

TA 2D power amplifier

THE BASIC PHILOSOPHY

KS AUDIO has been manufacturing loudspeaker systems with dedicated audio controllers since its inception. Furthermore, the brand ensures that from the input signal onwards, all components and parts are perfectly matched to achieve the best performance.

While the speaker systems were initially electronically optimised with analogue SIM controllers, KS AUDIO has switched to a digital version with FIR filters since 1995.

With these FIR filters, not only is the frequency response adjusted, but the entire system is optimised "in time" over the entire frequency range. This results in an almost perfect impulse response. This unique approach, which results in products with the same sound characteristics, is called FIRTEC™.

In contrast to the current PWM/Class D standard in the world of professional amplifiers, KS AUDIO uses Mosfet amplifier technology in combination with a switching power supply, the so-called Class H amplifier technology. KS AUDIO uses 3 positive and 3 negative supply voltages to optimise efficiency.

The reason for this choice is simple, we find the sound of this amplifier technology, especially at high frequencies, better than that of Class D technology with today's standards.

The combination of their unique FIRTEC™ technology, the use of the best components, the MOSFET-amplifier technology and of course the revolutionary acoustic solutions give them an edge in professional audio.

It is not without reason that KS AUDIO is widely known for its outstanding sound.

THE TA 2D

The amplifier with the perfect features: From a simple stereo power amplifier to a digitally controlled 2-way active loudspeaker system with network control and monitoring, every mode of operation is possible. However, the **TA 2D** is best used as a high-performance amplifier for all KS AUDIO subwoofers.



2 channel power amplifier ✓

MOSFET Class H ✓

3 power-supply voltage stages ✓

2 channel FIRTEC™ DSP ✓

48x MOSFET $P_{vmax}=250W$ ✓

Total P_{max} of 12.000W ✓

Up to 6 analog/digital inputs ✓

Optional 8 more inputs by DANTE™ ✓

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The basic programme is ideally matched to the respective loudspeaker type with configurable parameters. The latest product data is available on our website, so that updates can be easily downloaded "in field".

Two independent amplifier channels in highly effective 3-stage Class-H circuitry form the basic configuration of the TA 2D. Each power amplifier has 24 fast FET transistors that guarantee high audio performance with a frequency range up to 50kHz.

The 2U/19" amplifier's output of 2x 2000Wrms is at the limit of what conventional 230V circuits fused with 16A can deliver. Even at 8 ohms, 1000Wrms are available, which means that almost every loudspeaker can be driven with sufficient power.

The power amplifiers are complemented by a digital audio processor with high-quality 27-bit A/D converters in gainstacking technology.

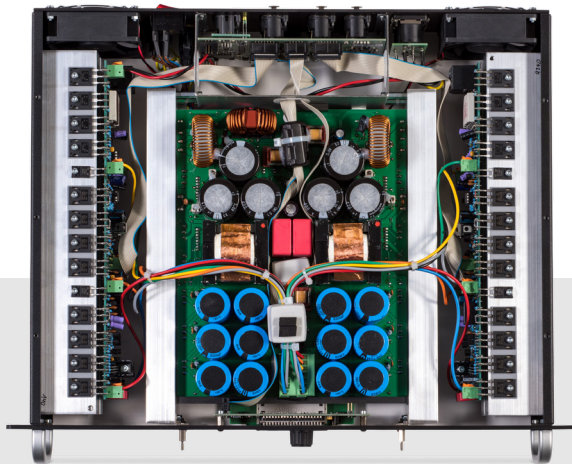
Its features, operation and the DANTE™ option correspond to those of the F MOD.

The signal processing programmes for all KS AUDIO full-range speakers are equipped with FIR filter technology FIRTEC™. This means phase-clean sound reinforcement systems with unsurpassed sound resolution.

The internal memory already includes all KS AUDIO woofers. In addition, USB sticks serve as easy-to-use programme memories with which further speaker data or updates can be loaded. If a system needs to be protected against unauthorised operation, a password can be assigned.

The power supply is provided by a modern wide-range switching power supply with power factor correction. This is generously sized so the TA 2D actually reaches its power specifications and does so for the long term.

Audio specifications



Frequency response	5 - 50.000Hz without controller
Output power per channel (THD+N < 0.5%, both channels driven)	2000Wrms @ 4 Ω 3000Wrms @ 2.6 Ω
S/N Ratio	>115dB
Total Harmonic Distortion	< 0.05% (20 - 20.0000Hz)

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Amplification type and power supply

Amplification Type	MOSFET Class H with 3 voltage rails
Power transistors	48x MOSFET P _{vmax} =250W
Power supply model	Autosensing switch mode power supply with active Power Factor Correction (PFC)
Power input	powerCON in/out 110-240VAC 50-60Hz

Protection and indicators

Mains and power supply	Over and under voltage / over temperature / overcurrent
Power outputs	Over current / DC / short circuit / rail over and under voltage / over temperature
Chanel Indicators	Mute on/off - Signal present - Signal peak
Ethernet Indicators	Data connection - Data flow

Audio connectors

Input Analog Ch. 1 + 2	XLR-3 Female
Link and Output Ch. 1 + 2	XLR-3 Male
AES/EBU Digital input	XLR3 Female - Autoswitch - 2 inputs /4 channels
Amplifier power output Ch. 1 + 2	speakON NL4 - Autoswitch Mode
Ethernet and link KS REMOTE and DANTE™ Network	2 x RJ45, 1000BaseT Ethernet

Physical data

Cooling	Two vari-speed fans, front-to-back airflow
Dimensions (W x H x D)	19" x 2U x 350 mm 19" x 2U x 13.73"
Weight	12kg 26lb