ASP-MG24TDB

Digital Signal Processor with
Independent Masking Generators & Advanced Scheduling Interface

ASP-MG24TDB

Specifications

Computer Interface:	USB, RS-232, and Ethernet
Power Consumption:	<21 Watts
Input Impedance (balanced):	Line 10kΩ, Mic 10kΩ
Maximum Input (balanced):	+20 dBu
Output Impedance (balanced):	50Ω
Maximum Output (balanced):	+20 dBu
Frequency Response:	20 Hz - 20 kHz (± 0.1 dB)
Dynamic Range:	115 dB (unweighted)
Common Mode Rejection:	>60 dB (50 Hz - 10 kHz)
Crosstalk:	<-100 dB
Distortion:	0.02% (1 kHz @ +4 dB)
Processor:	32-bit (40-bit extended)
Sampling Rate:	96 kHz
Analog Converters:	High Performance 24-bit
Propagation Delay:	3 ms
Level Meters:	In / Out 5 segment LED
Gain:	-40 dB to +15 dB in 0.25 dB steps
Parametric Filters:	8 per I/O
Filter Bandwidth:	0.02 to 2.50 octaves (Q=0.5 to 72)
Masking Generators:	White / Pink Selectable Nonapparent 200 Minute Repeat Time
Delay:	200 ms per I/O
Power:	115V 20 Watts UL Rated External AC Power Supply
Height:	1 RU, 1.75" (44 mm)
Width:	19" (483 mm)
Depth:	8" (203 mm)

Features

- Two Mic / Line Balanced Inputs
- Four Balanced Outputs
- Four Independent Masking Generators
- Pink or White Noise Generators
- Matrix Mixer
- Level Control, Compression/ Limiting Per I/O
- Shelving, High Pass / Low Pass Filtering Per I/O
- Eight Parametric Filters Per I/O
- 16 Non-Volatile Memory Presets
- Front Panel Indicator LEDs
- Software Bar Graph, DBU, & Volt Meters
- USB and RS-232 Interface
- MEQ Software Interface
- Preset Masking Programs
- 24/7 Scheduler Programming
- Day Light Savings Selection
- System Commission Ramping
- Power Failure Ramp Function
- One Year Warranty
- No Manual Controls on Front Panel to Prevent Tampering
- Remote Control via USB, RS-232, or Ethernet

Application

The Atlas Sound ASP-MG24TDB represents the latest technology in digital signal processing (DSP) engines for a sound masking generator, masking control interface and audio system signal processor. This model features 4 built-in digital noise generators (white or pink, user selectable) and two analog inputs ideally suited for use as paging inputs in combination voice paging-BGM-sound masking systems. The 1 RU package can also be used as a dynamic signal processor for fine tuning the performance parameters of loudspeaker systems thru crossover, delay, comp / limiting and parametric equalization control. Multiple filter types and an internal mix matrix function provides a flexible single space problem solver for signal processing and sound masking functions.

The ASP-MG24TDB offers a variety of user selectable filter options including ⅓ octave, parametric high pass / low pass, and high pass / low pass shelving filters. All setup and operating functions of the ASP-MG24TDB are conducted from a PC using software provided for Windows™. After defining and downloading the control functions through the PC, the settings will be stored within the unit's 16 non-volatile memory (no battery required) locations. The ASP-MG24TDB model features an integrated scheduling function that is useful for adaptive masking applications. Sound Masking control functions in the ASP-MG24TDB can be adjusted based on time of day and day of week. The ASP-MG24TDB can be controlled or monitored via the rear panel Ethernet port on a local area network or the front panel via USB and RS-232 interface.

The ASP-MG24TDB also features an auto EQ room correction function that is based on the Atlas Sound MEQ software. The MEQ is a secondary Windows™ based program and is a time savings solution for auto tuning small or large masking systems. The MEQ software imports standard RTA data, compares it to a preferred masking system spectrum and creates an auto correction EQ file that can be imported into the ASP-MG24TDB.

Atlas Sound

Architect & Engineer Specifications

The Atlas Sound ASP-MG24TDB shall be a 1RU DSP 40 bit, 96 kHz, 2 x 4 signal processor with internal sound masking generators, remote control capability, initialization ramp up function, power restore ramp up function, and software enabled scheduling.

The included software shall provide for the unit to change masking levels based on time of day, day of week or user selectable schedule based on preset configurations. The unit shall be equipped with an Ethernet connection (RJ45) to provide control and monitoring of a single or multiple processors (maximum 16 units) via a standard network switch on a local area network (LAN). USB and RS-232 interfaces shall also be provided. The unit shall be p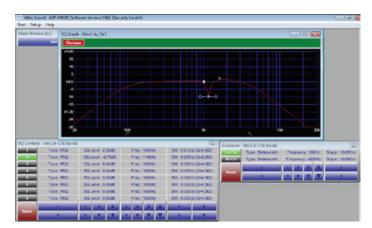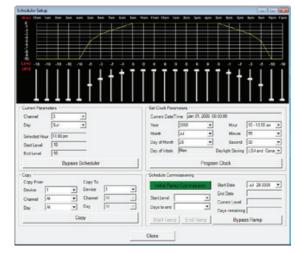rovisioned to allow external control to be accomplished via control system interface (not included). The unit shall provide two balanced audio Mic / Line level inputs along with four independent internal digital white / pink noise generator inputs. The Mic / Line inputs shall provide 30 dB of gain. Each of the Mic / Line inputs shall have independent gain control, parametric filter, compressor limiter, and mute function. All inputs and outputs shall be provided on plug-in Euro style dockable connectors. The four independent assignable white / pink noise generators shall have a spectrum of 20 Hz – 20 kHz, precision low-pass filtering of ±3 dB per octave and an extended "non-apparent" repeat time of 200 minutes.

Frequency Response shall be +0 / -0.5 dB (20 Hz – 20 kHz @ +4 dBu). THD+N shall be less than 0.002% (20 Hz – 20 kHz)

Main Screen

Equalizer Screen

Output Matrix Mixer Screen

Scheduler Screen

ASP-MG24TDB
(Rear)

Atlas Sound