E.A.COMBS LIMITED

TIMING SOLUTIONS

System for broadcasting announcements and lockdown alarm in schools

1. INTRODUCTION

EA Combs provides a wide range of audio devices Over IP that, combined in various ways, allow you to implement different types of systems such as:

- Intercom systems
- Emergency lockdown systems
- Public Address systems
- Paging systems

All the devices provided by EA Combs are native IPs and connect directly to the data network without the need for interfaces or other intermediate elements. Moreover, these devices use a P2P protocol that allows the various devices of each system to be directly connected without the need to install a server or any other type of management unit on the network.

Ultimately, each system consists of a set of stand-alone devices each identified on the network by the IP address assigned in the initial phase of system configuration.

Below are some notes that show how these devices can be used to build systems in schools.

2. PA & LOCKDOWN SYSTEM

EA Combs has a wide range of Over IP apparatuses for the realisation of PA systems from the simplest to the most complex. The elements that make it possible to implement these systems are:

- the POE amplified loudspeakers
- the power amplifiers Over IP
- the IP microphone consoles
- the hardware control modules (I/O modules)
- the software control modules

As far as school applications are concerned, an interesting feature of our devices is that both POE amplified loudspeakers and Over IP amplifiers for 100V loudspeaker lines can store on board sound files that can be played either on a local command or on a remote command sent via the LAN. A typical application in the school environment of this function could be to store a file that reproduces the signal of the beginning or end of the lessons. This file can be reproduced in different ways such as closing a contact on an I/O module or sending a command from a console or sending a command by a special software based on a pre-set time program.
Similarly, a message to be broadcast in the event of an emergency can be stored both on the loudspeakers amplified in POE and on the Over IP amplifiers for 100V loudspeaker lines and reproduced by means of commands.

2.1 The POE amplified loudspeakers

- SoundLAN-PoE.T10

Over IP 10W amplified horn loudspeaker with POE power supply and IP66 connector for outdoor installation. It allows you to store directly on board, 4 messages with a total duration of 2 minutes that can be played by means of remote control transmitted through the data network.

- SoundLAN-PoE.AP6/M

Over IP 6W amplified loudspeaker with PoE power supply made of a metal case for wall mounting. It allows you to store directly on board, 4 messages with a total duration of 2 minutes that can be played by means of remote control transmitted through the data network.

- SoundLAN-PoE.AP3x2

Over IP amplified loudspeaker with PoE power supply and two opposite 3W+3W loudspeakers. It is made in an ABS case for wall mounting. It allows you to store directly on board, 4 messages with a total duration of 2 minutes that can be played by means of remote control transmitted through the data network.

- SoundLAN-PoE.AP6

Over IP 6W amplified loudspeaker with PoE power supply. It is made in an ABS case for wall mounting. It allows you to store directly on board, 4 messages with a total duration of 2 minutes that can be played by means of remote control transmitted through the data network.

- SoundLAN-PoE.A10

Over IP 10W amplified loudspeaker with PoE power supply. It is made in a case for fixing to a false ceiling. It allows you to store directly on board, 4 messages with a total duration of 2 minutes that can be played by means of remote control transmitted through the data network.

2.2 The IP microphone consoles

There are two models of microphone consoles available for live announcements: single zone consoles (code: *SoundLAN-E.CM)* and 12 zone consoles (code: *SoundLAN-E.12CM*). In addition, an expansion console is available which, when used in conjunction with the SoundLAN-E.12CM console, allows to expand the number of addressable zones up to 192.
Finally, as mentioned above, we remind you that, since the protocol used for the sound diffusion systems and that used for the intercom systems is the same, it is possible to program one or more buttons on the intercoms or in order to carry out the sound diffusion on an area or in order to call another intercom with which to establish a conversation.
For this mixed function, the desktop intercom with InterLAN-EI.PPD-T code is particularly interesting, which has a function for diagnosing the lines connecting to the peripheral devices and monitoring their self-test functions.

- SoundLAN-E.CM

Console Over IP in desktop version with gooseneck microphone on the front panel, a button with PTT function and a docking button for the permanent enablement of the microphone. The power supply can be in POE or 24 Vdc DC.

- SoundLAN-E.12CM

Console Over IP in desktop version with gooseneck microphone on the front panel, a 12-button keypad for preselecting sound diffusion zones, an additional button for preselecting the general call, a button with PTT function and finally a button for the permanent enablement of the microphone. Power supply can be in POE or 24 Vdc.

2.3 The software control modules

EA Combs also provides a software tool (code: SoundLAN-SW) that allows you to manage the sound diffusion systems; the main functions performed by this software are:

- possibility of transmitting a "live" announcement to one or more audio devices (POE loudspeakers and/or audio gateway) using an audio device (microphone, telephone handset, etc.) connected to the PC
- possibility of transmitting to one or more audio devices (POE loudspeakers and/or audio gateway) a pre-stored announcement on manual control
- setting of a weekly hourly programming that allows to transmit to one or more audio devices (POE loudspeakers and/or audio gateway) a pre-stored file on board the PC so that it can be reproduced
- possibility of transmitting to one or more audio devices (POE loudspeakers and/or audio gateway) entertainment audio files (music stored on the PC or internet radio programmes) which will be automatically interrupted when transmitting live or pre-memorised announcements

This software must be installed on a PC with WINDOWS operating system and is subject to license; the PC must be connected to INTERNET to automatically synchronize the clock and to be able to download radio programs.
EA Combs is willing to evaluate the possibility of studying a change to this software to allow synchronization of the clock used for scheduling the transmission of messages with that of your production