

## Four Microphone Beamforming & Echo Canceling System for Kiosks - MT107KSK



The MT107KSK is a DSP based, four microphone, beamforming, and echo canceling system specifically designed for the various environments that Kiosks are exposed to. Providing increased pick up quality via directed beamforming to a singular point (person talking) in a crowded environment.

### **Features**

- The MT107KSK is a four microphone, beamforming, single output, stereo, 8KHz Noise Canceling / Echo Canceling solution.
- The MT107KSK utilizes our set of two, two -split microphones and your own amplified loudspeaker.
- A total of four microphones provide high quality beamingforming directed pick up in kiosk Environments.
- The microphones are connected to the two inputs via 3.5mm jacks.
- The far end input is via USB connection only.

- Controllable input level and phantom power supply via free downloadable utility
- Phoenix's proprietary echo canceling, beamforming, noise canceling, and AGC algorithms with no gating, to prevent the loss of critical information

## Specifications

- 16KHz sampling frequency; 100Hz-8KHz bandwidth
- Two levels of Echo Canceling aggressiveness and three levels of Echo Canceling speed.
- Controllable tail length – up to 200 ms.
- 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 inputs connected to the tip and ring of IN1 and IN2. \*Units are preset to Mic level with 6dB boost and Phantom On. The following microphone settings are available using the setup software:
  - Mic level (140mV peak-to-peak)
  - Line level (2V peak-to-peak)
  - add 6dB boost (In1&2 Only)
  - Optional 2.8V power supply (phantom)

\*Units are preset to Mic level with 6dB boost and Phantom On

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**Note: User should use the provided dual split microphones connected to the tip & ring of both IN1 & IN2. (Identical single microphones could be used in place of the dual split microphones. Option to use only one Input is viable)**

- The far end input is via USB connection only.

### Notes:

- 1) **Far-End Input will be received through the USB channel**
- Audio Input (mic jack) of system is connected to the tip of OUT2.

- 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 OUT1. The output setting is :
  - Line level only: 2V peak-to-peak

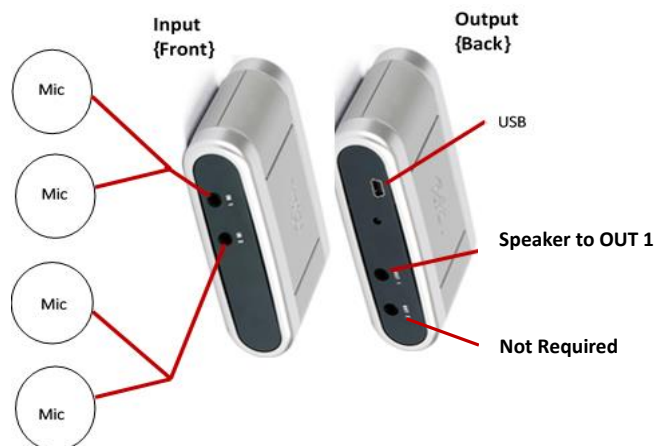
## How To Connect:

IN1 - Microphone Input: connect your microphone input into this jack

IN2 – Microphone Input: connect your microphone input into this jack

OUT2–Audio Out: Connect OUT2 to your system's audio input. **NOT REQUIRED FOR USB COMMUNICATION**

OUT1 – Speaker: Connect OUT1 to your loudspeaker amplifier.

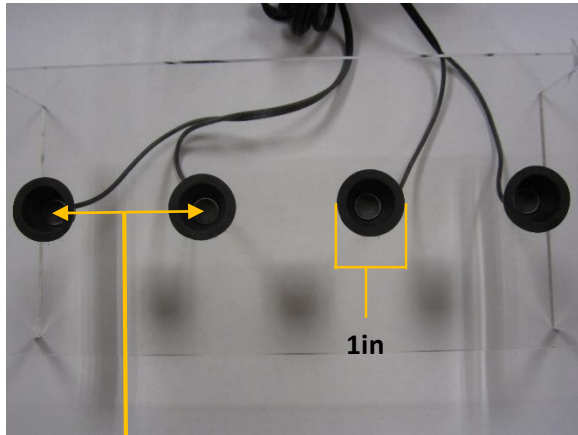


## Dimensions

Height/Width/Depth MT107: 3.75in/2in/1in  
Weight: .5lb

### **Microphone Specifications & Set up**

It is recommended that the four microphones delivered by Phoenix Audio are used in the setup for maximum quality. The following is a guideline for placement and set up of the microphones to ensure the highest quality audio possible.



**Ideally 2in. (can be between 1-3in)**

**Note: Horizontal Layout. Plastic Console not included**

facing the front of the kiosk, directly in front of where microphone input is received)

- A cloth, foam cover, or grill should be placed in front of the microphones to reduce wind distractions and increase pick up clarity

**For additional information please refer to our website at [www.phnxaudio.com](http://www.phnxaudio.com).**

- If indeed you chose to use your own microphones, ensure that they have boots, and are identical in all aspects
- Place the microphones in the horizontal axis. (Do not place them vertically)
- The spacing between the microphones should be 2in for optimal performance. However, it could be placed 1-3in. apart. (Do not place closer than 1in. apart)
- Mount the microphone by drilling the holes onto the kiosk console or in a microphone box, and mount using the microphone boots. (\*ensure that the microphone enclosure has ample space and that the microphones are