

SOUND MASKING GENERATOR/EQUALIZER WITH 2-CHANNEL DSP AND PAGE INPUT

MG2500



MG2500 Front Panel

FEATURES

- Pink-noise & audio input with 2-channel DSP processor-Audio input designed for paging applications
- Generator spectral purity (± 0.1 dB @ 0Hz-20kHz)
- Precision pink-noise filtering (-3dB per octave low-pass)
- Extended "non-apparent" repeat time of noise (200 minutes)
- Combined 1/3-octave & parametric equalization per channel
- Selectable high & low frequency shelving filters per channel
- HPF & LPF with variable frequency & slope per channel
- Leveling, compression, limiting, & soft-gating per channel for use with paging input
- Output delay, with distance/delay calculation, per channel
- Two independent matrixes for channel-to-channel mixing
- Variable noise, input, & output levels with software metering
- Sixteen non-volatile memory presets store/recall settings
- Balanced input & outputs on plug-in barrier strip connectors
- Programming software & serial cable included
- No manual controls on front panel, to prevent tampering
- Remote control via RS-232 & programmable logic inputs*
- Incorporates AES recommended grounding practices
- Marked and ULC/UL listed power source
- Five-year warranty

SPECIFICATIONS

Frequency Response: 20Hz-20kHz @ +4dBu: +0/-0.5dB

Sampling Rate: 48kHz

THD+Noise: 20Hz-20kHz @ +4dBu: < 0.002%

A/D & D/A Converters: 128x oversampled 24-bit sigma delta

Dynamic Range: 20Hz-20kHz: > 100dB

Maximum Gain: 20dB

Input Impedance (balanced): 20k ohms

Maximum Input (balanced): +24dBu

Output Impedance (balanced): 200 ohms

Maximum Output (balanced): +24dBu

Noise Source: Digital random noise with 200 minute repeat time

Digital Filters: 28 (Up to 28 bands of equalization, plus high-pass & low-pass filters available per channel. Parametric & Graphic equalization techniques may be used simultaneously on the same channel, as long as the total number of bands per channel does not exceed 28.)

Memory: Non-volatile (no battery required)

Presets: 16

Logic inputs: 16 - Logic Inputs are controlled by switches, contact-closures, etc. Each

Logic Input may be assigned two functions (one for switch "closed" and one for switch "open").

Pinking Filter: Flat between 20Hz and 20kHz

Computer interface: RS-232

Chaining interface: RS-232 repeater via RJ-11 cable

Power Consumption: < 15 watts

Dimensions: H 1.75" (44mm) (1 rack space)

W 19" (483mm)

D 7" (178mm)

Weight: 4.5 lbs. (2.04kg)

APPLICATION

The MG2500 represents the latest technology in digital signal processing (DSP) engines for sound masking generator/equalizers. This model features a built-in digital noise generator and one analog input specifically suited for use as a paging input. (2) independent mix matrixes are provided to allow operation in the following configurations:

1. Single channel masking
2. Dual channel masking
3. Single channel paging
4. Dual channel paging (from single page input source)
5. Single channel mixed paging & masking
6. Dual channel mixed paging & masking

The MG2500 offers a variety of user selectable filter options including one-third octave, parametric high/low pass, and high/low shelving filters. All set-up and operating functions of the MG2500 are conducted from a PC using software provided for Windows XP/95/98/NT4. After defining and downloading the control functions through the PC, the settings will be stored within the unit in non-volatile memory (no battery required). The MG2500 model features 16 storage memories and 16 preset functions.

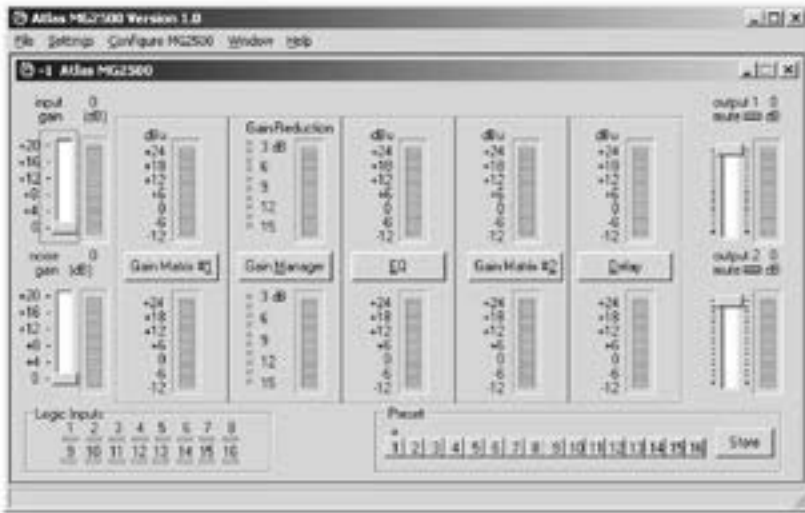
* For computers with USB ports only, use a Keyspan high speed USB serial adapter, part number USA-19HS, for communication with the MG2500. Supplied 9 pin cable must be used with the adapter.

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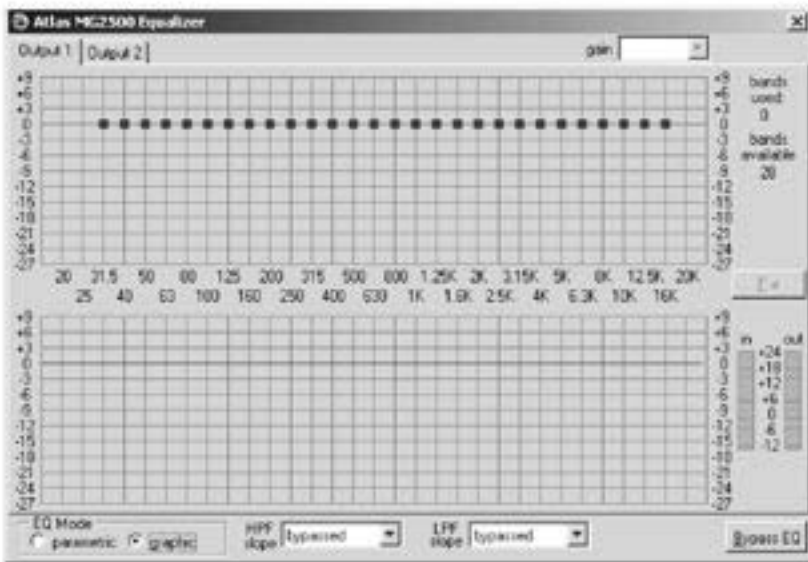
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ARCHITECT AND ENGINEER SPECIFICATIONS

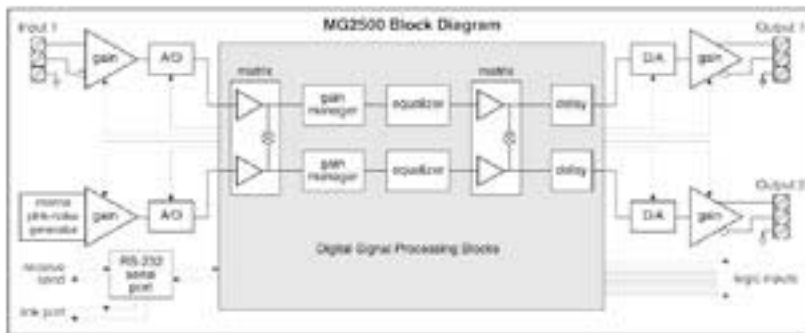
The noise masking processor shall be the AVLELEC MG2500. The noise masking processor shall provide a digital pink-noise generator, and a balanced line-level audio input, and a dual-channel DSP processor, all in a single rack-space unit. The pink-noise generator shall have a spectral purity of ± 0.1 dB from 0 Hz to 20 kHz with precision low-pass filtering of -3 dB per octave, and an extended "non-apparent" repeat time of 200 minutes. The DSP processor shall provide two independent channels of gain management, equalization, delay, & channel-to-channel matrixing. Gain management shall include leveling, compression, limiting, and soft-gating. Equalization shall be combined $\frac{1}{2}$ octave & parametric, plus high/low shelving filters, and HPF/LPF with variable frequency & slope. Delay time shall be adjustable for each output, with automatic distance/delay calculation. Balanced line-level input & outputs shall be provided on plug-in barrier strip connectors. Noise, input & output levels shall be variable, with complete software level metering capability. Sixteen non-volatile memory presets shall be available to store/recall processor settings. Sixteen logic via inputs shall be provided, for remote control via external contact-closures. Serial & link ports shall allow RS-232 control, with Windows[®] 95/98/NT/2000 programming software & serial cable provided. No manual controls shall be provided. All processor controls & indicators shall be provided via software graphic interface. Remote control shall be via RS-232, programmable logic inputs, or via accessory units allowing potentiometer or push-button control. Frequency Response shall be ± 0.5 dB (20 Hz-20 kHz @ +4 dBu). THD+N shall be less than 0.002% (20 Hz-20 kHz @ +4 dBu). Dynamic Range shall be greater than 100 dB (20 Hz-20 kHz @ unity gain). Power Consumption shall be less than 15 watts. Dimensions shall be 1.75" high, 19" wide, & 7" deep. Weight shall be 4.5 lbs. Warranty coverage shall be 5-years. The noise masking processor shall be CE marked, include a ULC/UL Listed power source, and incorporate AES recommended grounding practices.



MG2500 Main Screen



Graphic EQ Screen



Block Diagram

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