CLASS-A MONOPHONIC POWER AMPLIFIER

A-250

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Accuphase proudly launches all-new A-250 for the first time in 5 years. With dignity, A-250 is fully redesigned of A-200 which was introduced in 2012, and opening a new chapter as the newest flagship class-A monophonic power amplifier.

A-250 is superior to A-200 electrical performance and sound quality which were thought as the limits.

A-250's technical highlights are "Ultra low noise" and "Super high Damping Factor".

The noise characteristic is especially admirable.
We believe A-250 shows the best performance ever in the history of Accuphase Power Amplifiers.

Dimensions and Mass

- Same dimensions and mass as A-200
  - Width 465mm
  - Height 238mm
  - Depth 514mm
  - Mass 46kg

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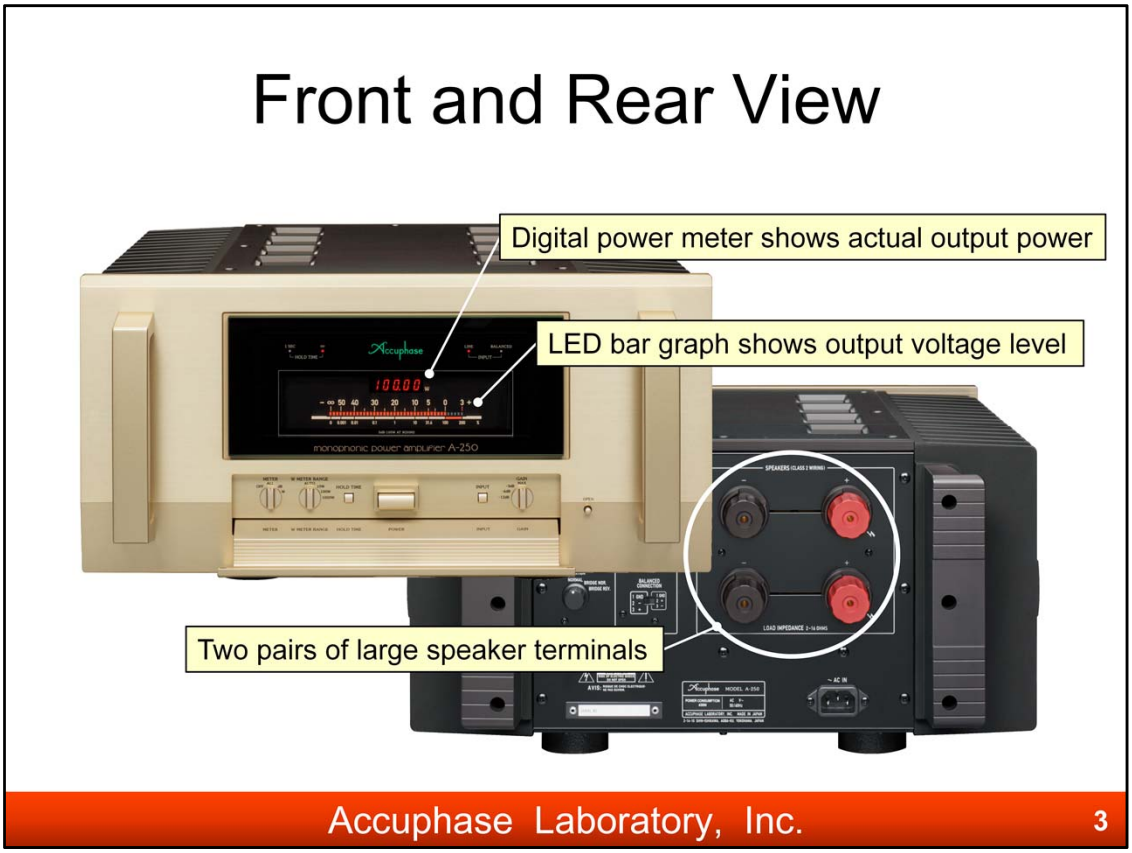
The size and weight of A-250 are the same as A-200.



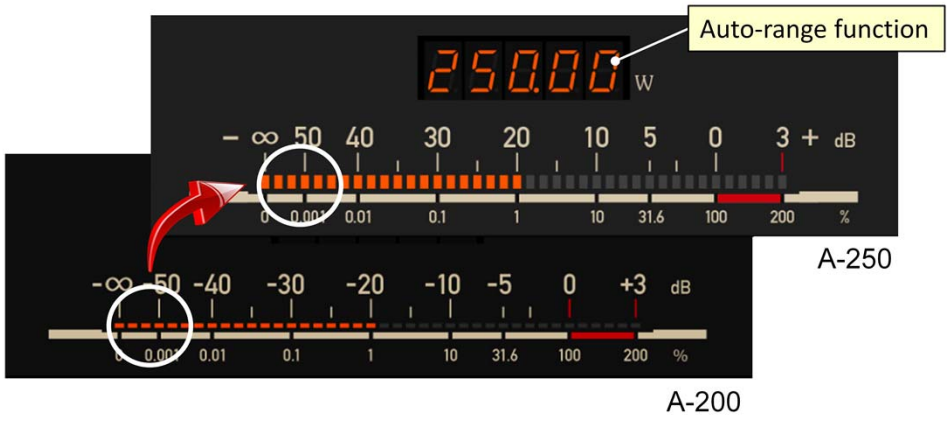
The digital power meter shows the output power without any effects of speaker impedance.

The 40-point LED bar graph shows the output voltage level.

Two pairs of large speaker terminals are equipped. They are useful for bi-wiring connection with loud speakers.

Front Display

- Easy-to-see LED bar graph
- New “Auto-range function” for the digital power meter range selection.



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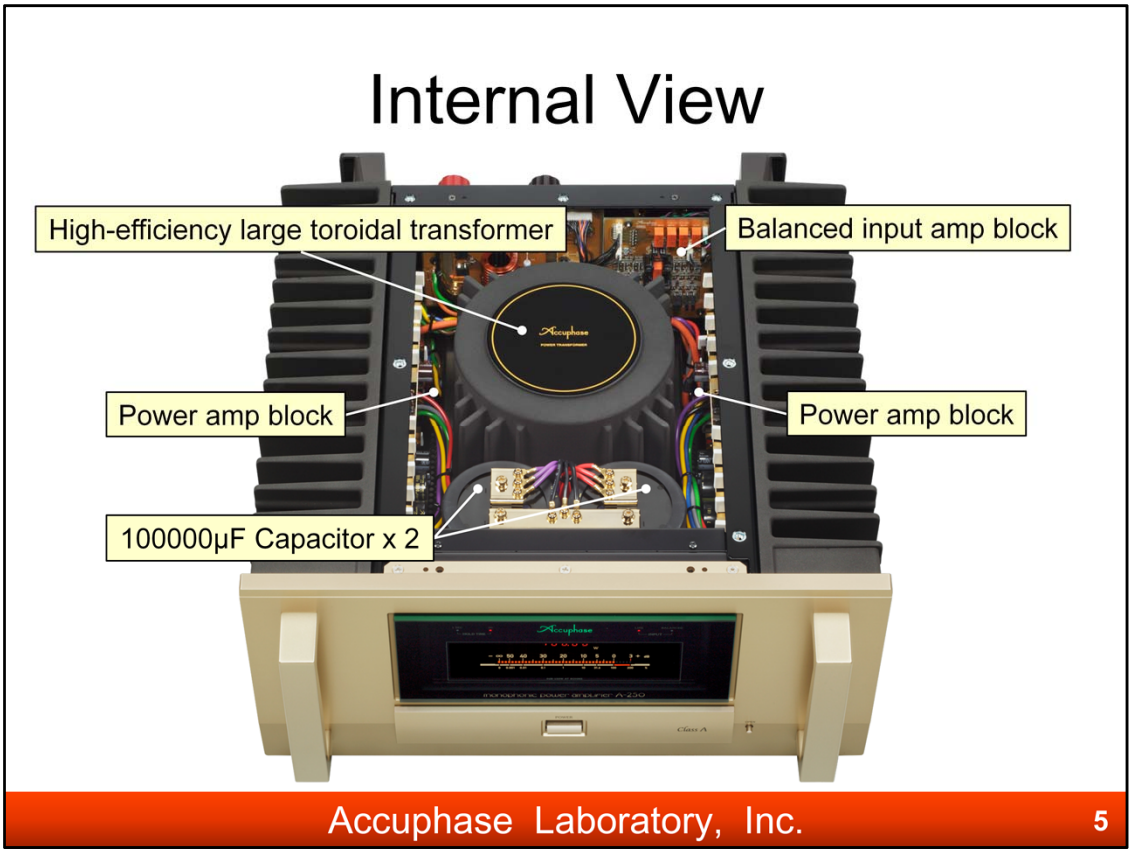
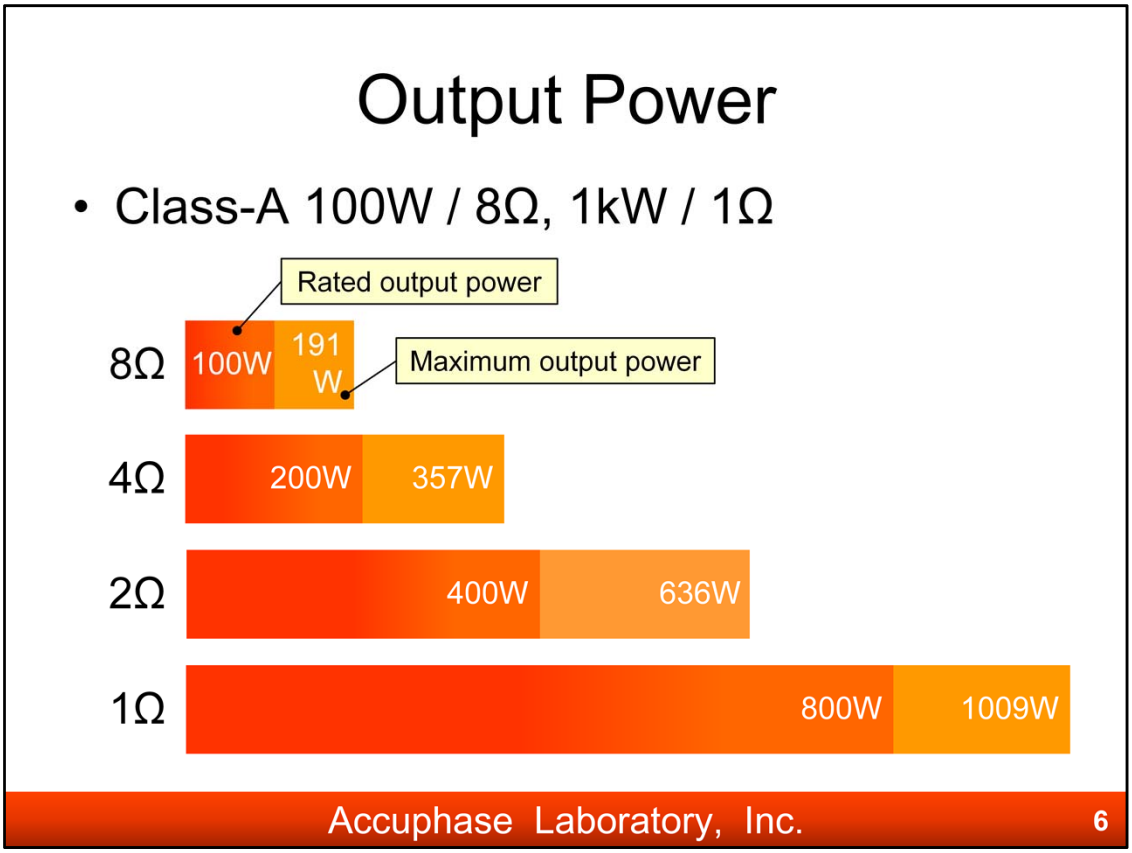
To make the LED bar graph for output voltage level easy to see, each element in the bar graph meter is enlarged and thickened.

“Auto-range function” is newly provided with the range selection of digital power meter.
Decimal point of the displayed value is automatically shifted in “Auto-range function” mode.



Strong power supply with a massive high-efficiency Toroidal transformer and two large 100000μF filtering capacitors are installed.

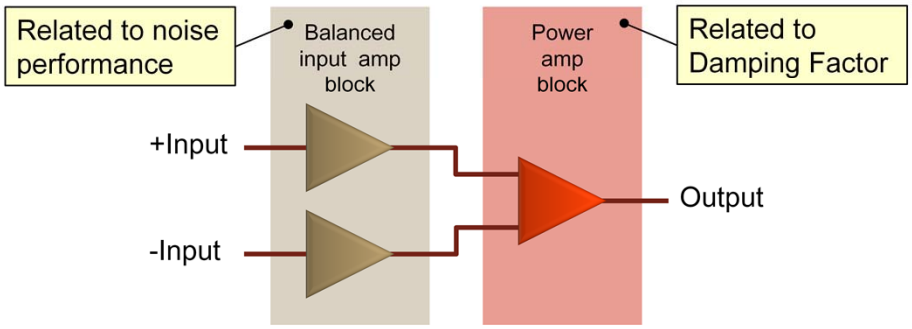


The continuous average output power(rated output power) is 100W into 8Ω load.
However, its actual maximum output power is bigger, saying191W into 8Ω and 1kW into 1Ω load.

**Output power is the same as A-200.

Highlights of Electrical Performance

- Ultra low noise
- Super high *Damping Factor



A-250 Instrumentation amplifier configuration

*Damping Factor: A index of speaker driving ability.

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The performance highlights of A-250 are the “Ultra low noise” and “Super high Damping Factor”.

The A-250 is consisted of a complete balanced input amplifier block and a power amplifier block.
The balance input amplifier block is related to the noise performance and the power amplifier block is related to the Damping Factor.

Ultra Low Noise

- 20% lower than the former model
  – S/N ratio: 127dB guarantee @Maximum-gain

Actual output noise graph

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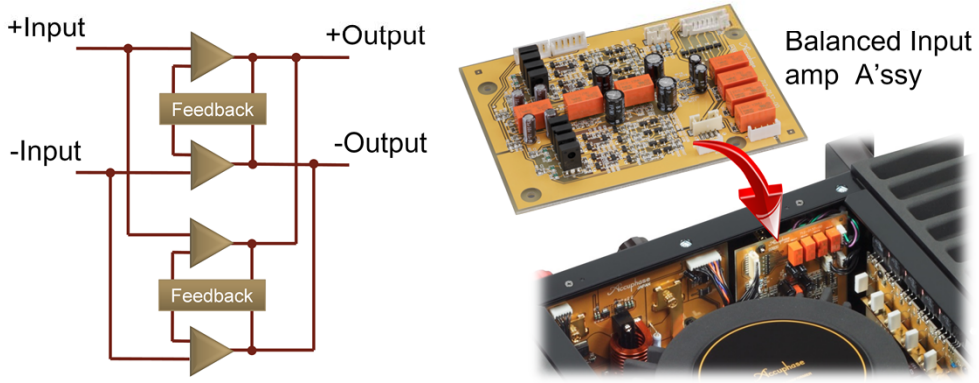
The former model A-200 has the excellent noise performance, however, A-250 achieves even 20% lower output noise voltage than A-200.

A-250 is the lowest noise power amplifier in the existing formidable Accuphase lineups.

A-250 guarantees,
SN ratio: 127dB @Maximum-gain

Technology for Low Noise

- Parallel operation in balanced input amp
- Full discrete configuration
- Placing the Balanced Input amp as close to the input terminal as possible.



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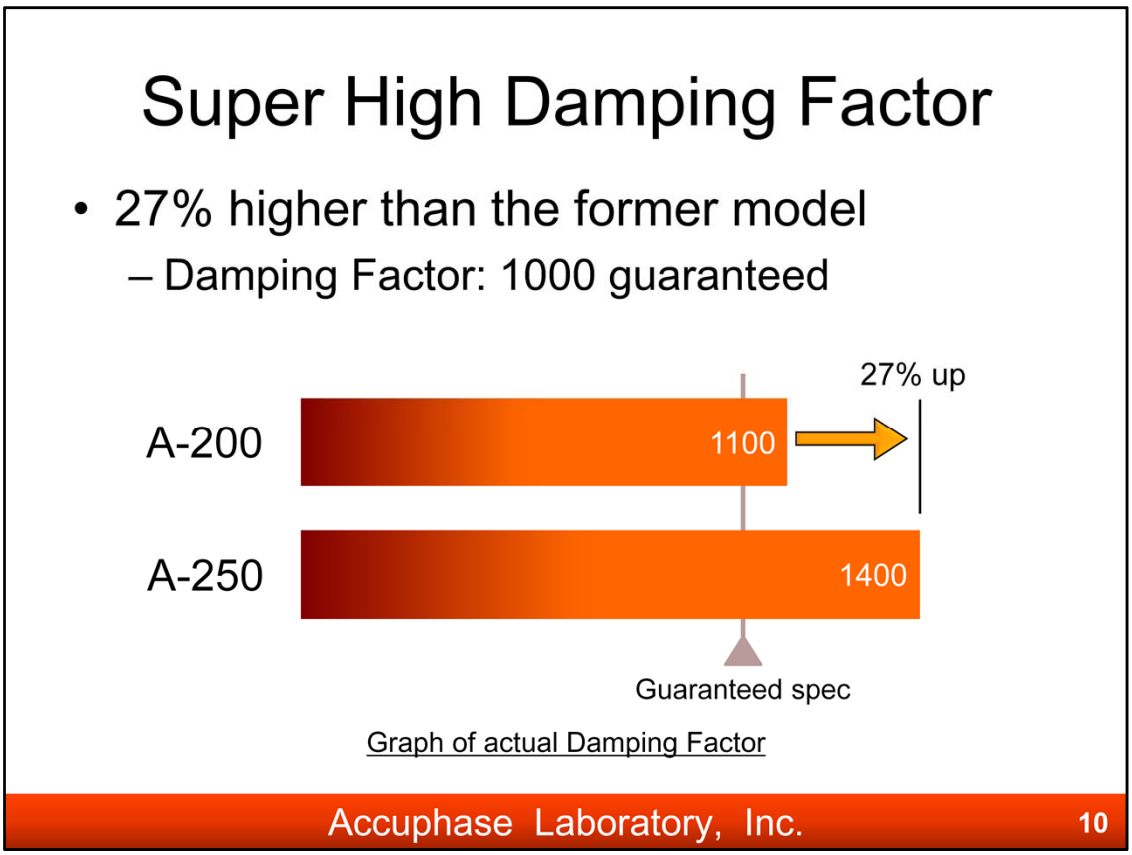
Output noise is reduced by some technologies.

Two amplifiers, they are consisted of complete balanced input amplifier parts, are operated in parallel.
Output noise is ideally decreased to 70%.

The discrete configuration amplifier which has no ICs is also effective for low noise.

The Balanced Input amplifier is placed as close to the input terminal as possible and it succeeds in minimum external noises.

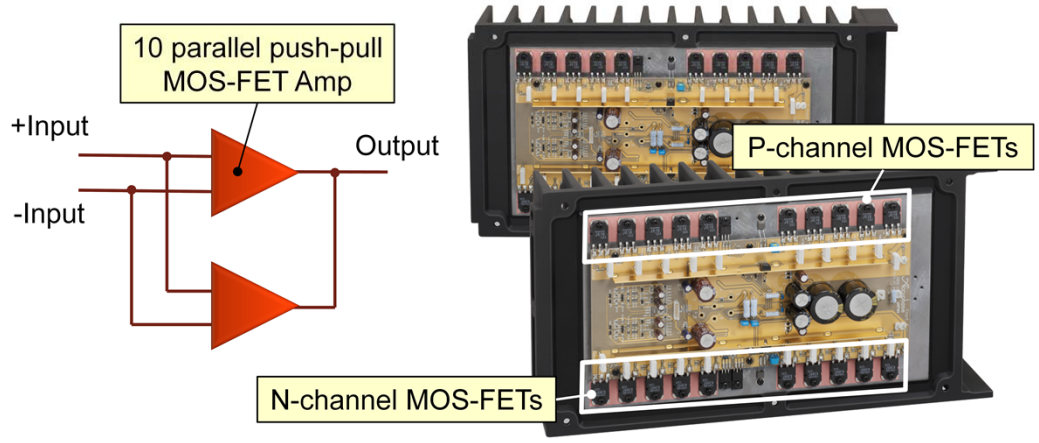


A-250 has the guaranteed 1,000 of Damping Factor.
It is the same as A-200, but the actual value is in excess of 1400.
It is 27% higher than A-200.

‘Damping Factor:
A index of speaker driving ability. Higher Damping Factor amplifier has higher speaker driving ability.
DF = 8Ω / Output-impedance

Technology for High DF

- Parallel operation in power amp block
  - Output impedance is decreased to 50%



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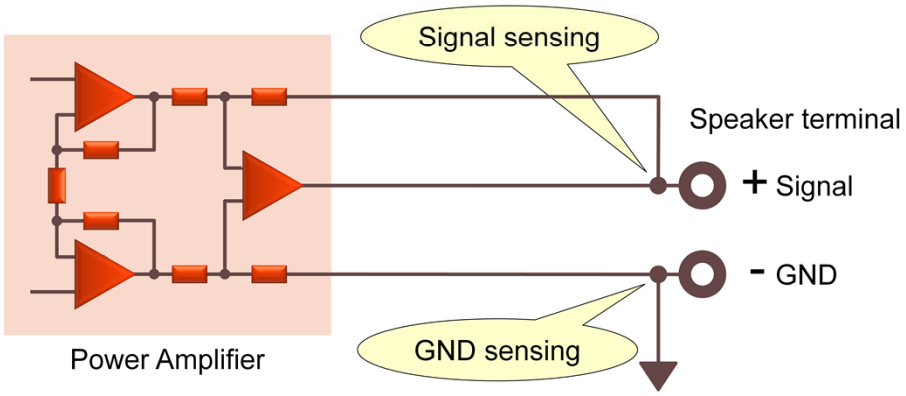
Output impedance is cut in half by the multiple connected power amplifiers with 10-parallel push-pull arrangement of power MOS-FETs.

Technology for High DF

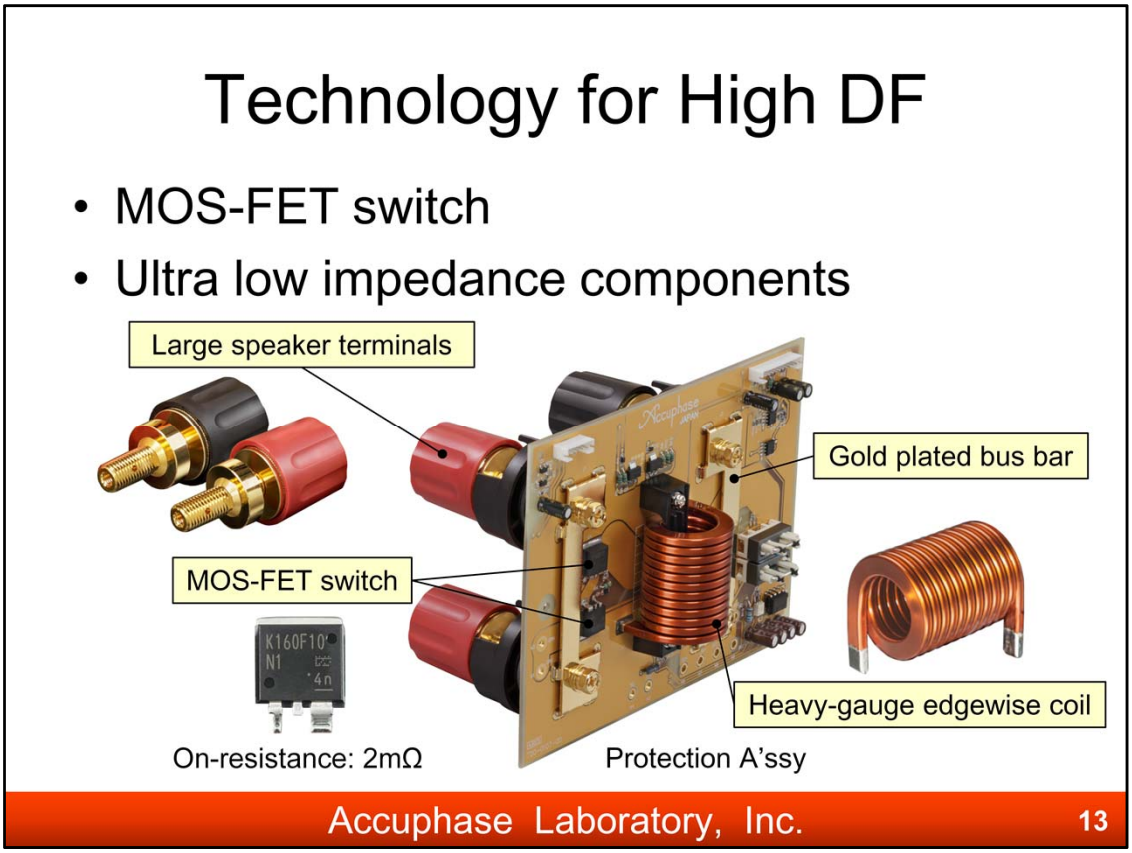
- Balanced Remote Sensing
  - Feedback from nearby speaker terminals
  - Signal-line and GND-line sensing



Remote Sensing is the technique to lower the output impedance of amplifier by the negative feedback with signal sensing from nearby the speaker terminals.

Balanced Remote Sensing is the technique to make the output impedance even lower by both the signal sensing and the GND sensing, that is the negative feedback of GND level.

Not only Damping-factor, but also Total Harmonic Distortion and Intermodulation Distortion are all improved by the Balanced Remote Sensing.



Mechanical relays are the common components for speaker protection but the super high Damping Factor is achieved by the lower impedance component, MOS-FET switch.

Thanks to this MOS-FET switch, the Damping Factor, reliability and sound quality are all improved.

A-250 employs carefully-selected very low impedance components like Large speaker terminals, Gold-plated bus bars, a heavy-gauge edgewise coil and so on. Making signal paths thick and short also helps attaining the low impedance.