

Digital transmission professional digital power amplifier

TC-X41200



Description

The product is a professional digital power amplifier with a built-in high-performance DSP audio processor and network transmission protocol. It supports long-distance audio transmission and integrates central control functions such as remote monitoring of device status and control of device power on and off. It adopts variable oscillation modulation technology, multiple feedback regulation technology and innovative output power control technology to give the power amplifier an ultra-high efficiency of over 95% and excellent stability. It is specially designed for large-scale sound reinforcement, touring performance multi-functional halls, etc.

Features

- *It adopts a new panel design, a standard 19-inch 1U cabinet structure, and is equipped with a 3.7-inch capacitive screen.
- *It has a built-in industrial-grade dedicated network audio decoding chip, adopts a switching power supply and Class D digital amplifier design, supports a wide voltage, and has low distortion and high efficiency.
- *It adopts network transmission protocol and has built-in 4 -way network transmission channels to support long-distance audio transmission.
- *It integrates DSP audio processing functions, with 15-band parametric equalizer, limiter, noise gate, high-pass and low-pass filters, and channel delay functions. The channel delay can be set from 0 to 2000ms; the software can automatically calculate the required delay time according to the on-site delay distance.
- *Supports switching of audio input modes: including mixed input mode, network audio input mode, and local audio input mode; also has digital-analog backup (in network priority mode, network audio is played first, and when the network audio is disconnected, it automatically switches to analog audio) and analog-digital backup mode (in analog priority mode, analog audio is played first, and when the analog audio is disconnected, it automatically switches to network audio).
- *It has multiple built-in working modes: including fixed resistance, fixed voltage, audio matrix and bridge, which can be switched freely to meet different user needs; fixed resistance mode supports 16 ohms, 8 ohms, 4 ohms, and 2 ohms; bridge mode supports 16 ohms, 8 ohms, and 4 ohms; constant voltage mode supports 70V or 100V; and the minimum supported load is 2 ohms.
- *Integrated equipment monitoring status display function, real-time display of each channel's working status, temperature, power, real-time voltage, current, mains voltage, mains current, channel volume, audio input mode and other status.
- *The input sensitivity provides two settings: 1V/2V.
- *Supports multi-device cascading, and can remotely monitor the usage status of multiple devices and control devices.
- *Equipped with intelligent peak clipping limiter to ensure that the power module and speaker system operate within a safe range.
- *The soft start design is adopted to prevent the machine from absorbing large current from the power grid during startup and avoid interfering with other electrical equipment.
- *It has functions such as overvoltage protection, undervoltage protection, overcurrent protection, DC protection, output short circuit protection, temperature controlled fan, etc.
- *Equipped with a temperature-controlled fan, it starts to run when the machine is turned on. The fan accelerates as the temperature rises and runs at full speed at about 60°C.
- *It has a centralized control function and supports software remote adjustment of audio volume, channel switching, power on and off, and multi-device control. It can also connect to the central control system through the network to display the device usage status, temperature, power, voltage, and current information in real time, and support controlling the power amplifier power on and off and adjusting the volume.



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Specification

Output power	Stereo 16Ω : $4 \times 600W$; Stereo 8Ω : $4 \times 1200W$; Stereo 4Ω : $4 \times 2200W$; Stereo 2Ω : $4 \times 3600W$;
	Bridged 16Ω : 2 × 2400W ; Bridged 8Ω : 2 × 4400W
Constant voltage 70V	4 × 1200W
Constant voltage 100V	2×1500W
Input sensitivity	2.2dBu(1V)/8.2dBu(2V)
Input impedance	10 k Ω unbalanced/ 20 k Ω balanced
Frequency response (@1W power)	20Hz-20kHz ±1dB @8Ω
THD+N (@1/8 power)	≤0.05%
Separation (@1 kHz)	≥85dB
Damping coefficient (@1 kHz)	≥600@8 ohms
Signal-to-noise ratio (A-weighted)	≥108dB
Input voltage	~220V-240V 50Hz/60Hz
Power consumption	3000W
Product dimensions (W×D×H)	484×484×44mm
Product weight	10.9kg

Notes

 $^{^* \} Power is \ measured \ according \ to \ CEA-2006-B/CEA-490-A \ using \ a \ 20ms \ pulsed \ 1kHz \ sine \ wave \ with \ 1\% \ total \ harmonic \ distortion \ .$

 $^{^{\}star}$ Measured according to GB4943.1-2022 test method (at 1/8 power) .