

P R I M A R E

THE SOUND AND VISION OF SCANDINAVIA

Primare A35.2 Design Brief



A35.2 balanced input bridgeable stereo amplifier is the most powerful amplifier we have designed utilizing our proprietary UFPD 2 analog class D amplification technology. In fact, a completely new UFPD 2 power output module and supply was designed to provide the power and performance we felt necessary for such a statement stereo amplifier.

Amplifier Section

The amplifier section utilizes the latest iteration of our new proprietary UFPD 2 power technology, providing immediate and sustained high power output with very low distortion, instantaneous rise time and absolutely linear amplification across the entire bandwidth resulting in a naturally fast, clean and agile sound over an ultra-wide frequency range and with exceptional headroom.

In UFPD 2 a new error amplifier circuit has been developed that does not affect the gain versus frequency curve and thereby the bandwidth does not have to be limited. This gives very low phase shift in the audio band and a larger closed loop bandwidth. Using a custom-made output coil in the 2nd order filter error amplifier with the same loop gain results in feedback control across the entire audio band. It has been optimized to keep the loop gain constant in the audio band, which means it is actually lower at low frequencies than with UFPD but much higher at high frequencies. The result is even more linear amplification, with lower noise with UFPD 2, providing absolute “black” backgrounds from which music has a more holographic, three-dimensional, life-like character and richness.

Power Supply Section

Given the speed with which the UFPD 2 amplifier module is able to deliver power to the speaker a switch mode power supply was the only choice in that it allows for rapidly varying demand, providing much more stable voltage, with ancillary capacitive storage to meet peak transient burst requirements.

As a result, a completely new power supply, with custom wound transformers, was designed to deliver the immense electrical power needed for the amplifier module to



produce the immense amount of musical power of which it is capable. For a point of comparison, the 150-watt rated I35 uses a 600-watt power supply while the 200-watt rated A35.2 uses a 900-watt supply, effectively delivering 50% more power to the output modules.

This newly developed Active Power-Factor Correction (APFC) converter is as much as 5% more efficient than past supplies and comprises dual PFC converters 180 degrees out of phase from each other. APFC is used to avoid input current harmonics, thereby minimizing interference with other devices being powered from the same source. This reduces the total current ripple and improves EMC (Electromotive Compatibility), while current ripple at the output of the PFC converter is also reduced, which decreases stress within the circuit for prolonged life. Additionally, the supply operates in what is called “transition mode”, minimizing switching losses and improving overall efficiency in delivering power to the UFPD 2 amplification module.

Control from Input to Output

Further, the input stage is designed using a four-layer circuit board to provide low noise, and an extremely short signal path, featuring balanced inputs and bridging capabilities, the A35.2 produces 200 watts into 8 ohms and 400 watts into 4 ohms, with bridged output of 800 watts into 8 ohms.

For more details see:

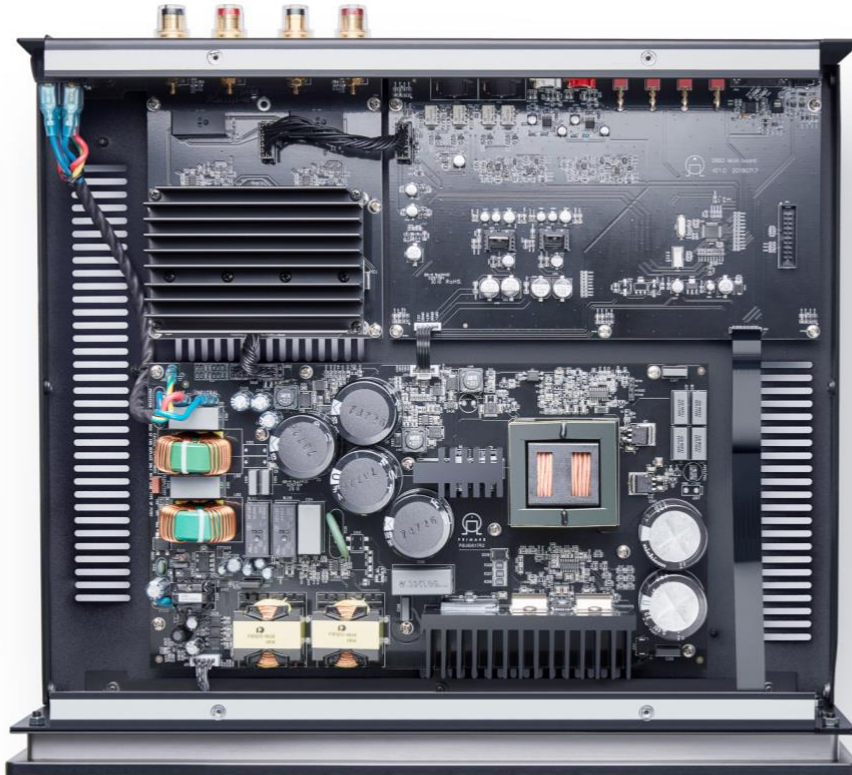
- [Performance Benefits of UFPD Amplification](#)
- [UFPD 2 Amplification Technology Design Brief](#)

Additional convenience features include auto-sense turn-on from standby, and auto-standby after an absence of input signal for twenty minutes, which can be turned off by holding down the front panel standby switch for five seconds allowing the A35.2 to remain on indefinitely.

Able to provide immediate and sustained high power output with very low distortion, instantaneous rise time and absolutely linear amplification across the entire bandwidth resulting in a naturally fast, clean and agile sound over an ultra-wide frequency range and with exceptional headroom, A35.2 is capable of bringing to life even the most demanding loudspeakers.



Specifications



Amplification

Amplifier module: Primare UFPD 2

Power supply: Primare APFC

Inputs:

- 1 x RCA (L&R)
- 1 x XLR (L&R)

Input Impedance: RCA 15k Ω ; XLR 30k Ω

Input Sensitivity: RCA 200W 8 Ω = 2V; XLR 200W 8 Ω = 4V

Gain: RCA 26dB; XLR 20dB

Output impedance: <0.02 Ω

Output Power:

- Stereo: 2 x 200W at 8 Ω ; 2 x 400W at 4 Ω
- Bridged: 1 x 800W at 8 Ω ; 1 x 500W at 4 Ω



Frequency Response: 20Hz – 20kHz -0.2dB

THD + N: < 0.008%, 20Hz – 20kHz, 10W at 8Ω

Signal to Noise: >110 dB

General

Control:

- Trigger in/out
- RS232
- Auto Sense: on/off
- Input: RCA/XLR
- Gain: +6db bridge mode only

Power Consumption: Standby: <0.4W; Operate: <28W

Dimensions (wxdxh):

- 430 x 400 x145 mm with knobs and connectors
- 430 x 382 x145 mm without knobs and connectors

Weight: 11.7 kg

Color Options: Black and Titanium



Note: features and specifications are preliminary and subject to change.

