



TENDZONE

# WebGem 0808D

DIGITAL AUDIO PROCESSOR



## WeGem 0808D DSP Overview

Tendzone's WebGem 0808D DSP provides an extensive range of adaptable audio DSP tools specifically designed for AV integrators. It comes with eight channels for analog audio input and output, in addition to a 16x16 model supporting Dante™ signal extension, which caters to diverse audio processing needs. The DSPs feature an easy-to-use Web-UI and support standard bidirectional control via RS-232, TCP/IP, and GPI, allowing for seamless integration with various third-party control systems. Users can also create a custom web control interface for local room management that works across various platforms such as Windows, iOS, macOS, and Android. The WebGem series from Tendzone combines impressive audio processing capabilities with flexible control solutions, making it perfect for AV integration in settings like conference rooms, educational facilities, hotels, and courtrooms.

## Performance

- This unit offers 8 channels of balanced microphone/line inputs equipped with a soft switch for 48V phantom power.
- It is designed with 8 balanced line outputs and provides 16x16 Dante network audio compatibility with AES67.
- Enjoy remarkable sound quality at 48 kHz and 24-bit resolution.
- The preamp includes gain optimization with settings at 0dB, 10dB, 20dB, 30dB, and 40dB, accommodating both MIC and LINE levels.
- There is a USB2.0 audio interface for recording and playback using a USB drive.
- The USB-B sound card interface supports 2x2 audio and can connect with various devices on Windows, iOS, Android, and HarmonyOS for two-way audio transmission.
- The device incorporates Adaptive Echo Cancellation (AEC), which swiftly removes echoes that arise during video conferencing.
- Additionally, Adaptive Feedback Cancellation (AFC) applies advanced algorithms to each microphone for efficient feedback suppression.
- Integrated Automatic Gain Control (AGC) maintains steady output volume, regardless of the speaker's proximity to the microphone.
- The intelligent Ducker function helps to reduce background music levels easily, placing emphasis on the vocals.
- A proactive limiter responds instantly, ensuring protection for downstream equipment.
- The system features gain-sharing automatic mixing (AM) and threshold-based automatic mixing (GAM) for easy oversight of multiple microphones.
- Users can define ranges for input and output levels, setting maximum and minimum values for better usability.
- The system includes a user-friendly graphical software control interface structured on B/S architecture, allowing

adjustments via a browser in English or Chinese.

- The user interface can be customized and operates effectively across multiple platforms including Android, iPad, Windows, HarmonyOS, and KylinOS.
- A 1.8-inch color LCD provides valuable information such as device name, IP address, input/output levels, mute status, current scene, and software version.
- It features 8 configurable GPIO interfaces, which can be assigned as inputs or outputs through software.
- The open design allows for third-party control protocols using UDP or RS-232 for device management and control.

## Application

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|---------------------|------------------|------------------|
| ➤ Meeting Rooms     | ➤ Hotels         | ➤ Courtrooms     |
| ➤ Conference Center | ➤ Lecture Halls  | ➤ Classrooms     |
| ➤ House of Worship  | ➤ Training Rooms | ➤ All Hand Space |

## SPECIFICATIONS

General Performance	
Frequency Response(A/D/A)	20Hz~20kHz (±0.5dB)
Sampling Rate	48kHz,24bit
Dynamic Range(A/D/A)	>110dB, A-weighted (20Hz-20kHz@0dB Gain)
THD	≤0.005%@1kHz, +4dBu
Latency (A/D/A)	5.8 mS, inputs routed to outputs
Noise Floor (A-weighted)	≤-90dBu
Crosstalk	≤-105dB@+20dBu, 1kHz
S/N Ratio	>110dB, A-weighted (20Hz-20kHz@0dB Gain)
Channel Isolation	≤-105dB@+20dBu, 1kHz
Preset Numbers	50
Audio Input/Output	
Model	WebGem 0808D
Connector	3.81 mm terminal blocks
Number of Analog Channels	8in8out
Number of Dante Channels	16in16out
Phantom Power	DC 48±6V,10mA
Input Impedance	2KΩ balance
Output Impedance	200Ω balance
Maximum Input Level	20dBu
Maximum Output Level	20dBu

Max Input Gain	40dB
<b>Front Panel</b>	
Indicator Light	Power/RUN/LINK
Display Screen	1.8" colour LCD display Displays device name, IP address, input/output level and mute status, current scene, software version
Select Button	A push-to-turn button
<b>Rear Panel</b>	
UAC(USB Bidirectional Audio)	2x2 sound card, sampling rate 48kHz,16bit, interface type USB-B, data transmission protocol USB2.0;
USB	Interface type is USB-A and the data transfer protocol is USB2.0. Support recording and playback, can play MP3/WAV format audio files, support FAT32 format U disk, recording file format WAV
Dante PRIMARY&SECONDARY	/ 2X1000MRJ-45; 16x16: Support redundancy, switching mode;
RS232	4pin 3.81Phoenix terminal
GPIO	8ch ,customized input and output, 12pin 3.81 Phoenix terminal
LAN (TCP/IP Network Port)	Ethernet 10/100/1000MB RJ45
<b>Electrical and Physical Parameters</b>	
Power Supply	AC100-240V±10%, 50/60Hz
Power Consumption	36W
Operating Temperature	0°C-45°C
Relative Humidity	30%~70%R.H.
Dimensions	484mm*280mm*44mm
Package size	570mmx410mmx135mm
Net Weight	3.1Kg
Shipping Weight	3.6Kg

## Rear Panel

