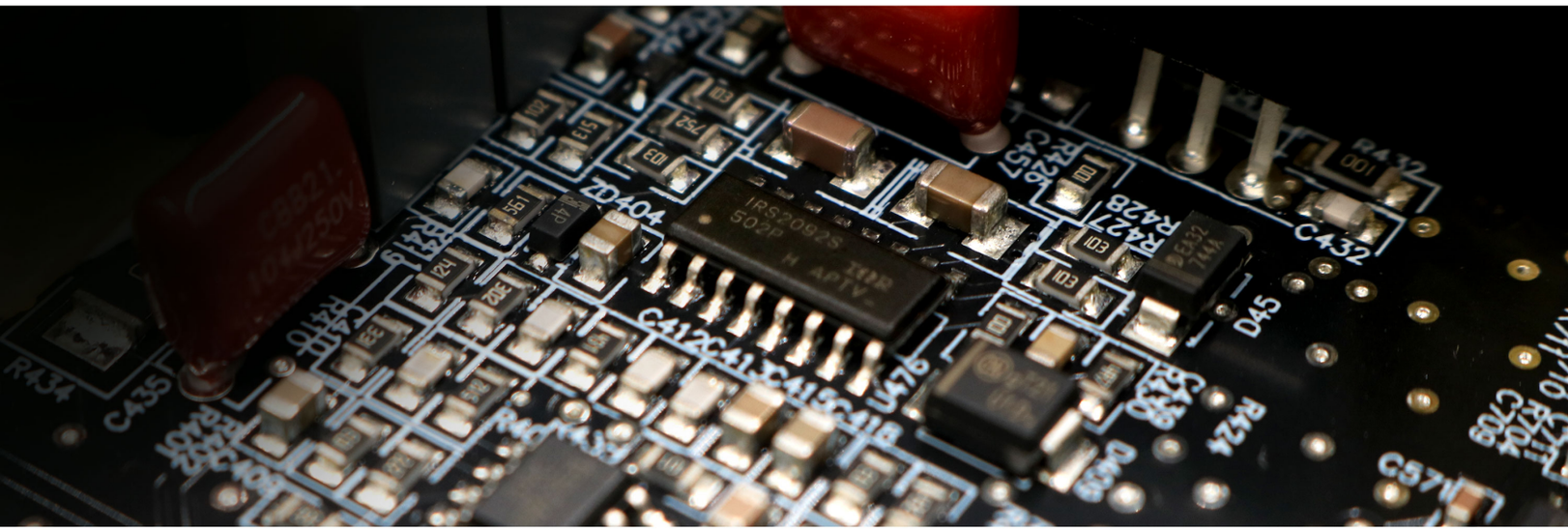
CS (Champion) Series is a digital full –
range amplifier product line launched by SoundMagus in 2022. True to its "Champion" moniker, this serie s has garnered widespread customer approval in the market and stands as a highly successful product ra nge. It showcases a blend of superior sound quality with the comprehensive benefits of digital amplifiers, including high efficiency, compact size, and excellent cost–
effectiveness. It serves as a benchmark product in the digital full–range amplifier industry.

Setting a new benchmark for the overall benefits of Class D digital amplifiers

These high-fidelity, high-resolution compact full-range Class D amplifiers have completely transformed the perception that Class D amplifiers offer inferior sound quality. They achieve a comprehensive set of advantages, including a small form factor, high efficiency, excellent sound quality, and high cost-effectiveness.

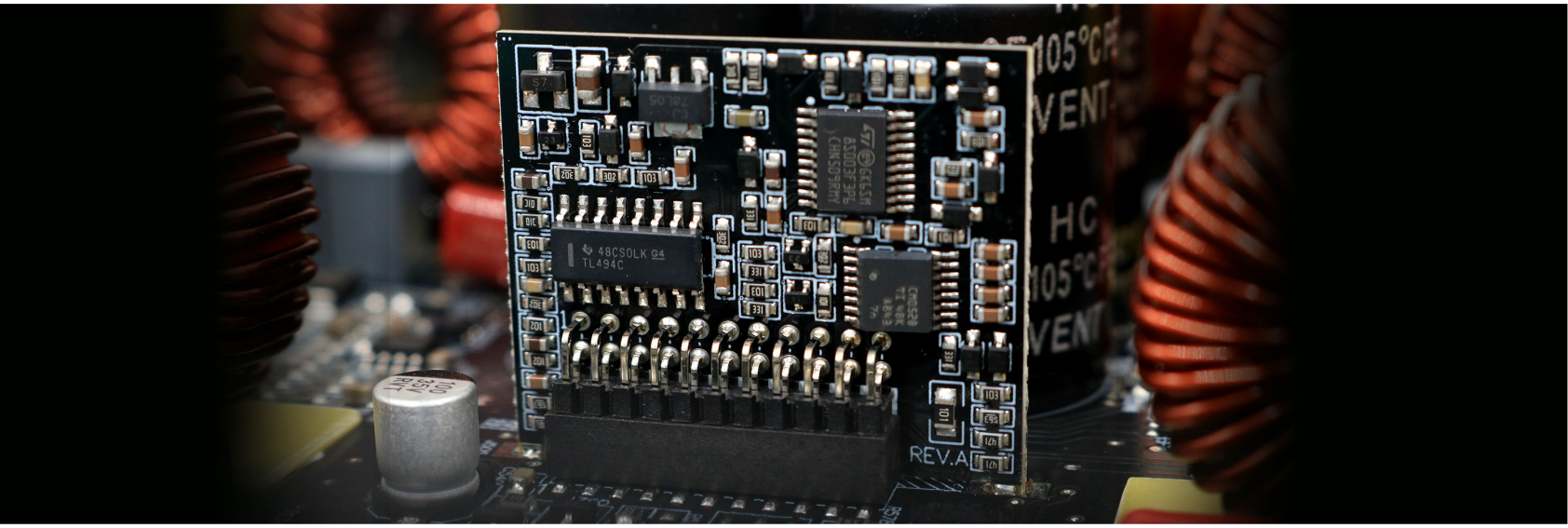


Pushing the chip to its limits

The four-channel amplifiers in the CS series are a perfect application of the Infineon IRS2093 and IRS2092 solution. CS1600.4 can stably output an official theoretical maximum power of 4 x 300W RMS @ 4 ohm.

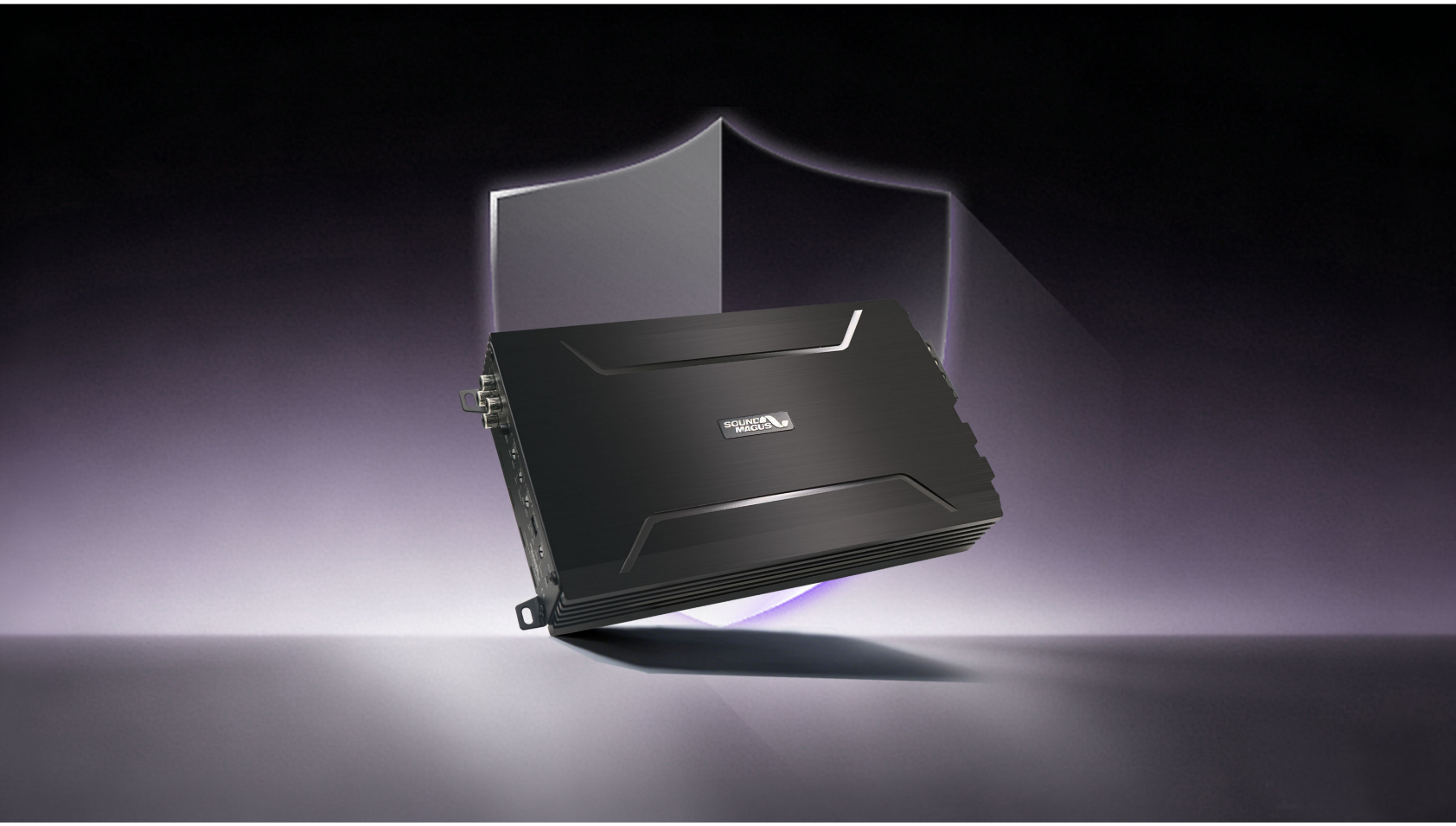
Exquisite aluminum heatsink processing

Compact design makes installation easy. CS amplifiers feature a compact, small-sized, and thin profile, along with a high-grade brushed aluminum heatsink and CNC-engraved top decorative grooves。



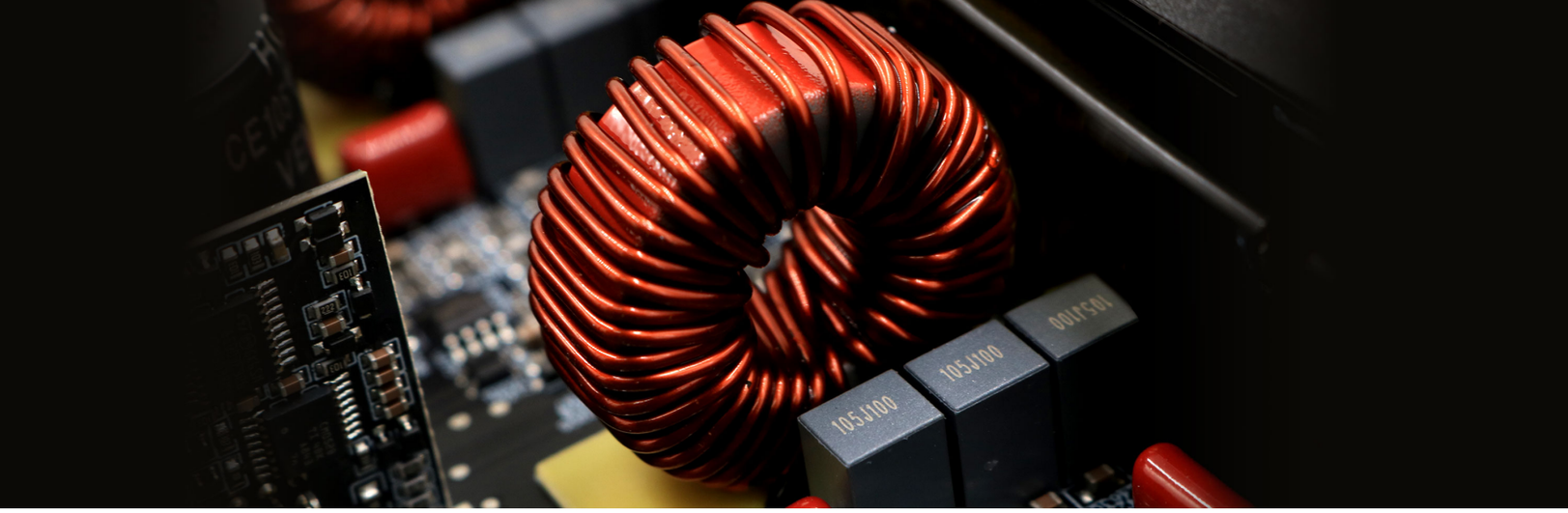
Intelligent and precise power supply control

SoundMagus's unique MCU-controlled power management module enables precise control over the amplifier's power-on, power-off, and multiple protection functions. Especially when multiple amplifiers work together in an audio system, they exhibit extremely high consistency and synchronization



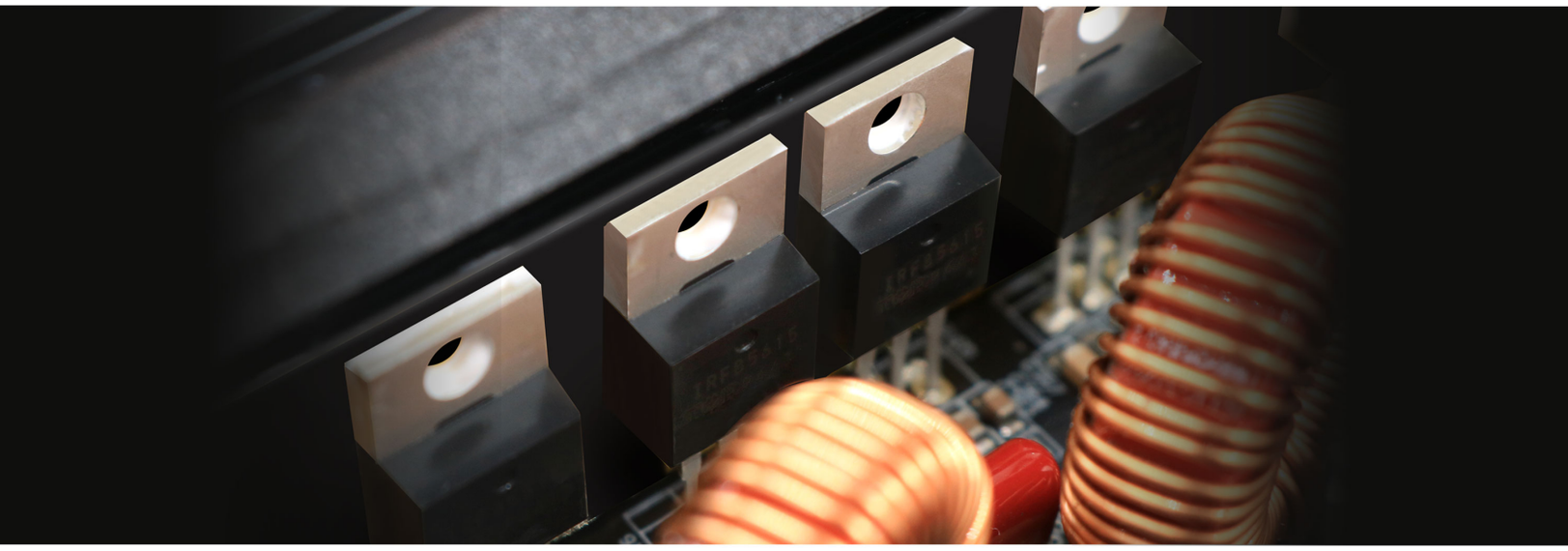
Comprehensive and perfect protection functions

All CS series amplifiers are equipped with comprehensive and perfect self-protection functions, including under-voltage protection, over-voltage protection, overload protection, overheating protection, output short-circuit protection, and DC output protection.



Audio-dedicated high-specification inductor

CS series amplifiers utilize custom-made toroidal inductors with audio-specific magnetic core materials of special formulations. They also employ large-diameter, high-temperature-resistant enameled wires that far exceed the specifications of similar products, ensuring stable and reliable performance during long-term high-power output.



Audio-dedicated MOSFETs

As the key amplification components in the amplifier circuit, all CS series amplifiers use audio-specific low-internal-resistance MOS high-speed switching tubes from Infineon in Germany.

High-power toroidal transformers

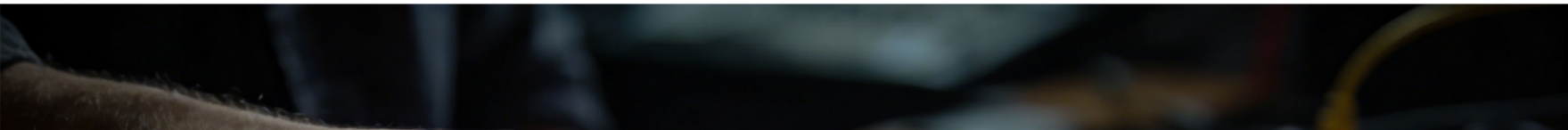
The custom-made high-power toroidal transformers wound with multiple strands of pure copper enameled wires are the fundamental guarantee for the amplifiers' ability to output full power continuously over long periods.

High-specification large-capacity filter capacitors

Low-internal-resistance, 105°C high-temperature-resistant large-capacity electrolytic capacitors store sufficient current that can be instantly supplied to the amplifier circuit.

Dedicated input and output terminals

CS amplifiers feature reliable large-area contact press-fit power input and speaker output terminals with protective casings



pre-amplifier functions.

Equipped with practical and feature-rich pre-amplifier adjustment functions, allowing for the adjustment of high-pass, low-pass, and full-pass modes.

Support both high and low-level signal inputs

Support multi-channel RCA low-level inputs and can be switched to support high-level signal inputs

SPECIFICATIONS

Model	CS550. 4	CS800. 4	CS1200. 4	CS1600. 4
RMS Power at 14.4V (THD < 1%, 1KHz)				
2Ohm Load	130W x 4	210W x 4	300W x 4	400W x 4
4Ohm Load	80W x 4	130W x 4	210W x 4	300W x 4
Bridged 4Ohm Load	260W x 2	360W x 2	600W x 2	800W x 2
Peak Power 4Ohm Load	260W x 4	360W x 4	600W x 4	800W x 4
Features				
Input Level	PRE INPUT : 0.35~3.5V / SPK INPUT : 0.7~7V			
Frequency Response	10Hz~30KHz			
X-over Type	LPF/FULL/HPF			
LPF	GROUP A: 0 ~ 300Hz GROUP B: 50Hz ~ 300Hz			
Subsonic/HPF	50Hz ~ 300Hz			
Bass Boost Frequency	NA			
Bass Boost Level	NA			
Intelligent Power Management System	Overload protection, Shortcircuit protection , Overheat protection, Low voltage protection, Over voltage protection.			
S/N Ratio	>95dB	>95dB	>91dB	>93dB
Minimum Load	2Ohm			
Voltage Range	7.5V ~ 16V			
Optional Bass Remote	NA			
Components & PCB	SMT Parts / Double-Sided FR-4 PCB			
DIMENSION				
Height (mm)	46			
Width (mm)	155			
Length (mm)	165	165	186	256

Model	CS1200.4
RMS Power at 14.4V(THD < 1%, 1KHz)	
2Ohm Load	300Wx4
4Ohm Load	210Wx4
Bridged 4Ohm Load	600Wx2
Peak Power 4Ohm Load	600Wx4
Features	
Input Level	PREINPUT:0.35~3.5V/SPKINPUT:0.7~7V
Frequency Response	10Hz~30KHz
X-over Type	LPF/FULL/HPF
LPF	GROUP A: 0~300Hz GROUP B: 50Hz~300Hz
Subsonic/HPF	50Hz~300Hz
Bass Boost Frequency	NA
Bass Boost Level	NA
Intelligent Power Management System	Overload protection, Shortcircuit protection, Overheat protection, Low voltage protection, Over voltage protection.
S/N Ratio	>91dB
Minimum Load	2Ohm
Voltage Range	7.5V–16V
Optional Bass Remote	NA
Components & PCB	SMT Parts/Double–Sided FR–4 PCB
DIMENSION	
Height (mm)	46
Width (mm)	155
Length(mm)	186

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