

MT107E-HD Dual Microphone 16KHz Echo Canceling System



The MT107E-HD is a DSP based, dual microphone, stereo echo cancelling system designed for easy integration and immediate enrichment of audio communication

Features

- The MT107E-HD is a dual microphone, single output, stereo, 16KHz Noise Canceling / Echo Canceling solution
- The MT107E-HD utilizes your own microphone and loudspeaker. It provides both analog and digital outputs. The system is delivered with a single iBall microphone

- Both the microphone and the Far-End input are connected through standard 3.5mm stereo audio jacks
- Controllable input level and phantom power supply via free downloadable utility
- Analog output through standard 3.5mm jack, digital output through USB connection
- USB powered (AC/DC converter with USB connector output available separately)
- Phoenix's proprietary echo canceling, noise canceling, and AGC algorithms with no gating, to prevent the loss of critical information

Specifications

- 32KHz sampling frequency; 100Hz-16KHz bandwidth
- Two levels of Echo Canceling aggressiveness and three levels of Echo Canceling speed.
- Controllable tail length – up to 240 ms.
- Three levels of noise reduction: 8dB (Low), 14dB (Medium), and 20 dB (High), selectable through the free control software
- Residual noise suppressed to the environment noise level to prevent pumping noise
- Eight preset color filters for both the output and the speaker signal
- Low delay (10msec)
- Microphone input connected to the tip and ring of IN1. The following microphone settings are available using the setup software:
 - Mic level (280mV peak-to-peak)
 - Line level (2/4V peak-to-peak)
 - add 6dB boost
 - Optional 2.8V power supply (phantom)

*Units are preset to Mic level without 6dB boost and Phantom On

Note: user can use a single microphone connected to either the tip or ring of IN1

- Far-End Input connected to tip and ring of IN2. The input setting is Line level (2V peak to peak)

Notes:

1) Far-End Input will be received through the USB channel if it's active

2) Only one far-end signal is required; the two inputs will support stereo loudspeaker systems

- Output connected to the tip of OUT1. The following output settings are available using the setup software:

- Line level: 2V peak-to-peak
- Mic level: 200mV peak-to-peak

*Units are preset to Line level

Note: Output will be transmitted through the USB channel if it's active

- Speaker connected to the tip and ring of OUT2. The output setting is :
 - Line level only: 2V peak-to-peak

How To Connect:

IN1 - Microphone: Connect your microphone input into this jack (input level defaulted as mic level).

IN2 – Far-End Input: Connect your loudspeaker output into this jack (input level is Line level). **NOT REQUIRED FOR USB COMMUNICATION.**

OUT1 – Far-End Output: Connect OUT1 to your systems audio Output. This is the local microphone input audio. For local relay of microphone input audio.

OUT2 – Speaker: Connect OUT2 to your loudspeaker amplifier. **REQUIRED FOR USB COMMUNICATION**



Modifying System Parameters Through the SDK

As mentioned in the Specification section, some of the MT107E-HD 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 MT107E-HD 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)
- 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.