



TENDZONE

WebGem Series

DIGITAL AUDIO PROCESSOR



WeGem Series DSP Overview

The WebGem series from Tendzone presents a comprehensive suite of versatile audio DSP tools designed specifically for AV integrators. Available in four configuration sizes (8x8 to 16x16), the series includes a 16x16 model that supports Dante™ signal extension, catering to a broad spectrum of audio processing needs.

Tendzone's user-friendly Web-UI interface, the DSPs support standard bidirectional control via RS-232, TCP/IP, and GPI, making them compatible with popular third-party control systems. For local room control, users can create a custom web control interface that operates across various platforms, including Windows, iOS, macOS, and Android.

Tendzone WebGem series delivers powerful audio processing capabilities combined with flexible control options, making it an ideal choice for AV integration projects, widely used in conference room, education, hotel, courtroom etc

Features

Comprehensive DSP : Each model includes Automatic Gain Control (AGC), a compressor/limiter, an expander, matrix mixing, and a standard 5-band parametric EQ. The adaptable speaker processor offers 10, 15, or 31-band equalization, delay, crossover, and filtering.

Enhanced Audio Clarity: Adaptive Echo Cancellation (AEC) and Adaptive Feedback Cancellation (AFC) technologies, ensuring superior audio clarity for any application.

Outstanding Sound Quality: Provides 24-bit/48kHz audio quality, with 16 in/16 out Dante network audio that is AES67 compatible.

Intelligent Ducker: DUCKER function reduces background music volume during speech.

Auto Mix: Gain-sharing type (AM) and threshold type (GAM) auto mixing to manage multiple microphone outputs.

Limiter: Protects the back stage equipment from damage, ensuring the longevity of your audio system.

Customization Options: We offer customizable user control interfaces, allowing clients to design their own user interfaces through web pages for straightforward operation.

Muti control function :With RS-232, TCP/IP and GPIO interfaces for complete control function.

User-Friendly Web-UI: Easy configuration through a straightforward graphical interface, compatible with multiple platforms including Windows, iOS, macOS, and Android.

USB interface: USB2.0 audio interface supports USB disk recording and playback, USB-B computer sound card interface supports 2x2 channels.

Application

- Meeting Rooms
- Conference Center
- House of Worship

- Courtrooms
- Classrooms

- Training Rooms
- Hotels

- Lecture Halls
- 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 0808	WebGem 1616	WebGem 0808D	WebGem 1616D
Connector	3.81 mm terminal blocks			
Number of Analog Channels	8in8out	16in16out	8in8out	16in16out
Number of Dante Channels	/		16in16out	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			
Front Panel				
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			
Rear Panel				
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			
Electrical and Physical Parameters				
Power Supply	AC100-240V±10%, 50/60Hz			
Power Consumption	24W		36W	
Operating Temperature	0°C-45°C			
Relative Humidity	30%~70%R.H.			
Dimensions	484mm*280mm*44mm			
Package size	570mmx410mmx135mm			
Net Weight	3.0Kg	3.1Kg	3.1Kg	3.2Kg
Shipping Weight	3.5Kg	3.6Kg	3.6Kg	3.7Kg

Rear Panel

WebGem 0808	
WebGem 1616	
WebGem 0808D	
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