

All-in-one Solution for Education TD-0402AMP



Overview:

- The OPAQUA TD-0402AMP is a versatile digital signal processor based on A-DSP Architecture with 40-bits floating point, capacity up to 400MIPS, 1600MFLOPS, a specially designed all-in-one solution for classroom with great cost performance.
- The TD-0402AMP boasts cutting-edge DSP algorithms for superior Feedback and Noise suppression. With four analog inputs, it accommodates multiple ceiling microphones or wireless mics. Its versatile design effortlessly delivers 48V phantom power and adjustable sensitivity, ensuring stability across various audio sources. The built-in amplifier provides an impressive 150W power consumption per channel. Additionally, it supports USB 2x2 channel, facilitating seamless connections with PCs for interactive classrooms or live teaching with cameras. The integrated Echo Cancellation (AEC) feature guarantees a smooth process, while the USB channel supports recording capabilities as well.
- The TD-0402AMP is controllable via RS232, RS485, or UDP commands, offering redundancy through primary and secondary Ethernet ports.

Features:

- 4 Analog Inputs (48V Phantom Power)
- 2 Analog Outputs
- 2 Speaker Output with 150W
- In-built USB 2x2 Audio Channel
- Algorithms: AEC, AFS, ANS, AGC
- RS232/ RS485 serial port
- System configuration and control via Ethernet
- 16 Presets for recall
- Internal universal power supply
- Rack Mountable

Technical Specifications:

Analog Inputs	4
Analog Outputs	4
Speaker Output	2
Latency	< 3 ms
USB Audio Channel	Yes
Input Gain Range (6dB Steps)	0~48dB
Maximum Level	+18 dBu
Maximum Output Level	+18 dBu
Frequency Response	±0.5 dBu (20 ~ 20K Hz)
THD+N	<-100dB @4dBu
Input dynamic range	110dB
Output dynamic range	112dB
Sampling Rate	48KHz
Audio Format	24-bit
Phantom Power	48V (10mA)
Input Impedance (Balanced)	5.4K Ω
Output Impedance (Balanced)	600 Ω
Input Sensitivity	2V
Output Power	Stereo 2x150W/8 Ω , Bridge 300W/8 Ω
SNR	>80dB (20Hz~20KHz, A weighted)
Crosstalk Isolation	80dB@1KHz
Amplifier THD+N	<0.08% from 0.1W to 1/2 Power
Amplifier Input Impedance (Balanced)	4.5K Ω
Amplifier conversion efficiency	50V/ μ s @8 Ω , input filter bypassed
Damping Coefficient	>500 @ 1KHz
Working Power	90V ~ 264V, 50~60Hz
Temperature	0 ~ 40 $^{\circ}$ C
Humidity	10% to 90% RH (non-condensing)
Weight	6Kgs
Size	482x260x45mm