# ETSInc.

The SMA1-MPEA is a single channel, two way audio Interface box designed to be used with ETS speaker / microphones (OR separated speakers and pre-amplified microphones) and Power Over Ethernet IP cameras. It contains a 10 Watt speaker power amplifier to drive an 8 Ohm speaker and an ETS microphone interface. The SMA1-MPEA can be connected to a "microphone" or "line" level input and "line level" output of a POE IP camera. Note- this equipment is intended for use with camera or VMS software that has a PTT (push to talk) half duplex option for two way audio. If your software does not support this mode you may get acoustical howling feedback.

## SMA1-MPEA location and power

The SMA1-MPEA should be located within 6' of the IP camera. The SMA1-MPEA has 2 modes of operation. Mode 1 allows the SMA1-MPEA to be connected in between the network switch and the IP camera. In mode 1, a PoE plus network switch is recommended. In mode 2, the SMA1-MP can be connected to its own PoE port on the network switch for power only. A separate network cable is then run to the camera from the network switch. PoE plus is not needed for mode 2. Note- in mode 1 the PoE sense resistor should be switched "OUT" and for mode 2 it should be switched "IN".

#### Microphone / Speaker Placement.

Avoid mounting the speaker and microphone near air conditioning vents, light fixtures or electrical equipment. The speaker and microphone should be placed as close to the subject(s) as possible. 5 to 10 feet is ideal. The speaker and microphone are still useable in the range of 15-25 feet in public address applications but is dependent on the level of background noise in the area. Experimentation in the environment will determine what distances work best.

#### **Microphone and Speaker Cables**

Run a 22 gauge, stranded, two conductor shielded cable for the microphone up to 1000' long. The speaker cable should be 18guage cable up to 300' long. Keep cables away from electrical equipment and light fixtures.

## Adjusting the microphone "gain" and SMA1-MPEA output "level" controls

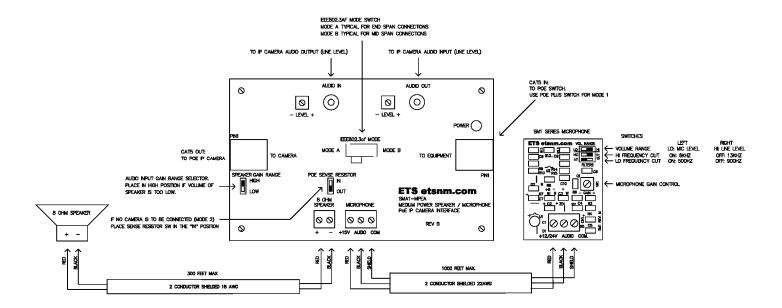
If the SMA1-MPEA will be plugged into a "microphone level" input of an IP camera, set the microphone gain slightly clockwise (or 1/4 of a full turn) from full counter-clockwise. Then use the "level control" on the SMA1-MPEA to set a volume that produces an acceptable audio level at the head end.

If the will SMA1-MPEA be used with a "line level" microphone input, turn the gain control of the SM1 to 3/4 full clockwise and adjust the level control on the SMA1-MPEA to produce the clearest audio level at the head end.

## Adjusting the speaker volume

Adjust the audio input level for an acceptable volume level on the connected speaker / microphone. If a decent amount of volume cannot be achieved, place speaker gain range switch in the "High" position.

**SMA1-MPEA Mode switch:** The SMA1-MPEA supports Both Modes A and B of IEEE802.3af POE. The SMA1-MPEA is pre-configured for the most common use of the "end point" POE IEEE802.3af standard (mode A). If the power LED does not illuminate in this position, try the mode B position (mid span).



# Caution

It may be against the law to install this microphone kit in certain environments. It may also be against the law to record conversations of the person(s) being monitored without their knowledge. It is the responsibility of the installation company and end-user to determine if the application of this product is legal. These laws vary from state to state. If you are not informed on these matters, consult a qualified attorney or contact the appropriate state agency. A sticker is provided with this kit for the applications where notification must be posted.

## Warranty

All ETS products carry a one year parts and labor warranty. This warranty does not cover damages as a result of misuse, improper handling of the unit or exposure to extreme temperatures or moisture. At its discretion, ETS reserves the right to repair or replace this unit under the conditions of the warranty. If you experience problems with your equipment call ETS at: 505-888-3923 to obtain a return authorization number. Equipment requiring repair beyond the warranty period or units that have been damaged or are not covered under the warranty can be repaired by ETS for a minimal cost under most conditions.

