### **DBOX** X

# **Digital Signal Processor**



#### **Product Introduction**

The device supports analog channel 4 into 4 out, USB-C Sound Card, comprehensive matrix mixing function, equipped with high-performance A/D D/A converter and 32-bit floating-point DSP processor, support 24bit/48KHz sampling frequency, restore high-quality sound, user-friendly operation software interface, easy to operate and powerful performance. Mainly used in a variety of large places, can meet the theater, concert halls, remote video conferencing, stadiums, churches, conference centers, theme parks, public sound reinforcement systems and other aspects of the application needs.

#### **Product Features**

- Highly integrated, integrating a variety of traditional Analog audio processing equipment in a Digital audio processor;
- ➤ High-performance 32-bit floating-point DSP processor, all-digital processing, fast response to feedback cancellation, echo cancellation, noise suppression and other core algorithms;
- → High-performance A/D, D/A converter, 24bit/48KHz sampling frequency, high-quality Analog
   → Digital, Digital → Analog conversion;
- ➤ 4 Analog input channels and 4 Analog output channels, very small distortion and ultra-low background noise;
- > Supports Dante network transmission, which makes audio transmission more stable and faster;



- Humanization, graphical, intuitive and easy-to-operate control software interface;
- Comprehensive matrix mixing functions;
- > Scene storage is different from the Analog equipment is one of the most practical and significant features, can store 8 complete scenes, all the scenes can be exported to an external storage device for storage backup, so that the later call at any time.

#### **Functions**

- ❖ Inputs per channel: Preamplifier, 5-band Parametric Equalizer, Compressor, Ducker, AFC, AEC, ANS;
- ♦ Outputs per channel:31-band Graphic Equalizer, Limiter;
- ♦ Display shows the IP address;
- ♦ Input mute button, phantom power button;
- ♦ Output mute button, invert button per channel;
- ♦ Ethernet multi-purpose data transmission and control port, can support real-time management of single and multiple devices;
- ❖ Intuitive image, simple and easy to understand the graphical software control interface, for customers to bring fast, real-time operating experience;
- Support PC client software control, machine built-in client, support for online downloads;
- ♦ USB Type-C interface, support USB Audio Card;
- ♦ Configuration of bi-directional RS232 interface, RS485 interface, standard Ethernet control interface;
- ♦ POE mode power supply, can be used with 802.3af/at standard POE switch;
- ♦ Support 8 groups of scene presets, scene create, save, delete and other functions;
- ♦ Intuitive, graphical software control interface, works on Windows XP, 7, 8, 10, 11, etc.;
- ♦ Supports 4×4 Dante channels.



## **Specification**

Category	Parameter Item	Parameter Description
Peripherals	Input Interfaces	4 Analog and 4 Dante
	Output Interfaces	4 Analog and 4 Dante
	Display	Displays the device IP address
	Control Interfaces	2 RJ45 interface, 1 RS232 interface, 1 RS485 interface
Audio	Processor	TI 456MHz FLOPS dual-core 32-bit DSP processor; 24-bit A/D and D/A converter, 48kHz sampling rate
	Input Channel	Functional module: Preamplifier, 5-band Parametric Equalizer, Compressor, Ducker, Acoustic Feedback Canceler (AFC), Acoustic Echo Canceler (AEC), Adaptive Noise Suppressor (ANS), Ducker. Physical interface: Balanced Phoenix terminals.
	Output Channel	31-band Graphic Equalizer, Limiter. Physical interface: Balanced Phoenix terminals
	Phantom Power	DC 48V
	Input Impedance	Balanced: 20KΩ
	Output Impedance	Balanced: 100Ω
	Common Mode Rejection Ratio	52dB@50Hz
	Frequency Response	20Hz∼20KHz, ±0.15dB
	Noise Floor	-89dBu
	Signal-to-Noise Ratio	105dB



	THD+N	≤0.003% @1kHz, +4dBu
	Channel Isolation	100dB@1kHz, 4dBu
	Input Range	≤+18dBu (A-Weighting)
	Equalizer	- Parametric Equalizer: Frequency: 20 to 20kHz, Gain: -15 to +15dB, Bandwidth: 0.02 to 4 - Graphic Equalizer: Frequency: 20~20kHz, Gain: -15~+15dB
	Maximum Output Level	18dBu
	Maximum Input Level	18dBu
	Analog/Digital Dynamic Range	120dB
	Digital/Analog Dynamic Range	120dB
General specification	Operating Voltage	Power adapter input: AC 100V~ 240V, 50Hz/60Hz; Output: DC 12V/2A; OR POE power supply
	Maximum Power	15W
	Operating Temperature and Humidity	-10℃~40℃, 10%~90%RH, No condensation
	Chassis	1/2U
	Product Dimensions (L×W×H)	216mm×190.5mm×44mm
	Net weight	1.2kg
	Package Dimensions (L×W×H)	330mm×230mm×70mm
	Gross Weight	1.6kg

