



Fast Linear Ultimate Operation

FLUO™ could be considered a new brand with little to no experience, however the reality is very different.

FLUO has over a century's worth of audio knowledge, technical accumulation and product development know how, combined with a wealth of experience and passion to enable the design, production, and perfection of the ultimate sound engineering solutions.

FLUO is an elite group of the industry finest brought together with one purpose, to create truly exceptional audio products.

This unique team of individuals, each a specialist in their own field of audio expertise, realises exceptional visionary designs under the leadership

If we were yo

and creative direction of Keith Martin founder and Managing Director of IsoTek, the world famous and multi award-winning power cleaning brand.

FLUO is a collective, a passionate collaboration of visionaries. The very best talent working together to bring you the very best products across many fields of audio design.

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Unlike other companies, limited by an electrical engineering department, which tries to spread their limited knowledge thinly across many categories, FLUO harnesses knowledge, experience, and the strength of a diverse team of industry experts. Individuals who have the precise knowledge and talent to create exceptional audio solutions. For this reason, FLUO is a driven inspirational collective. World class designers and engineers working together but given creative freedom, time, budget, and space to develop the very best products for your audio enjoyment, without compromise!

FLUO is emotion combined with technical excellence built around one core purpose, to realise and deliver the very best products money can buy, products which create the finest sounding audio and music experience that is not only realistic but truthful to the musician's emotions and intention.



Martin

Keith Martin

It was 1999 that a younger Martin decided to establish and create a platform for high class audio accessories. This led to the creation of IsoTek and a challenging journey to bring a dream to become an international award winning reality.

Martin, a passionate and creative individual driven by the desire to realise astonishing audio products which recreate music faithfully with all the immediacy of live music performance and emotion intention, respecting the artistic integrity.

IsoTek, is a recognised and internationally award-winning power cleaning brand of almost 25 years. This Bachelor of Arts qualified industrial designer felt a need to bring to market products that delivered their intention truthfully and purposefully.

At a time when many considered power cleaning voodoo, IsoTek carved an honest path to redefine a market segment, which had been historically overlooked. IsoTek's many awarding winning solutions continue to delight music lovers world-wide.

Martin is the driving force behind FLUO.



Olbert

Kurt Olbert

Creator of the highly regarded RDC, resonance deadening compound, designed for effectively managing resonance energy within audio products, teams up with FLUO to bring to market a series of astonishing analogue products.

The Jubilee turntable brings to bare over four decades of experience from a master of his trade.

Olbert's general activities consist of high-end consultancy and technical trouble shooting and solving desperate tasks.

His vast knowledge across many technical fields attracts his talent to many professionally run companies, whether it is solving resonance issues within the sub chassis of automobiles or repurposing expensive printing systems, for example, Olbert remains the primary desired choice of consultant!

However, his love of audio cannot die, and his wish to apply a vast knowledge to audio is a true gift for the FLUO brand.



Christensen

Ole Lund Christensen

It was 1982 when a young Danish pro audio sound enthusiast and electrical engineer Ole Lund Christensen embarked upon a quest to make both better sounding and more reliable power amplifiers. Inspirationally he pursued a new and interesting type of industrial N channel MOSFET of only 70 W, and whilst early designs were often unstable due to the very wide frequency range of his designs, the hard work paid off and a reliable 2 x 250 W in 8 Ohm and 1'000 W bridged in 8 Ohm power amplifier was born, he called it SLT 250.

This concept continued to be refined and by 1995 the development of the Sirius DM 200, the world's first single MOSFET power amplifier was completed. This design would become the foundation for the highly praised GamuT Audio brand five years later and go on to win numerous audio awards including Editor's Choice Award 4 years in a row for the M250 in America's The Absolute Sound magazine.

FLUO is not only the rebirth of Christensen's vision, originally conceived over 40 years ago, but the foundation to bring his concept to its ultimate conclusion. Power amp performance so advanced, with timing, musical accuracy and precision, speed, and dynamics few could possibly conceive or believe.



ESCAPE VELOCITY

BREAKING FREE OF AUDIO CONSTRAINTS

All loudspeakers function based on Newtons law, force equal mass times acceleration.

To accelerate the mass of the loudspeaker cone a force is needed. This force is generated by the current in the voice coil.

Therefore, any limits or reductions of current will compromise the sound quality of your loudspeaker.

Output power transistors become more and more non-linear as they deliver high currents.

Because of this FLUO use output power transistors which can deliver up to 388 Amperes of peak current. The unique Fast Linear Ultimate Operation circuit design only needs 38 Ampere maximum; this will easily drive a difficult 2 Ohm loudspeaker.

So, a FLUO design only uses up to 10% of the maximum current! This astonishing figure allows the output power transistor function from 0 to 10% where it is much more linear!

In addition, the FLUO output power transistor can also go down to 0.022 Ohm as an internal resistance. So about 100 times lower than any difficult loudspeaker load.

FLUO also takes care to use low resistance 2.5 sqmm internal wiring cable in the power supply to avoid using long thin tracks on the PCB design by sending the current away from the PCB in low resistance wires and back to the PCB and again to the output relays.

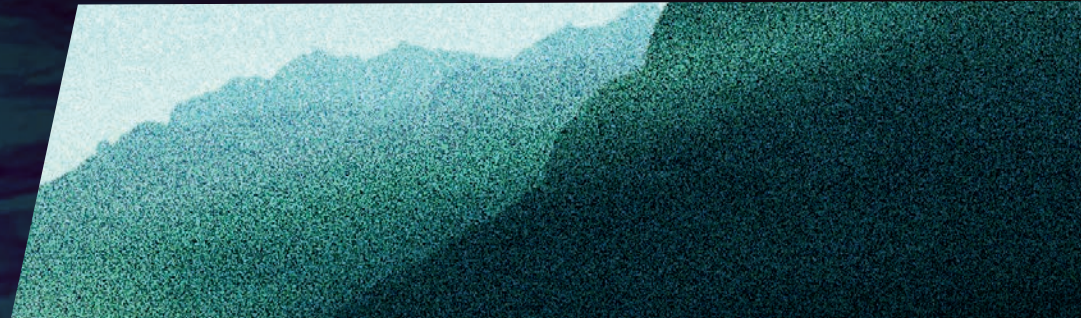
After the output relay, the current is again sent by low resistance wires, thus avoiding compromising PCB tracks. Even a 105 um PCB track thickness is only 0.105 mm, such a PCB track would need to be about 25 mm wide to match or achieve the same results.

The high specification considered internal wiring does result in greater amplifier assembly time, as more time is required for the hand assembly work, but the improved performance far outweighs this no compromise approach.

A Single Die metal-oxide-semiconductor field-effect transistor is used to deliver musical accuracy across the entire music frequency range as low as 16 Hz to beyond 20'000 Hz outside the scope of a human hearing range. However, 200'000 Hz and 201'000 Hz signals are removed to prevent distortions in the audible music range, these can cause a 1'000 Hz tone which compromise audio accuracy.

The FLUO high quality power supply capacitors also have a very low internal resistance, even at 100 kHz. Other brands do not specify their capacitor resistance at 100 kHz.

Each part of a FLUO product has been carefully considered, purposefully specified to delivery high performance audio. These expensive parts deliver astonishing musical accuracy and realism.



FLUO™ represents the highest level of audio engineering, combining both electrical and industrial design.

New technologies have been harnessed, with better practices and techniques to create and deliver exceptional audio products that redefine the ultimate level of sound performance.

FLUO™

FLUO is exceptional, and is the amalgamation of the most talented individuals, designers, and electrical engineers in the audio industry.

FLUO is a passion, driven to accurately recreate all musical performances with emotion and the integrity of performance.

Fast Linear Ultimate Operation (FLUO) has two objectives, firstly to keep the output of the amplifier correct no matter what level and frequency it receives.

Secondly the output is a constant linear factor of the input, thus the two are always in harmony. It is the purpose to amplify the signal with total linear accuracy, which gives total purity.

The moment an amplifier design requires many transistors to deliver the power, the signal purity is lost as there will always be differences between each transistor, thus the current is dispersed without enough control.

Consider having a single conversation or a conversation with 10 people all speaking at once.

The single path of resistance through the FLUO MOSFET is extremely low, 0.022 Ohms. This allows the amplifier to control the lower frequency range of the loudspeaker far more accurate with more precision due to its grip on even 2 Ohm heavy cone low frequency woofers.

In addition, each FLUO amplifier features a unique direct output from the terminals - most amplifiers send the amplified signal through a coil before the output terminals. This is done to protect the amplifier from difficult loudspeaker loads and reduce potential damage. FLUO offers a direct signal path, which delivers greater clarity and accuracy in the higher frequency range.

Design in most cases can be perceived as an open term not as an absolute definition. It is a creative process and thus open to interpretation. Sometimes design is combined with terms, such as less is more, which unfortunately can be used as an open justification to give credibility for very little.

However, we believe true design for performance orientated products require firstly a deep understanding for not only technical design and innovation, but that each and every part required must be understood for purpose, to bring to realisation an astonishing product each part must be considered purposefully.

There must be a balance in the context of the design, what is there has a meaningful requirement, and its quality has to be absolute.

Design

The FLUO design vision, is integrity, function, performance and ultimately a true purity of execution which allows a musical performance to be realised beyond expectations. Nothing added, and nothing taken away.

Then comes the art, the visual design combined with inspirational electrical engineering, knowing what is needed and what is not, and how all the elements and their quality shape the realisation of the ultimate sound intention. So yes, under the right considerations less can deliver more, provided that the design requirements are fully understood and use of parts is fully refined and correct for purpose.

True deep knowledge, experience and technical understanding, and the right use of exceptional components to realise true audio perfection is a total requirement.

Without this discipline less is simply less. FLUO's unique 'Fast Linear Ultimate Operation' delivers less resistance in the current path, which gives far greater audio quality. Less resistance within the mains transformer, less resistance of the PCBs topology and design, less resistance of the capacitors, less resistance in the Single Die MOSFET's and less resistance in all of the internal wiring cables uniquely specified.

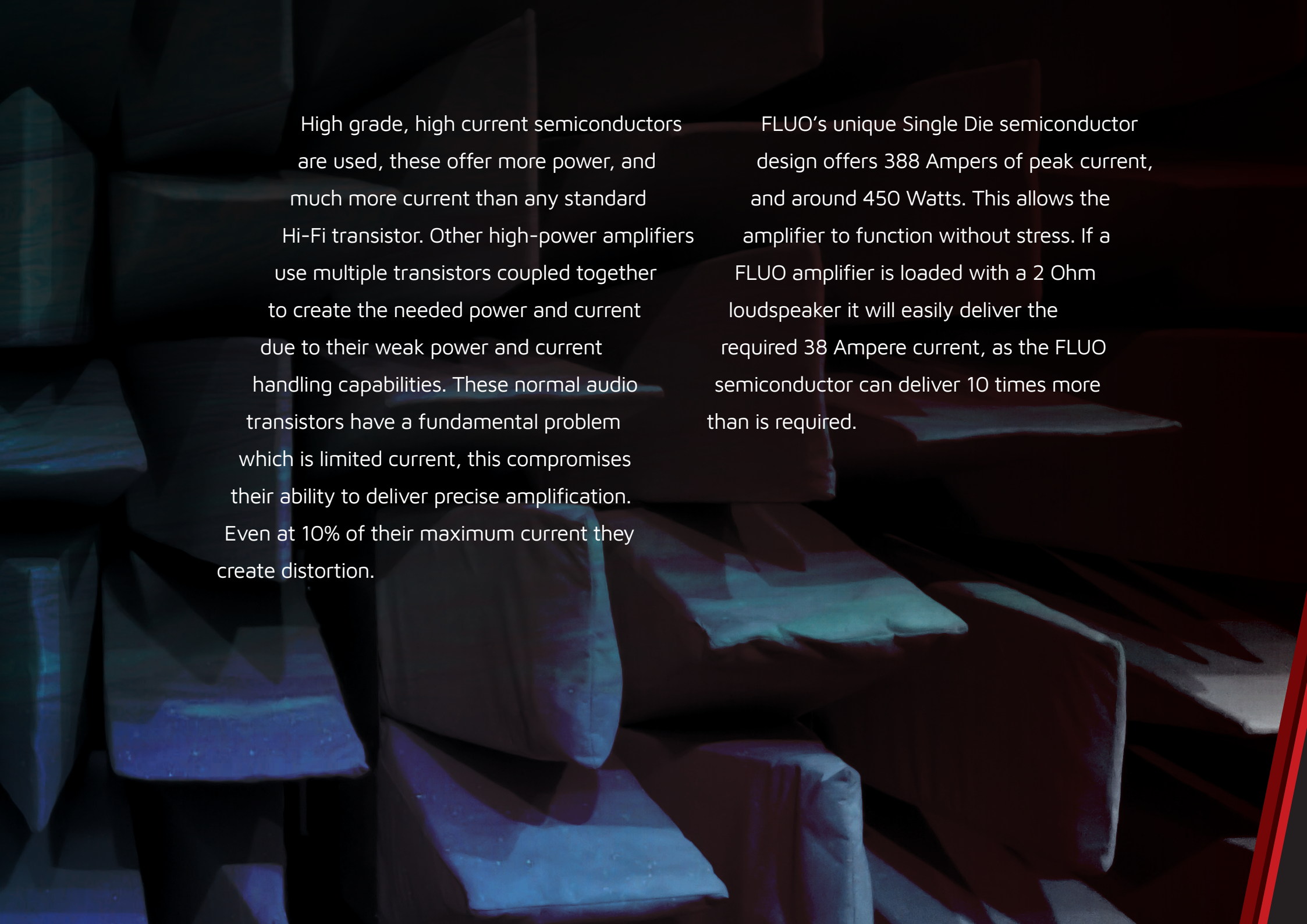
FLUO is the ultimate balance of technical precision and sound realisation, where there is no need for anything more, that isn't already there.

FLUO is the pursue of accuracy, integrity, and honesty to faithfully reproduce any musical event. Thus, the design and material usage of the products are carefully considered and purposeful.

Sound

The FLUO Single Die metal-oxide-semiconductor field-effect transistor concept for audio power amplification was first conceived by Ole Lund Christensen in 1995, it was a world first.

Using a single transistor giving a single audio current path, Christensen was able to deliver 200 W in 80hm with no need for many parallel transistor current paths to the loudspeaker, thus creating astonishing musical accuracy. His unique concept been reborn, redefined, reengineered in a new range of power amplifiers, that push the limits of musical realism. Designs which deliver absolute musical accuracy.



High grade, high current semiconductors are used, these offer more power, and much more current than any standard Hi-Fi transistor. Other high-power amplifiers use multiple transistors coupled together to create the needed power and current due to their weak power and current handling capabilities. These normal audio transistors have a fundamental problem which is limited current, this compromises their ability to deliver precise amplification. Even at 10% of their maximum current they create distortion.

FLUO's unique Single Die semiconductor design offers 388 Amperes of peak current, and around 450 Watts. This allows the amplifier to function without stress. If a FLUO amplifier is loaded with a 2 Ohm loudspeaker it will easily deliver the required 38 Ampere current, as the FLUO semiconductor can deliver 10 times more than is required.

Defined Concept of Mass guarantees absolute integrity of performance. Each level precisely calibrated for fabrication accuracy and weight, preventing transmission of negative resonance energy affecting and damaging the purity of audio signal.

The Jubilee turntable was developed to deliver the ultimate in analogue replay, it is a luxury product harnessing advanced analogue design knowledge and appropriate material usage.

The construction of the Jubilee is ingenious, four independent levels make up the turntable chassis.

Each level is precisely calibrated for weight and fabrication accuracy, this unique Defined Concept of Mass guarantees absolute integrity of performance.

This special construction prevents the transmission of resonance energy and interference between each of the individual levels, thus making the drive almost insensitive to external influences.

The levels are firmly anchored to four pillars, each being individually adjustable, this ensures a perfectly stable and correct horizontal level, a necessary requirement for precise audio replay.

The drive system is also unique, the fully electronic motor control consists of a microcontroller, a sine wave generator and an amplifier stage insuring perfect stable voltage and very low total harmonic distortion.

Housed in its own chassis this system allows the following:

- Easy adjustable speed control by pressing a button.
- Menu-controlled fine adjustment of the platter speeds.
- hase-optimized control of the motor for accurate speed stability.
- An easy-to-read display of product functions.



Jubilee

Turntable



The FLUO PRE1 is a dual mono preamplifier housed in a single chassis. Two independent circuit PCBs, one for the left channel and one for the right, providing the power amplifier with the purest undistorted signal information possible. The PRE1 is a perfect balanced match for the FLUO power amplifiers. The JFET balanced input amplifier circuit used in the power amplifiers is also used in the PRE1 for all audio inputs and outputs. The PRE1 also uses the same low-noise power supply technology this ensures a matching sound quality. The PRE1's distortion so low that it is difficult to measure. Measuring the 2nd and 3rd harmonics, the distortion is 0.0002 %. To put this astonishing figure into context it is 114 dB below the signal level. If purity of sound is your objective, and must be maintained, then the PRE1 is the best choice.

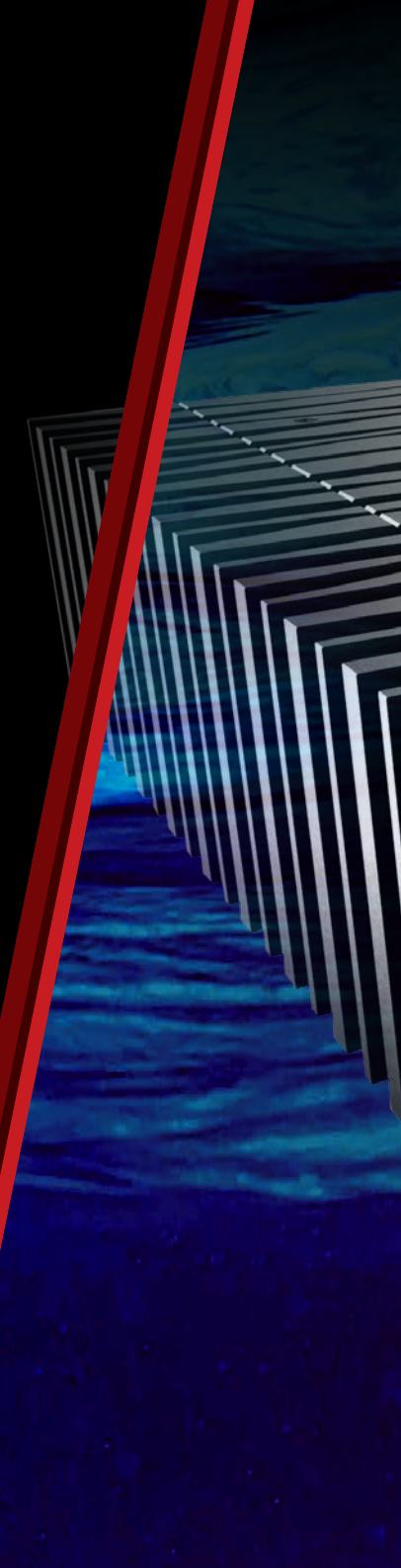
Unfortunately, many other preamplifiers and power amplifiers have a 10kOhm input impedance, which is too low for tube products and most other preamplifiers also mix 10 kOhm and 20 kOhm on the same XLR input socket. FLUO maintains the same 20 kOhm input impedance on both pin 2 and pin 3 of the balanced XLR input sockets to maintain consistent performance across many sources.

Both the FLUO power amplifiers and the PRE1 have a stable and consistent 20 kOhm input impedance on all inputs.

The PRE1's internal 1 kOhm level control reduces the noise level and interference compared to usual 47 kOhm standard. Our 1 kOhm level control allows your music to flow unimpeded through the internal matrix of the preamplifier connection points with absolute purity.

The PRE1 output impedance is a low 75 Ohm unbalanced on the RCA sockets and 150 Ohm on the balanced XLR sockets. This ensures compatibility with most interconnect cables and power amplifier designs.

Dimensions:
485mm x 125mm x 525mm (W x H x D)





PRE1

Designed to
be superior
in every way.

**Unique low-noise power supply
technology ensuring harmonic
distortion of 0.0002 %, 114
dB below the signal level, it's
almost impossible to measure.**

The FLUO DM125 is a dual mono power amplifier housed in a single chassis. The two separate dedicated amplifier circuits, one for the left channel and one for the right channel, drive each of your two loudspeakers using power from their individual and separate capacitors, rectifiers and mains transformer windings combined with a unique Single Die metal-oxide-semiconductor field-effect transistor to deliver musical accuracy across the entire music frequency range. When a big power demand from the right channel reduces the voltage of the right channel capacitors, this does not reduce the voltage of the left channel capacitors. Because they are independent. This architecture offers consistent and ultimate sound delivery. The FLUO design offers better performance than a traditional stereo amplifier limited because both the left and right channels share the same capacitors, and therefore share the drop in voltage reducing dynamic performance.

DM125 will deliver 125 W into an 8 Ohm loudspeaker load, 250 W into a 4 Ohm loudspeaker load and 500 W into a 2 Ohm loudspeaker load. This design works ideally doubling the power when the impedance is halved. The result is control and leading-edge musical dynamics which remain accurate and truthful to the recording irrespective of a low impedance load, for example a 2 Ohm loudspeaker.

Therefore, you will hear pure, non-distorted audio, allowing music to flow without compromise, so that your musical enjoyment spans full frequency range with minimum distortion and maximum dynamics.

The brand styling and industrial design of the FLUO chassis also reduces resonance frequencies. The chassis design, heat sink fins and top of the product diffuse sound waves, even beyond 20 kHz. The carefully considered dimensions act as sound diffusers, and the front panel also acts to diffuse any transmitted sound waves. Generally, products with large flat surfaces reflect high-frequency sound, similar to the way a mirror reflects light. Possibly for the first time, FLUO reduces these problems, enabling the products function at their best without external compromise.

FLUO's advanced protection system offers a well-proven system, which detects any signal outside the limits and automatically mutes the input for 1 second to make sure, that you notice the problem. Then the system tests for 1 ms to test if the problem still exists. If you have removed the problem, i.e., a frayed loudspeaker wire making a short circuit, the amplifier will automatically play music again.

This innovative circuit checks abnormal high frequencies, voltage, current, phase angle and load.



DM125

More power,
and speed,
equals less
resistance.

**Unique Fast Linear Ultimate
Operation (FLUO) circuits need
only 38 Ampere maximum;
driving 2 Ohm loudspeakers
easily. 10% of the maximum
available current.**

The FLUO DM250 is a true dual mono power amplifier housed in a single chassis. Two mono block amplifiers one for the left channel and one for the right drive each of your loudspeakers individually and independently for the greatest performance level. DM250 uses two input power cords to drive 2 separate mains transformers, when very high power is demanded from the right channel, this does not affect the performance of the left channel and vice versa. Because of this architecture the DM 250 moves closer to the performance of the FLUO M500 separate mono block amplifiers. The DM250 uses a unique Single Die metal-oxide-semiconductor field-effect transistor to deliver musical accuracy across the entire music frequency range.

DM250 will deliver 250 W into an 8 Ohm loudspeaker load, 500 W into a 4 Ohm loudspeaker load and 1'000 W into a 2 Ohm loudspeaker load, this final figure being slightly reduced to 900 W due to the mains fuse required.

Therefore, you will hear pure, non-distorted audio, allowing music to flow without compromise, so that your musical enjoyment spans full frequency range with minimum distortion and maximum dynamics.

The brand styling and industrial design of the FLUO chassis also reduces resonance frequencies. The chassis design, heat sink fins and top of the product diffuse sound waves, even beyond 20 kHz. The carefully considered dimensions act as sound diffusers, and the front panel also acts to diffuse any transmitted sound waves. Generally, products with large flat surfaces reflect high-frequency sound, similar to the way a mirror reflects light. Possibly for the first time, FLUO reduces these problems, enabling the products function at their best without external compromise.

FLUO's advanced protection system offers a well-proven system, which detects any signal outside the limits and automatically mutes the input for 1 second to make sure, that you notice the problem. Then the system tests for 1 ms to test if the problem still exists. If you have removed the problem, i.e., a frayed loudspeaker wire making a short circuit, the amplifier will automatically play music again.

This innovative circuit checks abnormal high frequencies, voltage, current, phase angle and load.



DM250

Ultimate
loudspeaker
control.

Output power transistor which goes down to 0.022 Ohm internal resistance, 100 times lower than a difficult loudspeaker load. Absolute grip on accurate musical integrity.

The FLUO M500 represents the ultimate mono block power amplifier from FLUO, each housed in its own chassis. Two separate mono block amplifiers are needed to drive both left channel and right channel of your loudspeakers, individually and independently for the greatest performance level. The M500 have individual dedicated mains transformers, delivering high power to both loudspeakers, which are unaffected by left or right channel demand. Each feature FLUO's unique Single Die metal-oxide-semiconductor field-effect transistor to deliver musical accuracy across the entire music frequency range.

M500 will deliver 500 W into an 8 Ohm loudspeaker load, 1'000 W into a 4 Ohm loudspeaker load and 2'000 W into a 2 Ohm loudspeaker load, this final figure being slightly reduced to 1'800 W due to the mains fuse required.

Therefore, you will hear pure, non-distorted audio, allowing music to flow without compromise, so that your musical enjoyment spans full frequency range with minimum distortion and maximum dynamics.

The brand styling and industrial design of the FLUO chassis also reduces resonance frequencies. The chassis design, heat sink fins and top of the product diffuse sound waves, even beyond 20 kHz. The carefully considered dimensions act as sound diffusers, and the front panel also acts to diffuse any transmitted sound waves. Generally, products with large flat surfaces reflect high-frequency sound, similar to the way a mirror reflects light. Possibly for the first time, FLUO reduces these problems, enabling the products function at their best without external compromise.

FLUO's advanced protection system offers a well-proven system, which detects any signal outside the limits and automatically mutes the input for 1 second to make sure, that you notice the problem. Then the system tests for 1 ms to test if the problem still exists. If you have removed the problem, i.e., a frayed loudspeaker wire making a short circuit, the amplifier will automatically play music again.

This innovative circuit checks abnormal high frequencies, voltage, current, phase angle and load.



DM500

Reducing resonance to produce further clarity.

A chassis design which diffuses resonance sound waves beyond 20 kHz. Considered dimensions act as sound diffusers. No internal or external compromise.

Technical details

PRE1

The following data is based upon 230 V AC mains power.
The idle mains power consumption is 70 Watts.

Mains voltage switchable 115V to 120V or 230V to 240 V AC

Maximum balanced XLR input level 16V RMS

Maximum unbalanced RCA input level 8V RMS

Maximum balanced XLR output level 16V RMS

Maximum unbalanced RCA output level 8V RMS

Distortion THD less than 0,001% 20 Hz to 20 kHz

Noise -118 dBA ref balanced maximum output.

Output impedance 150 Ohm balanced XLR, 75 Ohm unbalanced RCA.

Input impedance 40 kOhm balanced XLR, 20 kOhm unbalanced RCA

XLR Pin 1 ground, pin 2 plus pin 3 minus.

Frequency response 20Hz to 20 kHz -0,5 dB and 5 Hz to 100 kHz - 6dB

Dimensions: 485mm x 270mm x 535mm (W x H x D)

DM125

The following data is based upon 230 V AC mains power.
The idle mains power consumption is 70 Watts.

Output power into an 8 Ohm resistive load is 125 Watts.

Output power into a 4 Ohm resistive load is 250 Watts.

Output power into a 2 Ohm resistive load is 500 Watts short-term,

A 6.3 A slow blow mains fuse limits power consumption at 1'450 Watts long-term for each channel. Therefore, using sine wave tones, the long-term power in 2 Ohm will be less than 500 Watts.

Automatic audio mute should operational temperatures exceed recommended limits.

Automatic protection system does not allow loudspeaker loads below 1.5 Ohms.

The balanced 3-pin XLR input socket has a 40 kOhm input impedance. The 3-pin XLR socket has Pin 2 as plus, Pin 3 as minus, and Pin 1 as ground.

The RCA unbalanced input has a 20 kOhm input impedance.

Due to strong external electromagnetic fields, which can increase the noise levels, we recommend that only shielded signal cables are used.

Dimensions: 485mm x 270mm x 535mm (W x H x D)

DM250

The following data is based upon 230 V AC mains power. The idle mains power consumption is 100 Watts.

Output power into an 8 Ohm resistive load is 250 Watts.
Output power into a 4 Ohm resistive load is 500 Watts.
Output power into a 2 Ohm resistive load is 1'000 Watts short-term.

A 6.3 A slow blow mains fuse limits power consumption at 1'450 Watts long-term for each channel. Therefore, using sine wave tones, the long-term power in 2 Ohm will be less than 1'000 Watts.

Automatic audio mute should operational temperatures exceed recommended limits.

Automatic protection system does not allow loudspeaker loads below 1.5 Ohms.

The balanced 3-pin XLR input socket has a 40 kOhm input impedance. The 3-pin XLR socket has Pin 2 as plus, Pin 3 as minus, and Pin 1 as ground. The RCA unbalanced input has a 20 kOhm input impedance.

Due to strong external electromagnetic fields, which can increase the noise levels, we recommend that only shielded signal cables are used.

Dimensions: 485mm x 270mm x 535mm (W x H x D)

M500

The following data is based upon 230V AC mains power. The idle mains power consumption is 100 Watts per mono block.

Output power into an 8 Ohms resistive load is 500 Watts.
Output power into a 4 Ohms resistive load is 1'000 Watts.
Output power into a 2 Ohms resistive load is 2'000 Watts short-term.

Two 6.3 A slow blow mains fuses in the M500 limit the power consumption at 2'900 Watts long-term. Therefore, using sine wave tones, the long-term power in 2 Ohm will be less than 2'000 Watts.

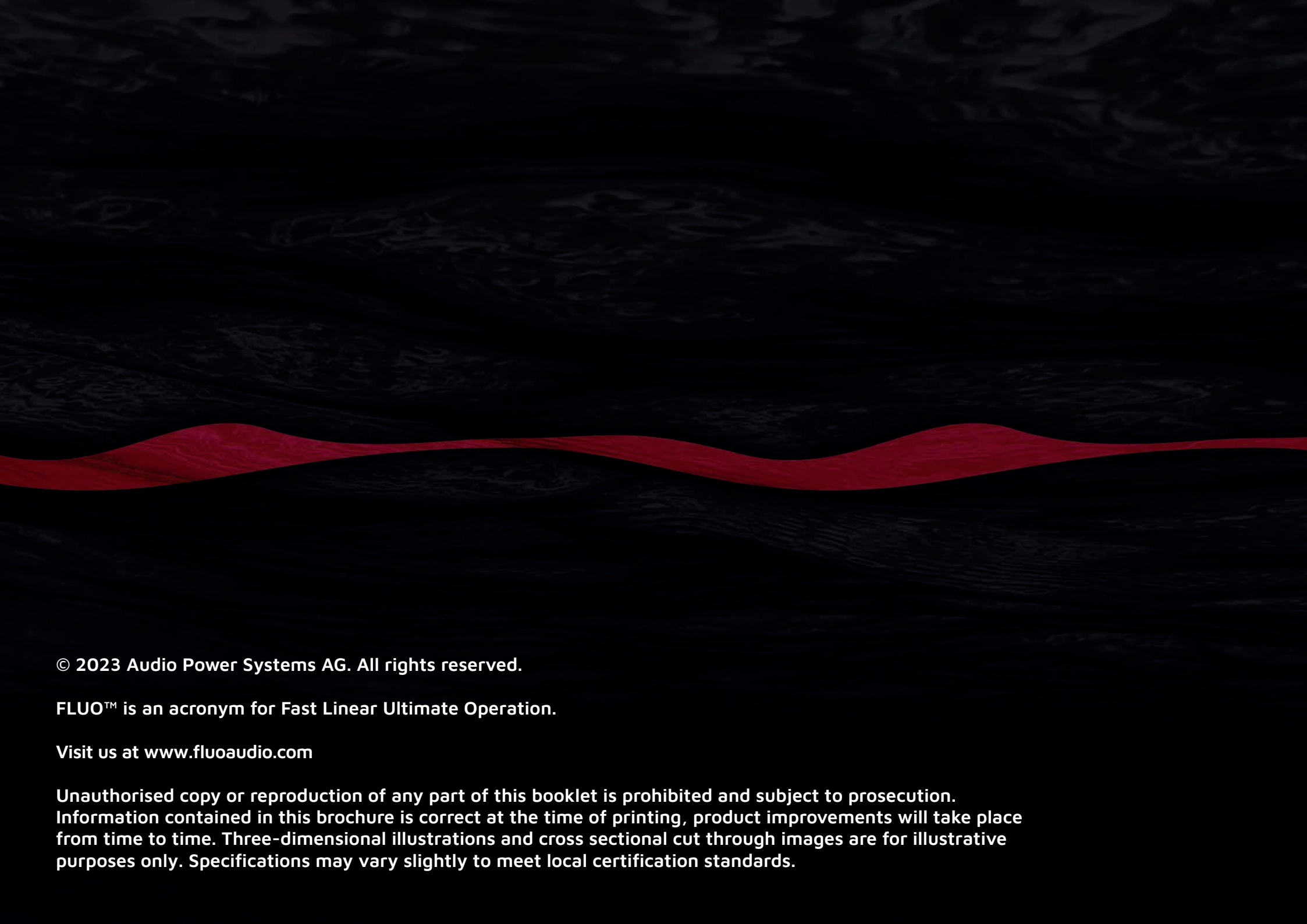
Automatic audio mute should operational temperatures exceed recommended limits.

Automatic protection system does not allow loudspeaker loads below 1.5 Ohms.

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Due to strong external electromagnetic fields, which can increase the noise levels, we recommend that only shielded signal cables are used.

Dimensions: 485mm x 270mm x 535mm (W x H x D)



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FLUO™ is an acronym for Fast Linear Ultimate Operation.

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