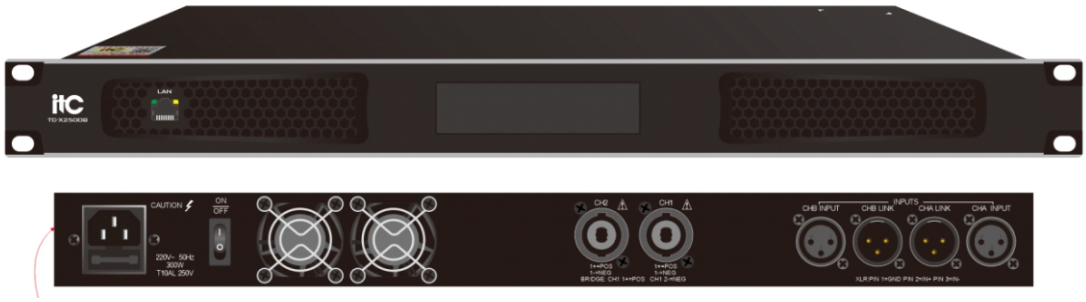
Performance-grade professional digital power amplifier series

TC-X2500, TC-X2700 TC-X21000 TC-X21200 TC-X22000



Description

The product is a Z-DT professional digital power amplifier with a built-in high-performance DSP audio processor and network data 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, giving the 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, 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 data transmission protocol, has built-in 2-way network data transmission channels, and supports long-distance audio transmission.
*Integrated DSP audio processing function, with 15-band parametric equalizer, limiter, noise gate, high-pass and low-pass filters, channel delay function, channel delay can be set 0~2000ms; 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; it 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 modes (in analog priority mode, analog audio is played first, and when the analog audio is disconnected, it automatically switches to network audio).
*Built-in multiple working modes: including fixed resistance, fixed voltage and bridge, which can be switched freely to meet different user needs; fixed resistance mode supports 16 ohms, 8 ohms, 4 ohms, 2 ohms; bridge mode supports 16 ohms, 8 ohms; constant voltage mode supports 70V or 100V; minimum support 2 ohm load.
*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 2 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 work within a safe range.
*The soft start design is adopted to prevent the power grid from absorbing large current when starting up, avoiding interference 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 supports controlling the power amplifier on and off and adjusting the volume .

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Specification

Model	TC-X21000	TC-X21200	TC-X22000
Output power/8Ω	2*1000W	2*1200W	2*2000W
Output power/ 4Ω	2*1300W	2*1800W	2*2000W
Output power/ 2Ω	2*2600W	2*3400W	2*3900W
Bridge 16Ω	2*4350W	2*4800W	2*5800W
Bridge 8Ω	3000W	3600W	4000W
Bridged 4 Ω	5100W	6500W	7800W
Constant voltage 70V	2* 1000W	2* 1200W	2* 1500W
Constant voltage 100V	1*1250W	1*1500W	2* 2000W
Input sensitivity	2.2dBu(1V)/8.2dBu(2V)	2.2dBu(1V)/8.2dBu(2V)	2.2dBu(1V)/8.2dBu(2V)
Input impedance	10KΩ unbalanced/20KΩ balanced	10KΩ unbalanced/20KΩ balanced	10KΩ unbalanced/20KΩ balanced
Frequency response (@1W power)	20Hz-20KHz ±1dB @8Ω	20Hz-20KHz ±1dB @8Ω	20Hz-20KHz ±1dB @8Ω
THD+N(@1/8 power)	≤0.05%	≤0.05%	≤0.05%
Separation(@1KHz)	≥80dB	≥80dB	≥80dB
Damping coefficient(@1KHz)	≥600@8 ohms	≥600@8 ohms	≥600@8 ohms
Signal-to-noise ratio (A-weighted)	≥110dB	≥110dB	≥110dB
Input voltage	AC220V-240V 50Hz/60Hz	AC220V-240V 50Hz/60Hz	AC220V-240V 50Hz/60Hz
Power consumption	1300W	1600W	2400W
Product size	44*484*399	44*484*399	44*484*399
Product weight	7.7kg	7.9kg	8.5kg

*This power is measured according to CEA-2006-B/CEA-490-A standard using 20ms pulse 1kHz sine wave at 1% total harmonic distortion

**Measured according to GB4943.1-2022 test method (at 1/8 power)

Specification

Model	TC-X2500	TC-X2700
Output power/8Ω	2 * 500W	2*700W
Output power/ 4Ω	2*800W	2*1200W
Output power/ 2Ω	2*1300W	2*1800W
Bridge 16Ω	1000W	1400W
Bridge 8Ω	1600W	2400W
Bridged 4 Ω	2600W	3600W
Constant voltage 70V	1*7 00W	2* 700W
Constant voltage 100V	1* 700W	1*1000W
Input sensitivity	2.2dBu(1V)/8.2dBu(2V)	2.2dBu(1V)/8.2dBu(2V)
Input impedance	10KΩ unbalanced/20KΩ balanced	10KΩ unbalanced/20KΩ balanced
Frequency response (@1W power)	20Hz-20KHz ±1dB @8Ω	20Hz-20KHz ±1dB @8Ω
THD+N(@1/8 power)	≤0.05%	≤0.05%
Separation(@1KHz)	≥75dB	≥75dB
Damping coefficient(@1KHz)	≥ 600 @ 8 ohms	≥ 600 @ 8 ohms
Signal-to-noise ratio (A-weighted)	≥ 105 dB	≥ 105 dB
Input voltage	AC220V-240V 50Hz/60Hz	AC220V-240V 50Hz/60Hz
Power consumption	450W	70 0W
Product size	44*482.6* 399	44*482.6* 399
Product weight	6.4Kg	6.5Kg

*This power is measured according to CEA-2006-B/CEA-490-A standard using 20ms pulse 1kHz sine wave at 1% total harmonic distortion

**Measured according to GB4943.1-2022 test method (at 1/8 power)