



Audio Processor TS-DP1616X

Digital audio processor software TS-YPCLR software V3.056



Description

A high-performance audio processor with 16 analog inputs and 16 analog outputs. It also has 8 digital audio channels and supports network audio transmission, providing users with flexible audio processing solutions and convenient remote control capabilities. It is mainly used in professional sound reinforcement scenarios and can meet the needs of conference rooms, courtrooms, auditoriums, multi-function halls, performances, classrooms and other places.

Features

- *High-performance 64-bit DSP processor (1GHZ main frequency), 32-bit/48KHz AD/DA, professional DSP processing, providing excellent high-quality sound.
- *It has a 24-input and 24-output audio matrix, and the input sensitivity can be adjusted according to different sound sources. Each input supports 48V phantom power supply and can be individually configured to be turned on or off, which is flexible and convenient.
- *It has a ducker function, which is used to automatically duck the microphone speech during background music, and provides a variety of parameter settings for flexible on-site use.
- *It has an automatic microphone gain function, which is used to control the dynamic range of the microphone's pickup signal to achieve consistent sound quality near and far.
- *It has intelligent mixing function, including gain sharing mixing and threshold automatic mixing. The input channel can choose whether to participate in intelligent mixing individually. The corresponding mixing mode can be selected according to the application requirements of different scenarios. It can effectively solve the pain points such as unstable sound reinforcement system and easy howling caused by multiple microphones.
- *It has equalizer function, providing parametric equalizer and graphic equalizer. Each input/output has 12-band parametric equalizer/10-band graphic equalizer/15-band graphic equalizer/31-band graphic equalizer to choose from. The parametric equalizer supports three types of high shelf, low shelf and peak filter, and the graphic equalizer supports single-point bandwidth adjustment.
- *It has a frequency divider function and provides three filter types: Bessel, Linkwich-Rayleigh, and Butterworth for selection. It also supports 6/12/18/24/32/40/48db/oct slope settings, and the filter is adjustable across the entire frequency band.
- *It has an expander function to expand the dynamic range of the signal and is often used to eliminate the background noise of the device.
- *It has a compressor function, compresses the dynamic range of the signal, and is often used to compress the size of the output signal.
- *It has a limiter function to limit the size of the output signal to prevent excessive signals from damaging the sound reinforcement equipment.
- *It has a delay function, providing a maximum delay adjustment of 2000ms, which is used to adjust the delay of each output signal so that each audio signal remains synchronized when reaching the listener's ears.
- *It has echo cancellation function, which can be used for remote audio and video conferencing to eliminate echo and increase voice clarity.
- *It has a noise cancellation function, which can effectively eliminate environmental noise such as air conditioning sound, fan sound, etc., and improve voice clarity.
- *It has feedback suppression function and two processing solutions: notch filter + frequency shifter, which can effectively solve the problem of acoustic feedback.
- *Extremely low system processing delay, less than 3ms.
- *The panel has a 2-inch IPS true-color display that displays device network information, real-time level, channel mute status, and other status.
- *The panel has a USB interface and supports multimedia storage, which can store recording or playback.



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- *Supports scene preset, import, export, and supports 8 scenes.
- *It has the function of restoring factory settings.
- *It has an RS-232 interface, which can be used to connect to an external central control system to achieve centralized management and control.
- *It has RS-485 interface, which can be connected to the central control system and camera tracking system, and can realize automatic camera tracking function.
- *It has 8-channel programmable GPIO control interface (customizable input and output).
- *Support channel copy and paste functions.
- *Ethernet multi-purpose data transmission and control port can support real-time management of single and multiple devices.
- *Supports access to the device through PC software, and comes with built-in management and control software: the software interface is intuitive and graphical, and can work in Windows 7, 8, 10 and other system environments.
- *Supports operation and control through Android phones and tablet APP software, including device login, scene switching, input and output, matrix routing and channel settings.
- *Supports automatic power-off protection memory function.
- *It has 16 analog inputs and 16 analog outputs, as well as 8 digital input and output audio channels that can be networked for audio transmission.

Specification

Input channels	Preamplifier, signal generator, 12-band parametric equalizer, input module, input equalizer, expander, compressor, automatic gain, ducker, feedback suppression, echo cancellation, noise cancellation
Output channel	31-band graphic equalizer, limiter, output equalizer, delay, output module
Processor	48k Hz sampling frequency, 64 -bit DSP processor ; 32-bit A/D and D/A conversion
Phantom power	DC 48V
Frequency response	20Hz ~ 20KHz
Total Harmonic Distortion + Noise	≤0.002% OUTPUT=18dBu/1kHz
Signal-to-Noise Ratio	≥110dB@1kHz 18dBu (A-weighted)
Channel separation	≥100dB@1kHz 18dBu (A-weighted)
Input impedance (balanced)	Balance: 20KΩ
Maximum output impedance (balanced)	Balanced: 100Ω
Input range	≤+18dBu
Howling search and suppression method	Fully automatic notch
Notch filter	24 (static points and dynamic points can be configured)
Q value range	10-50
Frequency resolution	1Hz
Howling	0.1—0.5S
FFT length	1024
Transmission gain	4 — 10 dB
System gain	0dB
Crossover	With Butterworth, Bessel, Linkwich-Rayleigh three high and low pass filters
Equalizer	31-band graphic equalizer + 12-band parametric equalizer
Display	2-inch IPS true color display, resolution 320×240
Power supply range	AC 110V-240V 50-60Hz
Power consumption	≤ 40W
Operating temperature	-10°C ~ + 45 °C
Relative humidity	20% ~ 80% relative humidity, no condensation
Cool down	Fan forced cooling
Product size (L × D × H)	484×298.2×45mm
Net weight	3.4 kg
A/D dynamic range	116db
Digital/Analog Dynamic Range	120 db