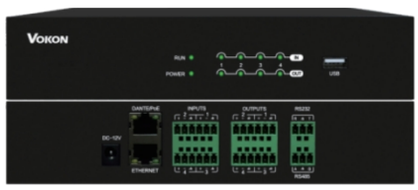
Digital Audio Processor [4R+4C]

VM-X0404



Functional description:

1. Supports 4 balanced microphone/line input channels with terminal block connectors, balanced wiring.
2. Supports 4-channel balanced line outputs with terminal block connectors, balanced wiring.
3. Processor: ADI SHARC 21489 @ 450 MHz SIMD;
4. DSP processing capability: 400 MIPS, 1.6 GFLOPS;
5. Sampling rate: 48 kHz, ±100 ppm;
6. 24-bit/48kHz AD/DA conversion rate;
7. Input channels support 48V phantom power, feature at least 16 sensitivity switch buttons, and support phase reversal and mute functions.
8. Input channel gain range: -72 to 12 dB, with customizable minimum and maximum values within this range;
9. Built-in signal generator in the input channel supports transmission of three test signals: sine wave, white noise, and pink noise.
10. The input channel features eight independent feedback suppression points utilizing a notch filter algorithm, with a notch transmission gain of 24dB.
11. Both input and output channels support 8-band PEQ British-style parametric equalization, with each PEQ band offering 5 filter options;
12. Input channels feature: preamplifier signal amplification, parametric equalization, expander, compressor, AGC automatic gain control, AM automatic mixing (gain-sharing type), AFC adaptive feedback cancellation, AEC echo cancellation, ANC noise suppression, and audio matrix.
13. Output channels feature: parametric equalizer, crossover (high-pass/low-pass filter), delay unit (1200ms), limiter;
14. Input/output channels support LINK and grouping functions, enabling channel copy, paste, and linked control capabilities.
15. Features two independent AEC echo cancellation channels, allowing selection of appropriate nonlinear filtering levels based on the reverberation characteristics of different meeting room spaces;
16. Features one USB port with a built-in USB player supporting one input and one output, enabling music playback, recording, and software-based video conferencing (e.g., ZOOM, Tencent Meeting, DingTalk Meeting, etc.).
17. Features a 4x4 input/output audio matrix switching function, enabling processed audio signals to be output via the matrix (USB, auto-mixing, echo cancellation, noise suppression), achieving a 9x5 routing matrix.
18. Features 16 scene presets;
19. Features a single bidirectional RS232 interface with central control functionality, enabling comprehensive management of power supply, signal switching, environmental control, audio, and other system components. This allows for one-touch activation of required system functions and can also be integrated into a central control system for unified management.
20. Features one RS485 interface for integration with a central control system for unified management;
21. Features one Ethernet multi-purpose data transmission and control port, supporting browser-based device access and download of built-in software for management and control. Capable of real-time management of single or multiple devices.
22. Features one POE power interface, enabling direct power supply via a POE switch;
23. Supports automatic memory protection upon power loss;
24. Supports simultaneous online operation of up to 8 devices;
25. Supports operation control via mobile/tablet apps for iOS, iPad, and Android devices; enables customization of the end-user interface; supports management of up to 30 devices from a single interface.

Technical specifications:

Frequency Response	20～20KHz (±0.15dB), THD+N: -94dB @17dBu
THD+N	0.002% @1KHz, +4dBu
Input Sensitivity Steps	0/3/6/9/12/15/18/21/24/27/30/33/36/39/42/45/48 dB
Phantom Power	+48V/10mA max
Max Level	+18dBu
Channel Separation @1KHz	108dB
Input Impedance (Balanced)	5.4KΩ
Output Impedance (Balanced)	600Ω
System Latency	<3ms
Power Supply	AC220V,50Hz/60Hz
Dimensions (W×D×H)	215*162*44mm
Weight	2KG
Power Consumption	20W