CLASS-A STEREO POWER AMPLIFIER

A-36

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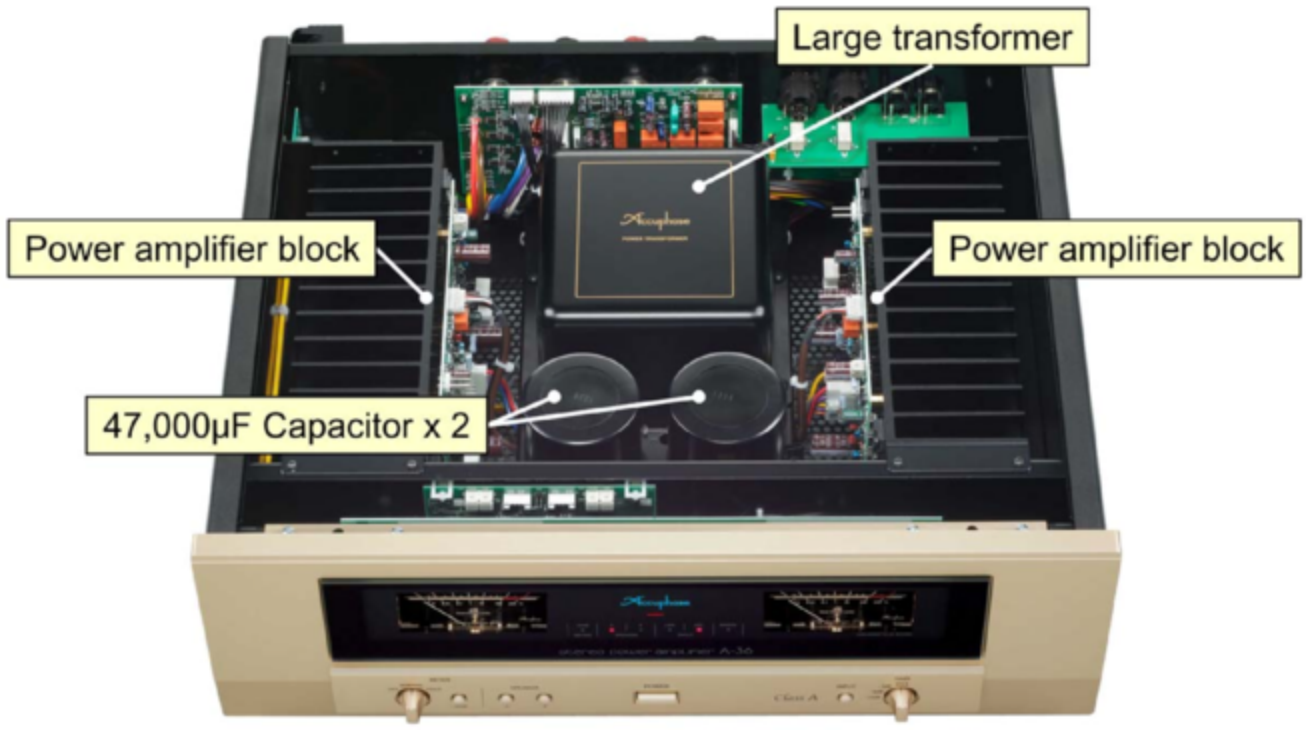
A-36 is a succession model of A-35.
A-36's big Technology features are "Low noise" and "High Damping-factor". They are inherited outstanding technologies from our 40-years-anniversary model, Class-A monophonic power amplifier A-200.

Front and Rear view

A-36 has 3 additional evolution features from A-35 are as follows.

1.Meter hold mode
2.Another set of large speaker terminal
3.Phase selector for balanced input

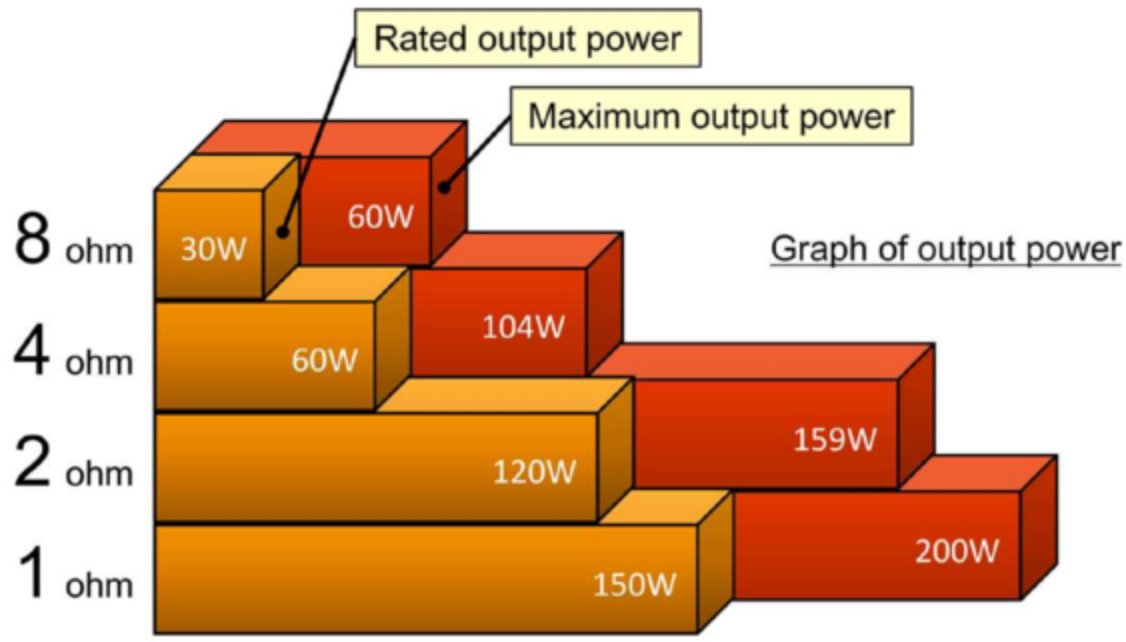
Internal view



Strong power supply by large transformer and 2 pieces of 47,000μF capacitor are installed.

Output power

- Class A 30W / 8 ohm, 200W / 1 ohm



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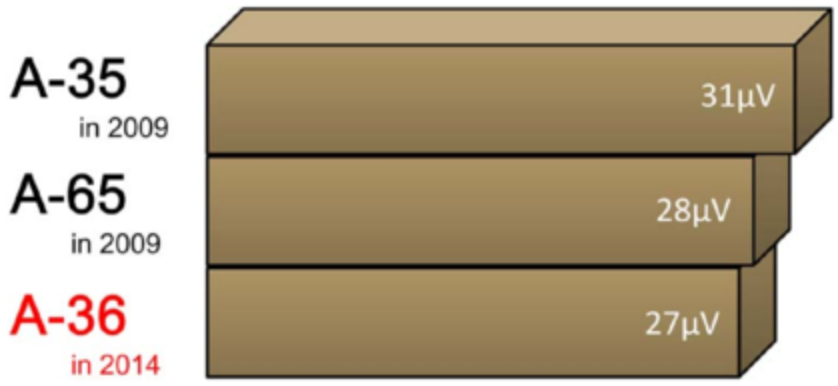
The continuous average output power is 30W into 8 ohm load.
However A-36 has bigger headroom for maximum output power. It is 60W into 8 ohm and 200W into 1 ohm.
A-36 is not small output power amplifier.

Low Noise

- Lower noise than A-35 and A-65
  - S/N ratio 112dB guarantee / 115dB(27μV)typical

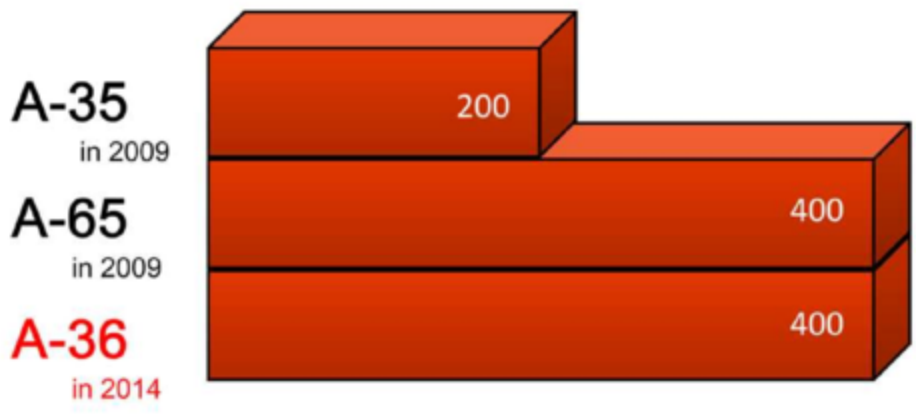


Graph of actual output noise

A-36 is remarkably low noise amplifier exceeding even A-65 not only A-35 in its S/N ratio.

High Damping-Factor

- Two times higher than A-35
  – DF 400 guaranteed



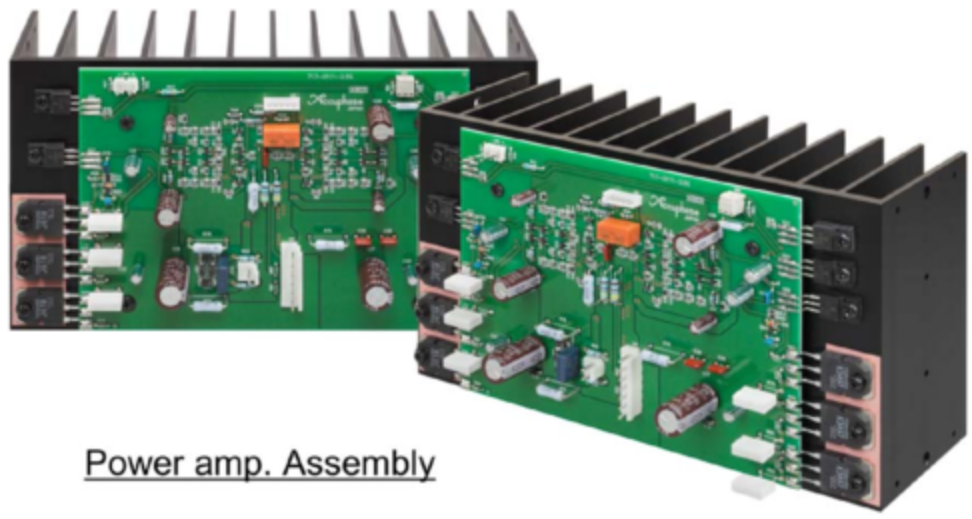
Graph of guaranteed DF

A-36 achieves 400 of Damping-Factor.
It is 2 times higher than the former model A-35 and equal to A-65.
400 of DF is guaranteed spec. In actuality, DF of A-36 is over 600.

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

Technology for high DF

- Low output impedance power amplifier engine
  - MOS-FET 3 parallel push-pull output stage

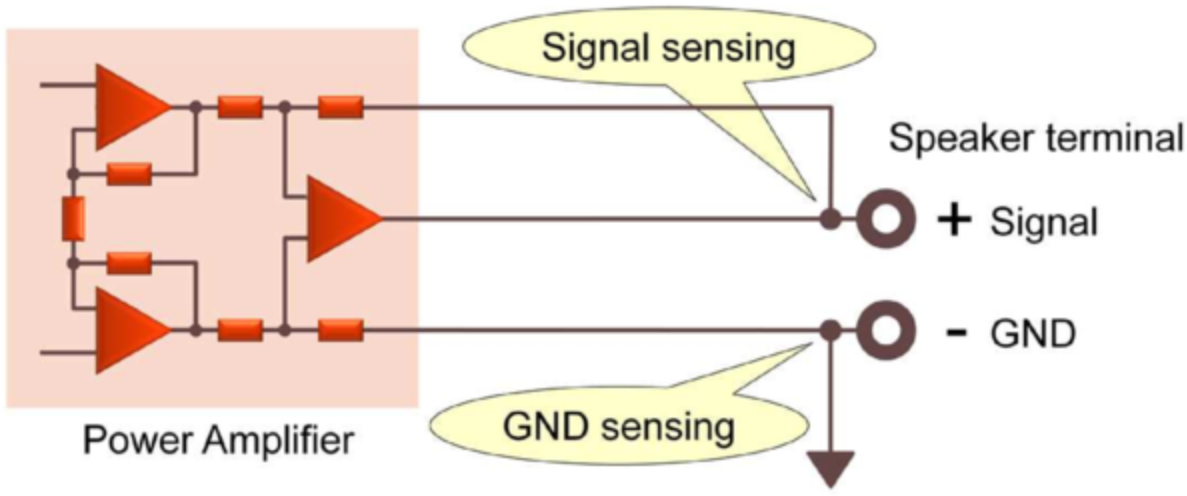


Power amp. Assembly

The Output impedance is decreased by 3 parallel push-pull output stage arrangement of MOS-FET.

Technology for high DF

- Balanced Remote-sensing
  - – Feedback from speaker terminal proximity
  - – Signal-line and GND-line sensing



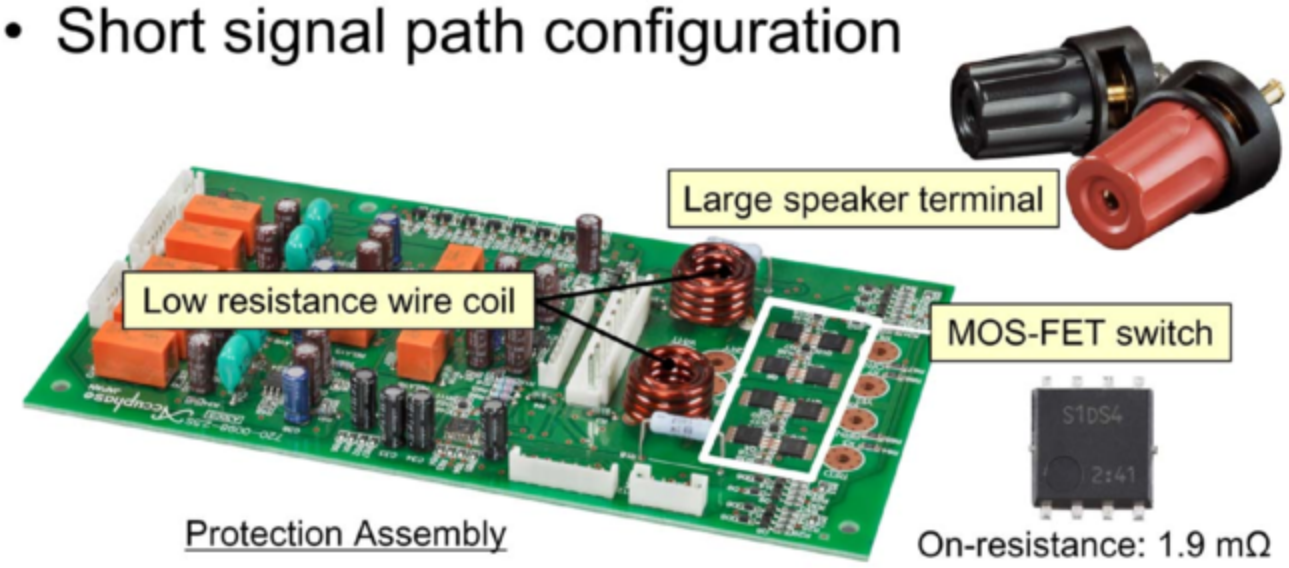
Remote-sensing is the technique to lower output impedance of amplifier by the negative feedback with signal sensing from close up the speaker terminals.

Balanced Remote-sensing is the technique to make impedance even lower by GND sensing and the negative feedback of GND level with adding the signal sensing.

Not only Damping-factor is improved but also Total Harmonic Distortion and Intermodulation Distortion get better by Balanced Remote-sensing.

Technology for high DF

- Speaker protection equipped with MOS-FET
- Using very low impedance components
- Short signal path configuration



Protection Assembly

On-resistance: 1.9 mΩ

Mechanical relay is the most common for speaker protection. It does not have good reliability and so lower contact resistance either. The former model A-35 employed mechanical relay.
A-36 employed MOS-FET switch instead of mechanical relay for speaker protection.
Damping-Factor, reliability and sound quality are improved thanks to MOS-FET switch.

Some other very low impedance/resistance components which are chosen for A-36 are large speaker terminal, low resistance wire coil and so on.

Making signal path thick and short attains having low impedance.