MT107A Hands Free Echo Canceling System for Auto PC

The MT107A is a DSP based echo canceling and noise reduction processing box. It enables hands free and headset free audio communication in your vehicle.

Features

- Up to two microphone inputs through a standard 3.5mm stereo audio jack
- Controllable input level and phantom power supply via free downloadable utility
- Analog output through a standard 3.5mm jack
- Digital output through USB connection
- Powered through USB cable.
- Far-end signal through a 3.5mm stereo analog connection.
- Far-end output maintaining similar audio quality and bandwidth as the Far-end input
- Phoenix's proprietary superb echo cancelling algorithm, noise suppression, and signal conditioning

Specifications

- 100% Full Duplex Echo Cancelling – no attenuation during full-duplex
- Acoustic Echo Canceling > 40dB
- Noise Reduction > 10dB
- Residual noise suppressed to the environment noise level
- Low delay (10msec)
- Convergence (also during full duplex) 40dB/sec
- Microphone inputs (IN1): Connected to the tip and ring of a stereo 3.5mm audio jack (unit will function properly even if only one of the inputs is connected). The following microphone settings are available using the setup software:
  - Mic level (280mV peak-to-peak)
  - Line level (4V peak-to-peak)
  - add 6dB boost
  - Optional 3V power supply (phantom)

  *Units are preset to Mic level, no 6dB boost and Phantom On
- Far end (speakers' signal) input (IN2): stereo signal connected to the tip and ring of a 3.5mm audio jack. Line level 2V Peak-to-Peak maximum
- Far end (speakers' signal) output (OUT2): stereo out – identical to the Far end in.
- System Out (OUT1): mono signal connected to the tip of a stereo 3.5mm audio jack (ring is not connected). Level can be configured through the setup software to:
  - Line level: 2V peak-to-peak
  - Mic level: 200mV peak-to-peak
  - Units are preset to Line level

How To Connect:

IN1 (microphone input): Connect the supplied stereo microphone or your own microphone into this jack (input level defaulted as Mic level with 3V phantom supply).

OUT1 (audio output): Using a 3.5mm to 3.5mm cable (not supplied), connect OUT1 (tip) to your system's audio input. You can use the USB connection instead if a digital connection is utilized.

IN2 ("Far-end" or speaker input): Connect to your system's output (speaker output) signal. This signal is necessary for the echo canceller to function (input set as line level).

Phoenix Audio Technologies, 2934 N. Naomi Street, Burbank, CA 91504; Tel (818) 937-4774
www.phnxaudio.com

OUT2 (speaker output): Connect to your speakers. OUT2 is a stereo speaker output setup as Line level. The signal through this connector is similar in quality to the Far-end input (preventing degradation in quality of your Hi-Fi sound).

Note: you can select to split the speaker signal, by connecting our unit with one end of the split and your speakers directly with the other (see the dashed line in the diagram below).

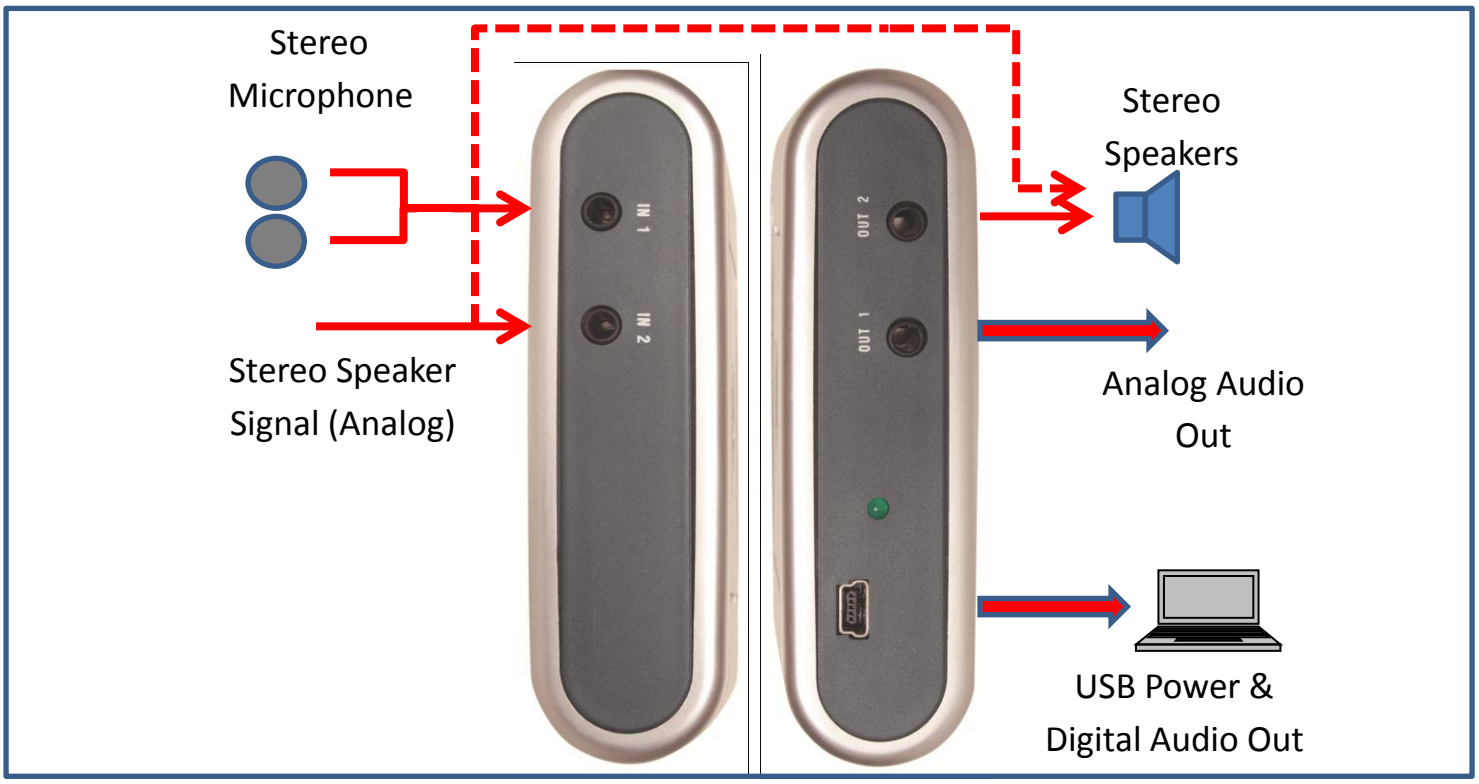
Modifying System Parameters Through the SDK

As mentioned in the Specification section, some of the MT107A parameters can be controlled, modified, and stored on the unit using a software setup utility which we refer to as the SDK.

The SDK is a graphic software utility, available for Windows operating systems that can be downloaded for free from our website. The SDK communicates with the MT107A through a standard USB link.

Once the settings have been modified using the SDK, the user can save the new settings onto the device (by clicking Save). The parameters that can be modified with the SDK include:

- input level (mic / line / 6dB boost)
- phantom power supply (yes / no)
- color filter (10 different pre-set filters)
- output level (mic / line).

These parameters can be controlled by "double clicking" the specific icon (for example the input amplifier) or through the software's menu.

For additional information please refer to our website at www.phnxaudio.com.