



Power Factor Correction is one of the main improvement of the new Duo series. It allows to draw current from the mains in a more efficient way translating to a higher out put power with a lower power consumption.

Featuring a high-end on-board DSP, the new Duo series provide the most advanced solution to fully customize the system response on the portable and affordable power amplifiers range.

Features

- Class D power modules.
- Built-in DSP with front panel control and Windows remote user interface software.
- SAE Audio next generation Alu-body design.
- SMPS power supply unit.
- LCD amplifier status display.
- XLR input and signal link connectors.
- SpeakON NL4 and binding post output connectors.
- Channel independent protection and clip warning indicators on the front panel.
- Channel independent power and -3dB / -6dB / -10dB / -20dB / signal presence indicators on the front panel.
- Ultra-low unit weight.
- Fresh and sweet sounding characteristics.

Technology

Class D

As a result of long and intense efforts on PWM and Switch-Mode technology research and development, SAE Audio has finally released its first generation of Class D amplifier power modules. Being the benchmark for a new era of power amplification, SAE Audio Class D technology implements the most advanced electronics within the smallest form-factor amplifier modules. The new Class D amplifiers implement the most efficient sound amplification technology available today, providing an unmatched system portability and affordability for the best sound reinforcement performance.

Full Alu - body

SAE Audio next generation of audio power amplifiers are built into the most advanced ever 19" rack enclosure design. The Alu-Body chassis has been engineered to enhance the device protection, the thermal dissipation performance, and reduce the overall weight. Its curved lateral edges provide a wider surface in order to reduce the pressure applied in case of an impact, and the front and rear panels are protected within the same amplifier cover. Compared to traditional steel amplifier chassis the new full aluminum Alu-body design significantly reduces the amplifier weight, making it much more convenient to transport or install on mobile applications, and increases the thermal dissipation further improving the amplifier power efficiency.

Applications

- Mobile / portable public address or monitoring amplification.
- DJ sound system.
- Small sized bar / café / lounge installation.
- Applications with signal processing requirements.

Built-In DSP

The DUO series include a built-in Digital Signal Processor to fully adjust the amplifier response and match it with the room, speakers or audio source requirements. The DUO built-in DSP mounts a TMS320C672x series IC, the next generation of Texas Instruments high-performance 32/64 bit Floating-Point Digital Signal Processors, along with one independent Texas Instruments PCM1804 full differential ADC and one as well independent Texas Instruments PCM1804 advanced segment DAC allowing a 96kHz sampling rate with a 24bit depth AD/DA conversion.

The DUO series DSP can perform with an extreme accuracy channel independent functions like crossover (with multiple filter types), 8-band parametric EQ, 1 second maximum delay or signal level limiter to protect your speakers. It can be easily adjusted either through the amplifier front panel using its coder knobs and LCD screen or with its intuitive user interface software on a Windows computer.

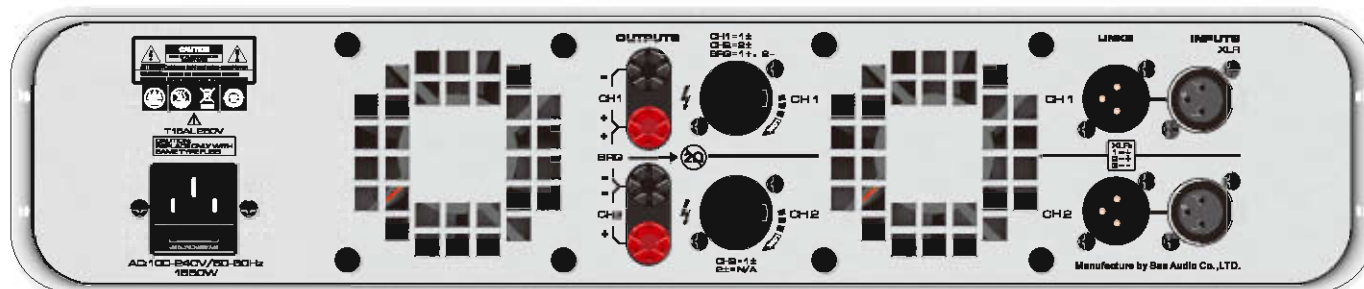
LCD Display

The DUO series LCD display provides the front panel user interface for adjustment of the built-in DSP. This display can also show realtime amplifier operation information like routing mode (stereo, bridge or parallel), input gain level and unit temperature.

Power Factor Correction

SAE Audio innovative Power Factor Correction(PFC) technology along with its renowned R-SMPS power supply allows to draw current from the mains in a more efficient way translating to a higher out power with a lower power consumption. Additionally PFC improves audio quality; it generates lower harmonics of the mains frequency thus reducing the hum and induced distortion because of perturbed mains.



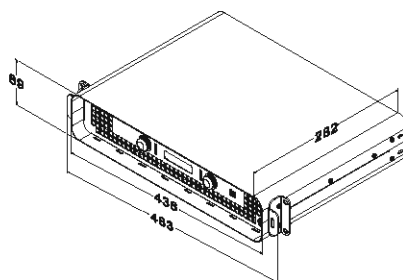


Duo1000 rear panel

Specifications

Model	Duo300	Duo500	Duo700	Duo1000
Output power (AC 220V / 50Hz. ±10%, All channels driven output power, THD=1%)				
8Ω Stereo*	300W x2	500W x2	700W x2	1000W x2
4Ω Stereo**	500W x2	850W x2	1250W x2	1750W x2
8Ω Bridge**	1000W	1700W	2500W	3500W
Other specification				
Frequency response	20Hz - 20kHz (+0/-1dB)			
THD+N	≤0.15%			
S/N rate	≥ 95dB	≥ 96dB	≥ 96dB	≥ 95dB
Input sensitivity	32dB			
Input impedance (bal/unbal)	20kΩ / 10kΩ			
Voltage gain	32dB			
Cooling	Air flow from front to rear			
DSP specification				
Crossover filtering	PEQ/LSLV/HSLV			
Center frequency	20Hz~22kHz , Stepping 1Hz			
Filter Q	0.27-15 Stepping 0.01			
Filter gain	6/12/18/24dB			
High pass / Low pass	Adjustable +15dB to -15dB, stepping 0.1dB , each channel output 9 segments EQ.			
Maximum delay	8.3(ms)/282.2(cm)/9.26(ft)			
Limiter	Threshold +6dBu to -90dBu, stepping 1			
Limiter release time	2895ms			
Dimension / Weight				
Product dimensions (mm)	483 x 282 x 89			
Packing dimensions (mm)	560 x 420 x 170			
G.W.	5.45kg	5.6kg	5.7kg	6.8kg

Dimension (mm)



Duo350 / Duo500 / Duo650

- Remark : 1. *Power tested under EIA standard.
 2. **Power tested under the condition of 40ms burst, 1KHz sine wave and 1% THD.
 3. SAE reserves the right to make any changes to the product specifications without prior notice. Final specifications to be found in the user manual.