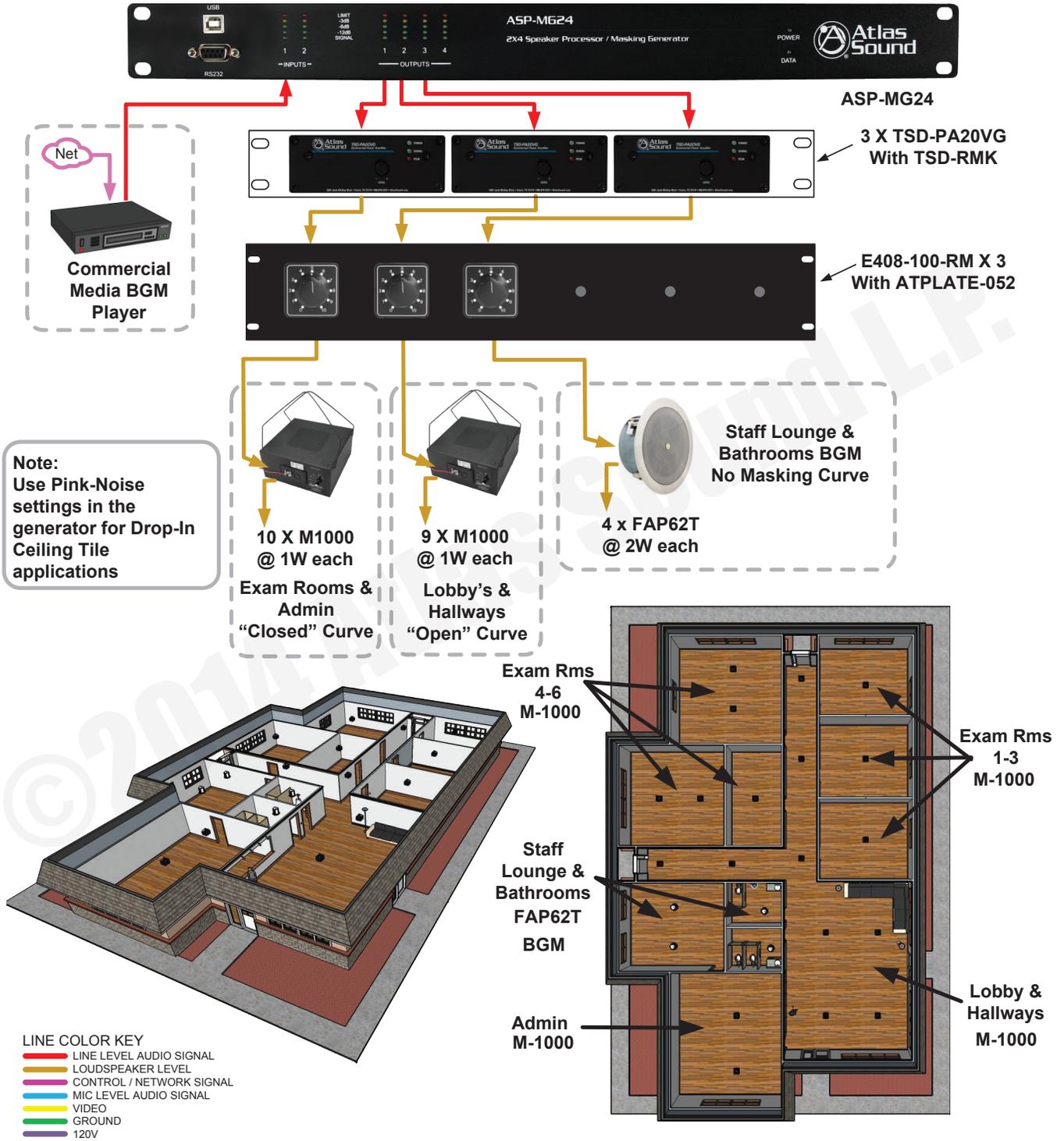




3 Channel Sound Masking System with BGM Featuring ASP-MG24 Processor



This is a design concept and is not meant to be a fully engineered system design. Contact Atlas Sound for system design help.



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## Overview:

A sound masking system is a distributed audio sound system that emits a low-level non-distracting masking noise (similar to pink noise) typically tailored to reduce far-field speech intelligibility and thereby improving speech privacy. In a Medical Clinic, Doctor-Patient confidentiality is required and many small clinics are not constructed to provide adequate sound isolation. Sound Masking is a very cost effective way to provide the required privacy. Every space has its own acoustic signature thereby requiring a specific sound masking noise curve to be tuned for the specific curve in a given space. This example illustrates two different masking curve areas, open areas "Lobby and Hallways" and closed "Exam Rooms". See Atlas Sound "MaskingSpectra.doc" at [atlassound.com](http://atlassound.com) for specific guidance on open and closed office masking curve settings. In addition, a BGM (no masking) zone is provided in the staff lounge and bathrooms using the third channel of the ASP-MG24.

## Application Example Description:

In this example, the ASP-MG24 (4-channel masking processor) is deployed to provide the two different specific filter curves necessary for the open lobby and hallways and closed exam rooms. The exam rooms use a TSD-PA20VG amplifier powering ten (10), M1000 speakers set at 1-Watt each with a master level set by an E408-100 (stepped) volume control. The open lobby and hallways have a TSD-PA20VG amplifier powering nine (9) M1000 speakers set at 1-watt each with a master level set by an E408-100 (stepped) volume control. The M1000 speakers are suspended in the plenum space. FAP-62T flush mount ceiling speakers are used for the BGM zones set at 2-watts each and powered by a TSD-PA20VG 70V amplifier, also using a master volume control. The three TSD amplifiers are mounted side-by-side using the TSD-RMK accessory rack mount. A commercial music subscription player provides the music source.

## Benefits:

- Cost Effective Speech Privacy
- Improved Work Environment
- Helps Achieve Doctor-Patient Privacy

## Application Example Notes:

1. Install design physical assumptions:
  - The suspended ceiling is mineral tile.
  - The plenum depth is between 1 and 3 feet.
  - There are no absorption materials in the ceiling plenum.
  - The suspended ceiling height is lower than 12 feet.
2. See Atlas Sound "MaskingSpectra.doc" for guidance on open and closed office masking curves.
  - Set system EQ - Bandpass filters for (Low-Cut) HP = 100Hz; (High-Cut) LP = 8kHz
  - Walk the space with an RTA and adjust dB levels of each frequency to match curve settings on chart (in MaskingSpectra.doc) in space.
  - Typical levels are from 42dB to 46dB.
  - Some offices may need to ease into the level setting over a few days to allow employee's to adjust without noticing the change. Do this by adjusting the level pot one step at a time until the desired 42dB or more needed is reached.
  - For an Auto Scheduler Level Control see: Atlas ASP-MG24TDB



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