

DS3000

# DSP Soundmasking Generator (Digital Signal Processor)



tech spec \_ sheet

The industry's largest supplier of design-build soundmasking solutions

## FEATURES

- Pink-noise & audio input with 2-channel DSP processor
- Soundmasking generator spectral purity ( $\pm 0.1\text{dB}$  @  $0\text{Hz}\sim 20\text{kHz}$ )
- Precision pink-noise filtering ( $-3\text{dB per octave low-pass}$ )
- Extended 'non-apparent' repeat time of noise ( $200\text{ minutes}$ )
- 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
- 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
- Dynasound programming software & serial cable included
- No manual controls on front panel, to prevent tampering
- Remote control via RS-232 & programmable logic inputs
- Accessory units allow control via pots (**RCU**) or buttons (**RT**)
- Incorporates **AES** recommended grounding practices
- **CE** marked and **UL / C-UL** listed power source meets all codes and standards

## GENERAL APPLICATIONS

The DS3000 DSP Soundmasking Generator provides a digital pink-noise generator, a balanced line-level audio input, and a two-channel DSP processor, all in a single rack-space unit. The unit is designed so that soundmasking & audio levels, plus two channels of equalization, gain management, & delay, are fully adjustable via computer software. This prevents unauthorized tampering of the soundmasking signal. Sixteen presets can be recalled via contact-closures, RS-232, or other remote control options. The DS3000 allows for fine tuning of the soundmasking signal to compensate for any environment's unique acoustical signature.

▶ soundmasking.com

6439 Atlantic Blvd\_Norcross, GA 30071\_(770) 242-8176\_(800) 989-6275

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## GENERAL DESCRIPTION OF OPERATION

The DS3000 DSP Soundmasking Generator will create and tailor the soundmasking signal to be amplified and distributed throughout an environment. Because the unit incorporates a digital soundmasking signal generator, mixer, equalizer, and additional processing capabilities, performs the task of several components. In a streamline system, it can be connected directly to the soundmasking amplifier. The DS3000 is controlled by any Windows compatible PC, through Dynasound's DS3000 programming software – *not a cluttered front control panel*. This gives the unit a clean look and makes it tamper-proof. The DS3000 bolts into any standard 19" equipment rack.

## SPECIFICATIONS

### Frequency Response

20Hz~20kHz @ +4dBu, +/-0.5dB

### THD+Noise

< 0.002%, (20Hz~20kHz @ +4dBu)

### Dynamic Range

> 100dB @ full bandwidth

### Maximum Gain

20dB

### Input Impedance

20k Ohms (balanced)

### Maximum Input

+24dBu

### Output Impedance

200 Ohms (balanced)

### Maximum Output

+24dBu

### Sampling Rate:

48kHz

### A/D & D/A Converters:

128x oversampled 24-bit sigma delta

### Power Consumption:

< 15 watts

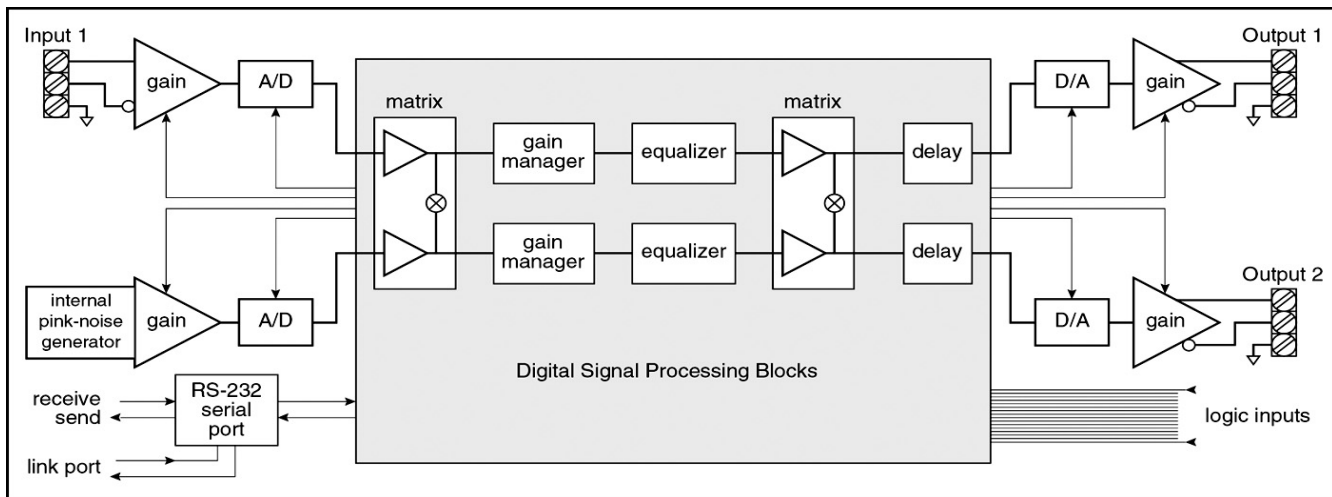
### Dimensions

1.75 inches (44mm)

19 inches (483mm)

7 inches (178mm)

## SIGNAL BLOCK DIAGRAM



## ORDERING INFORMATION

DS3000 DSP Soundmasking Generator

Shipping Weight: 6 lbs.