics of spatial expression is stereophonic. Then, the basic of stereophonic is slight signal differences between left and right channels.

SPEC takes special concern in the faithful representation of minute audio signals.

PURE DIRECT SYSTEM for minute signals

The SPEC PURE DIRECT SYSTEM amplifies all those minute and steep signals accurately without exception.

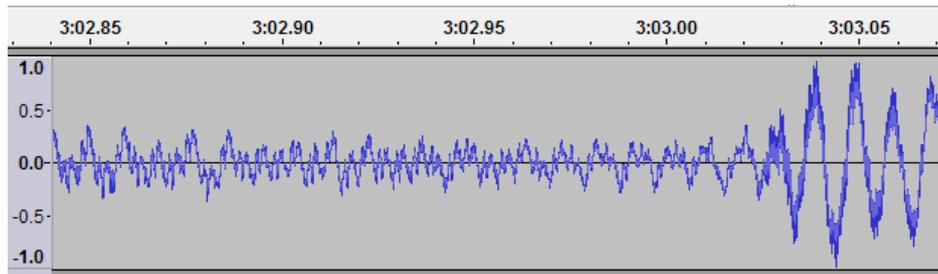


Transmission at large level does not lose minute signals.

It's an analog amplifier

The PWM-based amplifier can be said an analog amplifier because the amplitude value is amplified maintaining infinite resolution.

Music is always changing

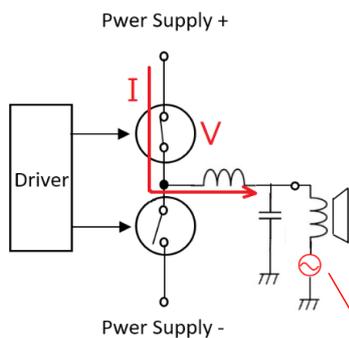


SPEC takes special concern in the **DYNAMIC DRIVE ABILITY** to follow changes.

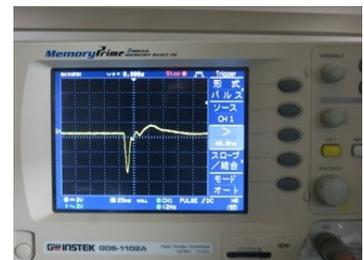
SPEC doesn't take concern in the Static characteristics. Many specifications measured with a 1 kHz continuous signal hardly represent the sound quality. Because music is constantly changing, the speaker drive ability to follow the changes enables highly musical reproduction.

Class D is the most suitable for dynamic drive

Class D is the most suitable method for reproducing minute audio signals and dynamic drive ability.



Class D has a very high ability to drive the speakers since the impedance of the final device is very low in principle.

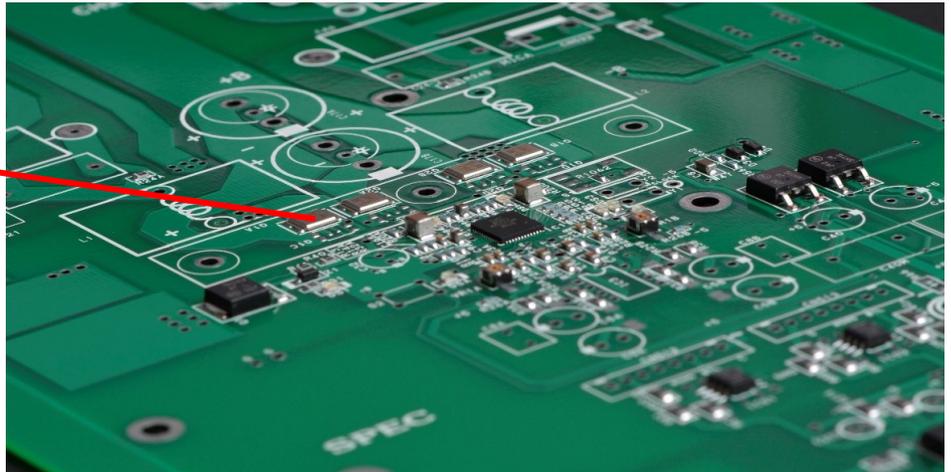


Speaker generates back electromotive force (EFM), disturbing accurate drive.

Class D drives the speakers more dynamically and accurately, absorbing the back EMF.

A small FET amplifies the music signal directly.

A very small FETs by Infineon Technologies amplify music signal up to 300W amplitude.



Simple and small circuit enables the sound with high-speed and highly clear tone. Furthermore, it is due to FETs almost completely prevent heat generation.

As it doesn't generate heat...

"No Heat" allows the amplifier to be hermetically sealed and makes it possible to attach wood to an amplifier.



We can use wood in close contact with the chassis.



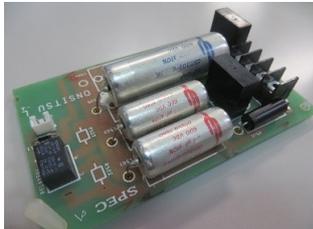
A sealed structure is possible because no holes are required for heat dissipation. Since the dust do not enter into the amplifier, the interior is kept clean for a long time. Therefore, it is also hard to break down.

Natural sounds are made by natural materials

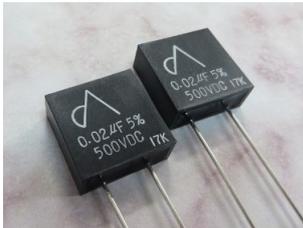
As a result of various trials, we came to the conclusion that parts made of natural materials are suitable for the reproduction of natural sounds.



Sandwiched wood of maple and spruce



These PAPER-OIL-CAPACITORS have been tuned exclusively by SPEC. Inner KRAFT PAPER brings beautiful tone sounds like a TUBE .



Mica capacitors used in SPEC amplifiers are made of highest quality ruby mica. It is produced only at the foothills of the Himalayas. It is made by orogeny of the Himalayas. Mica of high benefit from Himalayan orogeny movement and we can hear the profound silence.

